

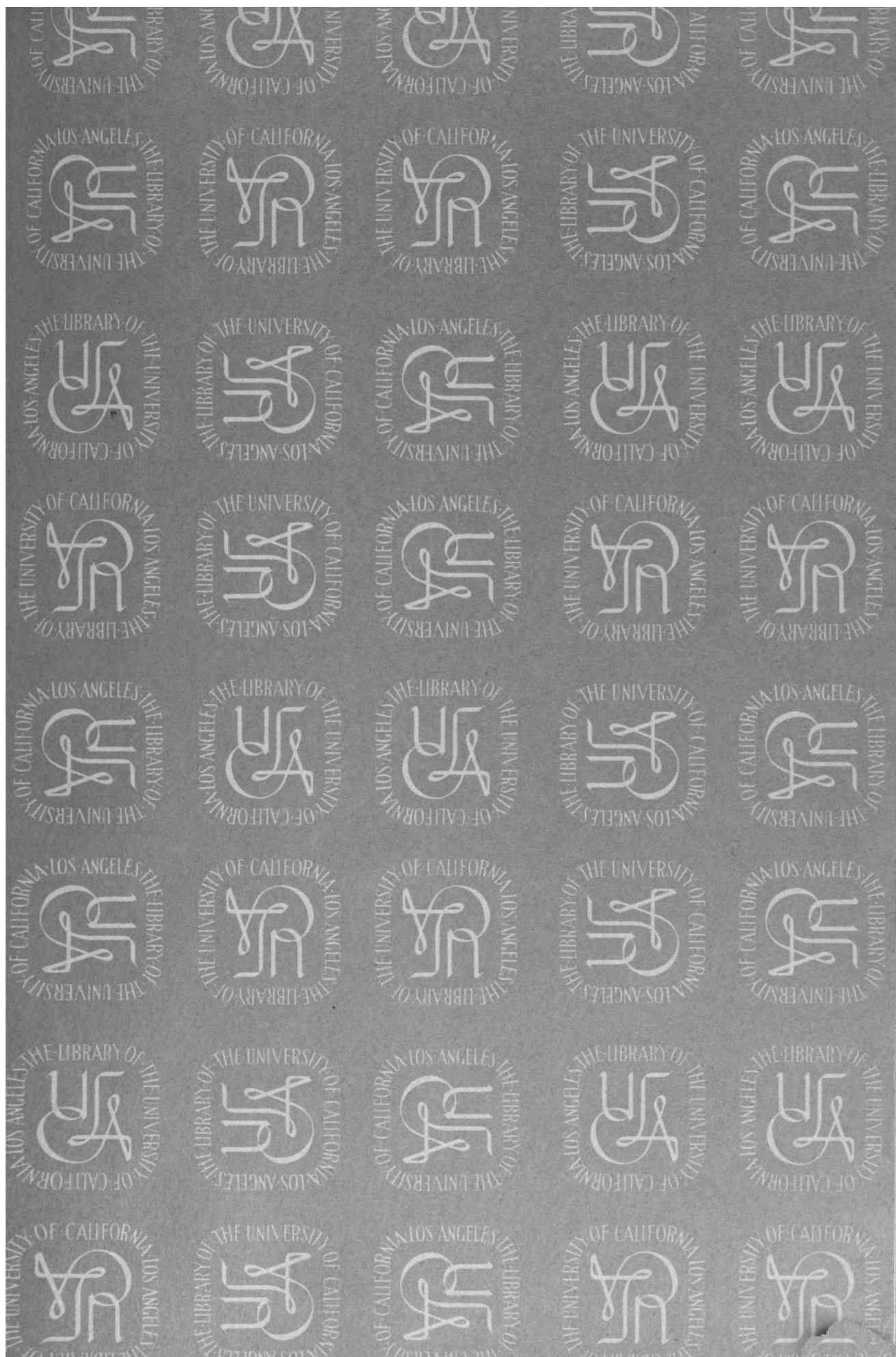
**PAGE NOT  
AVAILABLE**



THE LIBRARY  
OF  
THE UNIVERSITY  
OF CALIFORNIA  
LOS ANGELES

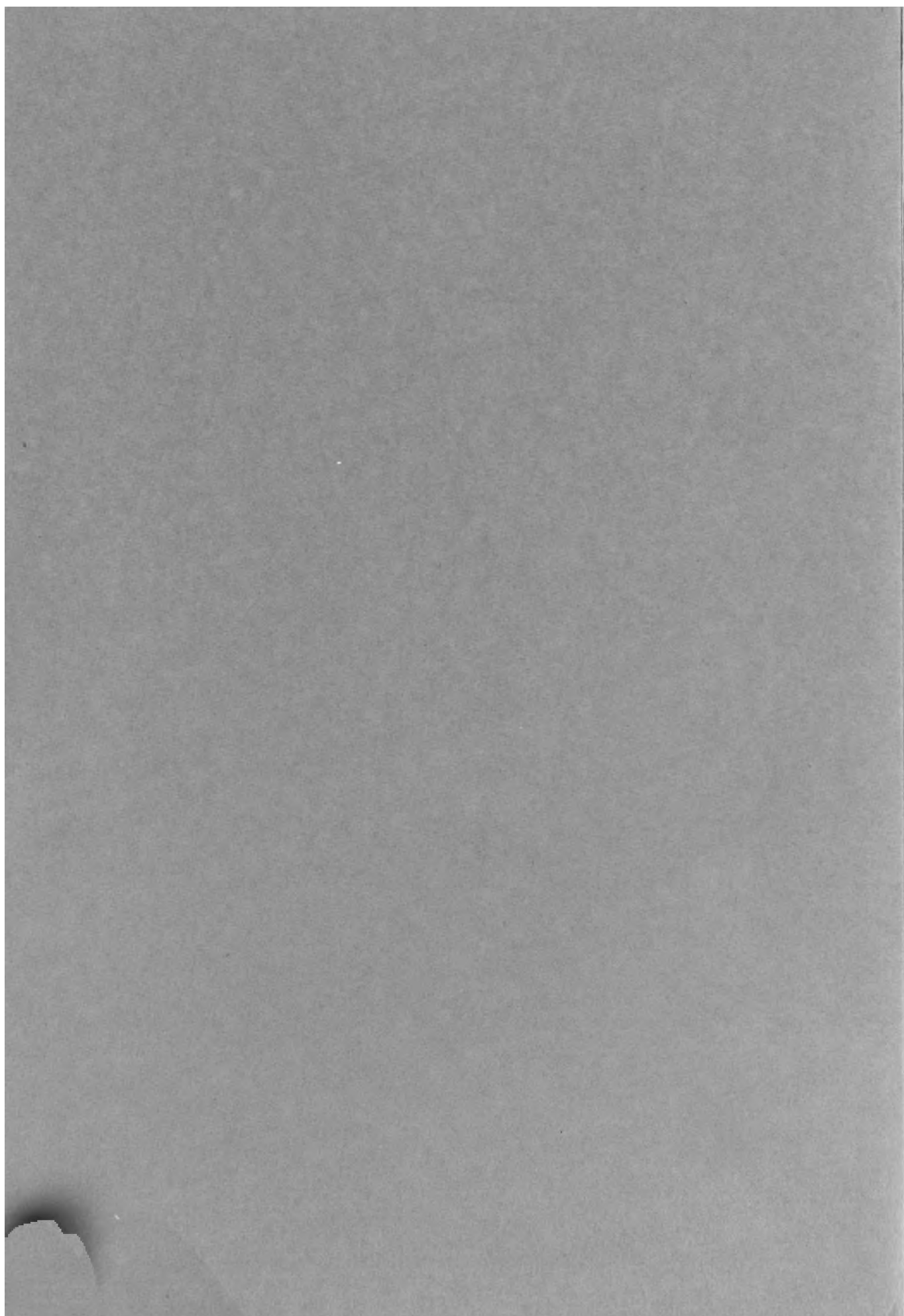
GIFT OF

SAN FRANCISCO  
COUNTY MEDICAL SOCIETY













## An Introductory Address

### ON MEDICAL STUDY.

*Delivered at the Opening of the Winter Session at St. George's Hospital on Oct. 1st, 1901.*

By P. W. LATHAM, M.A., M.D. CANTAB.,

FELLOW AND LATE SENIOR CENSOR OF THE ROYAL COLLEGE OF PHYSICIANS; LATE DOWNING PROFESSOR OF MEDICINE IN THE UNIVERSITY OF CAMBRIDGE; AND CONSULTING PHYSICIAN TO ADDENBROOKE'S HOSPITAL.

GENTLEMEN,—When your excellent and honoured dean conveyed to me the request of the Medical Committee of St. George's Hospital that I should address to you some words of welcome and encouragement at the commencement of this winter session I received the invitation with great pleasure and satisfaction and I highly appreciate the compliment. These pleasurable feelings, however, are not unalloyed with anxiety, but if the suggestions and advice which I am about to offer should in any way lessen the difficulties which I know confront every medical student in determining his precise course of study or should help him to utilise his advantages here to their full extent my anxiety will be amply rewarded.

Never in the history of medicine has there been a time when so much interest was centred on its progress and its triumphs or when so much consideration as at present was given to the necessary training and education of those who, like yourselves, wish to take part in its practice. Medicine as a science and as an art has progressed during the last 50 years with enormous strides and is now progressing at an accelerated rate. Those who, like myself, can look back to a student's life half a century ago and have watched these advances may well be forgiven for envying a body of men whose work of life is beginning in the first year of this twentieth century. To consider one advance; imagine, if you can, what the practice of surgery would be now without the use of anaesthetics—and yet the discovery of the way in which to administer them successfully, a discovery which ranks as one of the greatest triumphs of science, was only made 55 years ago. The first operation ever rendered painless by ether was performed by Dr. Morton, a dentist of Boston, in the United States of America, on Sept. 30th, 1846. Nitrous oxide, or laughing gas, had been successfully employed for the same purpose two years previously. The gas was discovered by Priestley in 1776 and its composition was determined afterwards by Humphry Davy who in 1799, when 21 years of age, found out its intoxicating effect by experimenting upon himself. He also suggested its use in surgical operations, but it was 45 years before his suggestion was acted upon. Here are his remarkable words: "As nitrous oxide in its extensive operation seems capable of destroying physical pain it may probably be used with advantage during surgical operations in which no great effusion of blood takes place." On Dec. 10th, 1844, Horace Wells, a dentist of Hartford, Connecticut, after witnessing the intoxicating effects of the gas at a lecture on chemistry by G. O. Colton, invited the latter to administer the gas to him on the following day, and during the narcosis induced by it Dr. Riggs extracted one of his teeth. Wells then gave it to his patients, but the proper mode of administering it was unknown to him; he was deficient as an experimentalist and the results were uncertain. At one of the hospitals in Boston he completely failed to induce narcosis in a patient operated upon by Dr. Warren, and he was jeered at by the students and called a charlatan and a humbug. Morton, who had been an associate of Wells, made some attempts with this gas but abandoned it; and then experimented with sulphuric ether. He was not successful (so it is said) until Dr. Charles T. Jackson, an eminent chemist and geologist of Boston, pointed out to him the proper mode of inhaling it. The amount of credit due to each of these men for the discovery must for ever remain uncertain. Facts about which there is no uncertainty are that Morton narcotised E. H. Frost with it and extracted a tooth from him painlessly on Sept. 30th, 1846, and on Oct. 17th and 18th following, two operations were performed at Boston by Dr. Warren and Dr. Hayward, the one almost, the other

entirely, without any pain being felt. Now inhalations of ether had been employed for a long time before this for the relief of pain in phthisis, spasmodic asthma, chronic catarrh, dyspnoea, and whooping-cough. Dr. Richard Pearson in 1795 directed it to be inspired from a handkerchief wetted with it and held near the mouth and nose, and subsequent practitioners made use of it in the same way as an anti-spasmodic, so that for half a century practitioners were on the very threshold of the discovery of "anaesthesia" but missed it by not venturing far enough with the experiment. As Faraday said, "Who shall tell that new knowledge is not every day passing before our eyes and yet escaping our notice?" So it was with chloroform. This remedy was discovered about the end of 1831 and the beginning of 1832 almost simultaneously in America, France, and Germany. Guthrie of America and Soubiran of Paris obtained it from chlorinated lime and alcohol, and Liebig from chloral, which he had just then discovered. It was employed in America for the same purposes as ether, inhalations being used to relieve difficult respiration. Dr. Black of Bolton recommended its use internally in 1833 in spasmodic asthma, and about the beginning of 1839 it was used medicinally in Liverpool by Mr. Waldie and Dr. Formby. In 1847 Dr. (afterwards Sir James) Simpson was endeavouring by experiments upon himself and his friends to discover some anaesthetic less inflammable than ether and free from its other drawbacks, and Waldie suggested to him in November of that year to try chloroform. The experiment was successful. Those who inhaled it grew exhilarated and several became insensible. Simpson renewed his experiments and subsequently completely anaesthetised a patient on whom Professor Miller operated for a necrosed radius. With regard to the discovery of anaesthesia Dr. Stillé says: "If the most valuable discoveries in the natural sciences, and above all in medicine, were usually the result of logical inferences from experience, a means of producing insensibility to pain would undoubtedly have been one of the first fruits of man's ingenuity and research. But such discoveries are very differently made. All, or nearly all, of them are the results of an apparently fortuitous concurrence of circumstances such as human wit alone could never have created." And again: "It is a singular coincidence that chloroform and ether should both have required for their introduction as anaesthetics the coöperation of a scientific and a practical man. What Dr. Jackson was to Dr. Morton in America, Dr. Waldie the chemist was to Dr. Simpson in Great Britain. Practical genius is not less essential than scientific genius to the advancement of society." I suggest that it was the want of the coöperation of the practical man with the brilliant scientist of 21 years of age that delayed the fulfilment of Humphry Davy's prophecy. The practical man appeared nearly 50 years later in the person of Wells, but it was not until after another 20 years that the efficiency of the gas was fully recognised in England. The first tooth extracted under its influence at the Dental Hospital in London was on March 31st, 1868. Since then tens of thousands have had reason to be thankful to Priestley and to Humphry Davy for their "laughing gas." And so, Gentlemen, I come to my text: While you struggle to be scientific do not forget to be practical. I differ altogether from the definition given by a great Conservative leader of a practical man as one "who practises the errors of his predecessors." The practical man, in my opinion, is one who utilises the experience of his predecessors, neglects no opportunity of increasing his own knowledge, and is open to receive and to utilise knowledge from every quarter. He is an observer of nature and a careful watcher of natural processes and operations in all their varying forms. The practical man administers his remedy because he knows that under certain conditions it will cure or relieve his patient, but if he has an inquiring mind he goes further—he seeks to define those conditions and to find out what is the active element in his remedy, and for the latter purpose he has often to search a long time, even though assisted by the most scientific of assessors. The practical physician for three centuries successfully used burnt sponge and seaweed in the treatment of goitre before Courtois, a soda-water manufacturer, discovered iodine in 1811. Seven years later this substance was found by Straub of Hofwyl in sponges and other substances, and then Coindet of Geneva, suspecting that their curative property was due to the iodine, at once put his conjecture to the test of experiment and met with astonishing success. After 80 years' use of the remedy we still want a scientific explanation of its action. We are told that it is an "absorbent" and that its physiological

action is to "alter nutrition." These are merely words. The practical man says that, properly administered, it will cure certain forms of goitre and other morbid conditions—he knows the "go" of the thing; he would be glad to know "how it goes." The same may be said of many other remedies. Chloral, the substance from which Liebig obtained chloroform in 1832, was only introduced into general use as a remedy in 1869 by Liebreich. The practical man knows how to use it advantageously, but if he asks why it causes sleep all he is told is that, like opium, it possesses the "vis dormitiva." The notion which led to the use of this remedy—namely, that in the alkaline blood it was converted into chloroform and a formate—is now held to be erroneous, but the value of the medicine and the merit of its proposer are not thereby diminished.

The history of bromide of potassium shows how the practical physician—i.e., the clinical observer—may precede and out-distance the scientific investigator. Bromine was discovered by Balard, an apothecary of Montpellier, in 1826, and being chemically similar to iodine its potassium salt was at once tried in cases of scrofula, syphilis, and glandular swellings, diseases in which iodine had proved useful. No improvement, however, took place in these disorders under its use, but its effects in large doses on the brain were noticed. Its reported action as an anaphrodisiac led Sir Charles Locock in 1853 to use it with marked success in hysteria and hysterical epilepsy, but it was rarely employed by others until 1858, when Dr. C. B. Radcliffe tried it for the various forms of epilepsy and epileptiform disorders and declared that it was the remedy in these cases upon which most dependence could be placed. This was confirmed by Dr. Hughlings Jackson and by Brown-Séquard. Dr. Russell Reynolds says: "It is the one medicine which has, so far as I know, proved of real service in the treatment of epilepsy." Scientific investigation as to its effects on animals produced results which were confused and contradictory. Professor Binz says: "This was due to various causes. In the experiments the effects of the potassium constituent were either not taken into account or the results were entirely attributed to it. The experiments were made on *animals* which in comparison with man are in general much less sensitive to the action of narcotics, at least so far as the cerebral hemispheres are concerned; the experiments, moreover, were made on *healthy* animals, without reflecting that a healthy nervous system may probably be less influenced by any sedative remedy than one which is morbidly excited; and finally in many cases the dose employed in the experiments was far too small. A rather lengthy series of experiments ..... showed how facts that had been established in the diseased applied to the healthy and furnished an explanation of some of the peculiarities which had been observed in experiments on animals."

The history of other remedies could easily be cited to illustrate my contention that the practical observant physician is an important, if not the most important, factor at the present day in the progress of medical knowledge, but I should weary you. I cannot, however, resist pointing out that the present mode of treating tuberculous patients is not modern and that the open-air treatment of phthisis did not originate and was not "made in Germany." In a work written nearly 50 years ago Dr. J. Hughes Bennett says, first with regard to diet, that it should be "one of a nutritious kind, consisting of a good proportion of animal food abounding in fat. .... No effort should be spared to overcome the obstacles which prevent food of sufficient quality and quantity from being digested. .... The strongest stimulus to the appetite is exercise." The extent to which this "should be carried ought always to be short of anything like fatigue. .... Going out in the open air at least should be insisted on, as sitting in a garden or open place is much better than remaining in a room, the person, of course, being well clothed according to the season of the year. .... The necessity of proper ventilation in the sitting and sleeping-rooms ..... is of essential importance. I agree with Dr. McCormack of Belfast in thinking that the best ventilator is the sash window let down for an inch or so from the top, and that this with an open fire sufficiently ventilates the apartment; ..... the air which enters the lungs should be as pure as possible and constantly renewed." And then he makes a suggestion which even now might be advantageously acted upon. For those who financially are unable to search out a favourable climate on the continent "what is required is the means of exercise in the open air, whether on foot, on horseback, or in a carriage, where the patient is protected from cold winds and where the mind can be amused by

pleasant sights and cheerful conversation. Such is the case in all those favoured localities considered best for consumptive people, and some such advantages might be derived from the Crystal Palace at Sydenham, near London. Delicate individuals can be transported there by means of a close carriage in the worst seasons without difficulty and on entering it could breathe for hours a pure balmy air, meet their friends, take exercise in various ways, read, work, and otherwise amuse themselves. Such an outdoor means of recreation, combined with careful hygienic regulations at home, will go far to remove many of the difficulties which we have to encounter in the ordinary treatment of consumption."<sup>1</sup> This I conceive is the "open-air treatment" in a nutshell—proper food, exercise short of fatigue, and abundance of fresh air. I have some satisfaction in thinking that at an early period I adopted Dr. Bennett's views and that in 1864 in my first contribution to medical literature<sup>2</sup> I endeavoured to show that with these three factors we had the means best adapted to prevent or arrest the progress of the disease.

Gentlemen, I ask you to fit yourselves to become "practical" physicians and surgeons in the sense in which I have used the term. How are you to do so? The great majority of those whom I am addressing have deliberately chosen the medical profession in order to live by it and, with an honourable desire to support yourselves, you wish to exercise its practical duties as soon as possible. On this account you should be shown the nearest and the easiest way to attain your end. You are here, not to become philosophers or scientists or physiologists, but are students seeking how you may prolong life or cure disease and endeavouring to acquire such knowledge as will enable you to undertake the serious duties of a medical practitioner with credit to yourselves and advantage to the public. Keep this important fact firmly in your mind. A sound knowledge of what is absolutely essential is what should be conveyed to you and what should be rigidly exacted from you in the examinations, and nothing more—and with ordinary diligence, with continuous work, and with reasonable intelligence that sound knowledge can be attained within the period which has been assigned for it by the General Medical Council and by the various corporations. These authorities have decreed that the first two years of your student life should be devoted to the study of chemistry and physics, biology, anatomy, and physiology, and wisely and well have these subjects and their order been suggested. At the end of your first year you are expected to pass the examinations in physics, chemistry, and biology, and at the end of the second year your examination in anatomy and physiology, and with steady work you can do this. A great deal, however, will depend upon your previous school training, whether, in fact, you have been taught "how to learn"—how to concentrate your energies on the work immediately before you, and whether your reasoning powers have been carefully developed and educated and your judgment strengthened. This is the training you ought to have had, and with such a training you will gain infinitely more knowledge in a given time and be able to apply your knowledge far better than the man who has not gone through it. Chemistry is the science of experiment, anatomy is the science of observation, and in physiology are combined pure observation and experimental research; but in studying these sciences, unless you have been trying to draw correct inferences from your observations and experiments, you will simply remain the mere collector of facts without the power to apply them. As a recent writer in the *Times* says: "Men of science are composed of two widely different classes—a very small minority who discover laws and a considerable majority who only discover facts. The two classes are far as the poles asunder, but they are constantly confounded together by the vulgar who are even more likely to be impressed by the work of the latter class as more within their comprehension than they are by that of the former. The worker at facts alone may well be little more than Johnson's definition of a lexicographer, 'a harmless drudge,' but he has been taught correct methods of working, and will pursue to the end an investigation the clue to which has been put into his hand. When Pasteur had once satisfied himself that certain forms of disease were constantly associated with the presence of minute organisms foreign to the natural state of the diseased body, his far-seeing intellect

<sup>1</sup> The Pathology and Treatment of Pulmonary Consumption, by John Hughes Bennett, M.D., F.R.S.E., second edition, 1839, p. 135.

<sup>2</sup> On the Early Symptoms of Phthisis and the Means Best Adapted to Prevent or Arrest its Development. Cambridge: Deighton, Bell, and Co., 1864.

led him at once to the generalisation that the organisms were the cause of the disease, and that all diseases of analogous type must be caused in a similar manner. He had excogitated a law which even in its immediate applications was of incomparable importance to the human race. His followers, having learned correct methods of investigation, and improving these under the guidance of experience as they worked, set themselves to find and identify the organisms of this disease and of that, of diphtheria, of cholera, or of typhoid; and so, in one sense, they were rightly spoken of as the 'discoverers' of the organisms in question. But they had discovered only what they were sure to find; and their discoveries differ from those of their master as the discovery of a mathematical formula differs from those of the work of the calculator who employs it." I therefore ask you in your study of chemistry, anatomy, and physiology to limit and narrow the ground to what is absolutely essential, but to cover the whole of that narrow limit and to master every inch of the ground. Make your foundations secure as far as you go. Later, when you have become practitioners of medicine, you will realise how advantageous it may be to enlarge your knowledge, not only for your professional work but as a means of relaxation, and if your foundation is sound the additions can easily be made. I can readily imagine that the wonderful revelations of physiology and the brilliant experiments and results achieved by the chemist will so charm and interest you that you may be induced to devote all your energy to one or other of these sciences and forsake the study of medicine. If you resist the temptation I will promise you that in your later studies and in the application of them in the practice of your profession you will find an interest and a fascination in your work equal—nay, transcending—any that can be called forth from any chemical or physiological experiments, for your investigations will then be upon human beings and you will be engaged in the great experiments of appeasing pain, of repairing injuries, of controlling disease, and of averting death, and to attain to success in such experiments is well worth all the care and skill and experience that you can bring to bear upon them.

To the vast majority of students, wherever their studies may be pursued, it is disastrous to spend more than two years over the preliminary scientific studies. That this is so I can clearly demonstrate by the results obtained at the university with which I am most familiar—namely, Cambridge. At that university chemistry, anatomy, and physiology are recognised as subjects qualifying for graduation in pure science, and those who successfully pass an examination in them in the Natural Sciences Tripos are entitled to the degree of Bachelor of Arts. With this inducement before them the medical students at Cambridge, with very few exceptions, proceed to a degree in arts by the Natural Sciences Tripos, and devote three entire years to the study of chemistry and physics, anatomy and physiology, and so spend a large amount of time over many parts of chemistry, physiology, and so on, which have no direct bearing on the curing of disease. Unfortunately, it is decreed that however complete and extensive may be the acquaintance which a candidate shows with any of these subjects in the Tripos examination it does not exempt him from re-examination in the same subjects for the medical degrees, a pretty clear admission by the medical authorities that the scientific training for the Tripos is something outside and differing from the training necessary for the student of medicine. What is the practical result? 50 per cent. of those registered as medical students at Cambridge never proceed to the degree of Bachelor of Medicine. By referring to the Medical Students' Register issued by the General Medical Council you will find that the students who were registered as commencing medical study at Cambridge in the six years from 1888 to 1893 inclusive numbered 630, distributed as follows:—

	Number registered after the previous examination.	After the degree of Bachelor of Arts.	Totals.
In 1888 ... ..	85	10	95
" 1889 ... ..	92	5	97
" 1890 ... ..	97	3	100
" 1891 ... ..	94	9	103
" 1892 ... ..	106	4	109
" 1893 ... ..	116	10	126

Five years of medical study are required, but I find that very few indeed at Cambridge obtain the degree of Bachelor of Medicine in less than seven years from registration. Some take eight or more. Taking seven years, then, as the mean time, I find from the Cambridge Calendar that in the six years from 1895 to 1900 inclusive the number who proceeded to the degree of Bachelor of Medicine was in 1895, 52; in 1896, 52; in 1897, 54; in 1898, 55; in 1899, 54; and in 1900, 49—a total of 316. That is to say, that whilst 630 students were registered as commencing medical study in Cambridge in the years 1888 to 1893, in the years 1895 to 1900 only 316 proceeded to the degree of Bachelor of Medicine, leaving a deficiency or wreckage of 314, or 50 per cent. It would be very interesting to know what has become of these 314. No doubt a certain number, allured by the attractions of science, have given up a medical career, and in the future will be heard of as distinguished chemists, anatomists, or physiologists, and some may have obtained their qualifications elsewhere; but what about the rest? I fear that the three years' study of science for its own sake or for the attainment thereby of an arts degree, without any reference to the special requirements of the medical curriculum, had an unfortunate effect in determining the course of those men who abandoned the wish to obtain a medical degree at Cambridge. I think that this illustrates very forcibly what I was trying to impress upon you, that if you are to become qualified practitioners within five years it is of the first importance that your study of these preliminary sciences should be limited to two years and that you should be required to know only that which an ordinary individual can learn in the time, and that which is absolutely essential—nothing more. Shall I surprise you if I say, Do not strive in the limited time before you to know too much, to cram in too much science, but learn to apply what you do know. As has been well observed, there are men "who never have done and never can do anything because they know too much, whilst others possessing comparatively small knowledge are so dextrous in its use that they have ridden over the heads of others far their superiors in acquirements."

I now turn to those who having passed the examinations in anatomy and physiology must, in the next place, learn to apply their knowledge and are preparing for the final stage—the examinations in medicine, surgery, and midwifery. Henceforth work in the hospital wards must engross the greater part of your time. Having acquired a knowledge of what is essential as regards healthy function and healthy structure, you have now to investigate morbid processes, to learn how to detect these morbid conditions in the living subject, to watch their origin and progress and termination, to see how they differ from the healthy processes, and not only must you continue to accumulate your facts, but your sense of sight and touch and hearing must be educated and cultivated. What is obvious to an experienced observer may be overlooked by the student; the sounds which are readily detected by the trained ear are inaudible to the untrained; the cultivated touch detects variations which are imperceptible to others. These senses can only be educated by practice. The numerous phenomena and the various physical signs connected with diseases of the chest, for instance, can only be recognised after prolonged and careful study of a large number of cases. You must look and hear and feel for yourselves, and having made your observations you must think and reason upon them and must learn accurately to interpret their meaning and to draw correct conclusions from them. This kind of knowledge is only to be acquired at the bedside or in the out-patient room from practical demonstrations and your own personal investigations. Your course is, as hitherto, largely controlled by the requirements of the licensing bodies, and lectures and demonstrations have to be attended and practical work has to be accomplished according to a certain defined plan which will be duly pointed out to you by your teachers.

The medical student is, unfortunately, a much-lectured individual, and I think I shall enlist the support both of teachers and of students when I express a hope that the time is not far distant when systematic lectures on pathology, pharmacology, medicine and surgery, and mental diseases will be discontinued and students thereby enabled to devote more attention to practical work and demonstrations. Formal lectures on these subjects are the inheritance of an ancient system, the relics of a time when books were scarce, but the system lingers on and apparently will "die hard." Eight-and-twenty years ago I had the privilege accorded to me by the then Editor of THE LANCET of

advocating in that journal<sup>3</sup> two important changes in the interest, as I conceived it, of medical students. These were, first, the promulgation of schedules limiting the range of the examination in each subject, the questions to be strictly kept within this range, and the examination therein to be searching and complete; and secondly, the abolition of certificates of attendance on lectures with the provision that when a student presented himself for public examination he should bring with him certificates from his teachers of having gained sufficient knowledge to justify him in so doing. These views were endorsed by the Editor of THE LANCET<sup>4</sup> and by Professor Alexander Harvey<sup>5</sup> of Aberdeen. The following year at the meeting of the General Medical Council in June, 1874, the two following recommendations were adopted:—

That the Council recommend that in the case of certificates presented before admission to the examinations of the several licensing bodies each should include a statement from the teacher or teachers that the candidate had satisfactorily attended examinations from time to time held on the subject of study to which the certificate relates.

That it is desirable that, in the examinations on several of the subjects of the curriculum—such, for example, as botany, zoology, chemistry, and materia medica—the area of the examination should be limited and defined.

Here were two points gained. In the following year, however, the General Medical Council spent most of an afternoon in discussing the merits of the recommendations which they had passed a year before. The discussion ended simply with a resolution instructing the registrar to write and inquire what the licensing bodies thought of the recommendations and how far they had been carried into effect. The discussion, however, was not wholly fruitless. In the first place, it elicited from the then representative upon the Council of Oxford University, Dr. H. D. Rolleston, an exceedingly clear and decided expression of his views on medical training. He went further than I had ventured to do. He maintained that the examiners should have no extraneous information from teachers or elsewhere, but was strongly in favour of free trade in teaching and learning—i.e., of leaving every man to his own will as to the time and place in which to acquire his knowledge: a proper and sufficient examination being the sole test whether the knowledge had been acquired. In Dr. Rolleston's opinion all that licensing bodies had to do was to find out for themselves whether students possess certain knowledge and aptitudes, and that examiners had no business to concern themselves with details of the process by which teachers give and students receive that knowledge. Sir William Gull took the same view, saying that if a candidate was found to possess adequate knowledge it was really of no consequence how he came by it. In the second place, that discussion by the General Medical Council led to schedules being framed by some of the examining bodies and class examinations instituted in the schools. Students who are preparing for the Conjoint Board examination have now the schedules to guide them, and in the school of St. George's Hospital there are highly qualified teachers appointed to direct and test and examine you from time to time in the progress of your studies, but you are still compelled to attend systematic lectures and to produce certificates of attendance on them. Dr. Rolleston's free trade in teaching and learning is still, except in his own university, a thing of the future. Influenced, no doubt, by Dr. Rolleston's spirit, certificates of attendance on lectures, on medicine, surgery, pathology, and pharmacology, are not required at Oxford; what are required are certificates of having performed certain practical work. Nowhere are medical students better trained in the preliminary studies than in that university, and the regulations both for degrees in medicine and for the honour school of natural science are models which other universities and licensing bodies might copy with advantage.

Leaving, then, the subject of systematic lectures I will say a word or two about your clinical lectures and practical demonstrations. For these I hope you will have a capacious appetite, followed by a vigorous digestion. Take in all you can assimilate, but whatever you attempt let it be done thoroughly. In commencing hospital work you will perhaps learn more in the out-patient department than in the wards. The junior teachers have more time generally for tutorial work than their seniors and here you will be instructed in, and have the best opportunities of learning, the elementary work—of learning, that is, how, by general symptoms and

physical signs, to diagnose a healthy organ from one that is diseased. The out-patients can bear the examination of their various organs with much less inconvenience than the in-patients. The latter generally are more seriously ill than the out-patients, and I think they should never be examined except by those who have already acquired some skill and dexterity in the performance. At the same time do not neglect the wards. Go there and quietly observe the cases, but make no notes except mental ones. Your business at first is to observe, not to record, and after a time you will learn what it is you should record and how you should arrange it for future use and reference. Study the physiognomy of disease—you will often find it characteristic; note the position of the patient, the way he breathes; feel his pulse and educate your touch to discriminate its qualities; and look at his tongue and make any observations you can without inconveniencing the patient. Then in three or four months, when you have become familiar with some of the leading symptoms of disease and have learned how it is to be detected and how one disease is to be distinguished from another, you can begin to take notes. You will need to learn now what changes of structure take place in the diseased organs, how the morbid conditions are to be recognised, and how far they explain the phenomena which characterise the disease. You will further wish to know how the disease is to be fought, how death is to be averted, what effect remedies have upon the disease, why the action of the remedy seems to differ in one case from another, and so you turn your attention to pathology, pharmacology, and therapeutics, and thus, at last, you blend into one harmonious whole the study of the pathology and treatment of disease. This is your life's work, and, begun now, must be continued throughout the whole period of your professional career. Begin it well—watch the patients carefully throughout the disease; take accurate notes, but only of a few cases, and those of well-marked disease, at first; discuss and compare the cases with your fellow-students; see how far your account agrees or not with what is stated in the text-book; satisfy yourself as to the healthiness or unsoundness of the other organs of the body besides the one prominently implicated. Do this habitually and systematically; you will find it of great service in after years. The practice will soon become easy, afterwards almost automatic. Study one class of diseases at first from beginning to end, and as you become familiar with their symptoms then proceed to another class. Trained in this way, cultivating your powers of observation and of diagnosis both in medical and surgical cases, you will fit yourselves to hold with great profit and advantage the various clinical appointments in the hospital and you will be enabled to present yourselves for your final examinations not only without fear as to the result but with credit to your teachers.

Finally, having reached this goal and attained to the dignity of qualified practitioners, you come to the "parting of the ways," each one taking his special path in life. Some will have the good fortune to obtain the resident appointments in this hospital, with all the responsibilities and advantages attached thereto. Others, perhaps, will offer their services as assistant to some medical practitioner. I strongly advise such a course either in London or the country, especially if in either case you can have the opportunity of spending even a few hours each week in the wards of a general or special hospital. There is a great deal to be learned in many ways in the management of a private practice which I need not specify. In years gone by this was acquired during an apprenticeship before commencing hospital practice and it was acquired so insensibly that it appeared easy and natural, but it requires training and it requires time, it is beyond the hospital programme, and it can best be acquired, as I have suggested, by working under the supervision of one who is actively engaged in private practice.

Other students, again, who have the means may wish to devote their energies to the elucidation of some special problem in pathology or therapeutics. The field is enticing and full of promise, for we are on the eve, I believe, of great discoveries, chiefly, if not entirely, through the aid of organic chemistry. For this purpose and at this stage of your career your time will be well spent in obtaining a thorough insight and a manipulative skill in the methods of this branch of science. Every day is making it clearer that organic chemistry must play the chief part in the advancement of medical science and that we must look to it more and more to explain the various physiological, pathological, and therapeutic processes about which at present we can only

<sup>3</sup> THE LANCET, Oct. 18th, 1873, p. 575.

<sup>4</sup> THE LANCET, Oct. 25th, 1873, p. 602.

<sup>5</sup> THE LANCET, Nov. 29th (p. 765) and Dec. 6th (p. 801), 1873.

vaguely guess. What, for instance, is the chemical nature of the proteids? Of what organic constituents are they made up? We know some of the constituents which can be derived from them, but in what form do these substances exist in the proteid body itself? What a flood of light would be shed on all our investigations if those questions could be answered and if we knew what molecular changes were induced in proteid by physical or chemical agents. These questions seem to be at the root of all physiological knowledge, and until they are solved we must still unwillingly grope in the dark.

Our indebtedness to the bacteriologist is already incalculable, but bacteriological science is only in its infancy. We know a good deal about the bacilli and a little about the poisons they produce and the disorders with which they are associated. We know, too, that in some disorders—diphtheria, for instance—if antitoxin be used early enough the disorder can be absolutely held in check, can be cured, but sometimes (so the bacteriologists tell us) the bacilli may remain attenuated or scotched—not killed—in the immunised patient and ready, on finding suitable soil in another host, to develop their virulence and their poisonous products. Organic chemistry must, and in time will, tell us what is exactly the composition and constitution of these toxins, albumoses, antitoxins, &c., and how they may be artificially synthesised in the laboratory. The vegetable alkaloids, quinine, morphine, atropine, and others, have been isolated within the last century and the syntheses of citric acid and indigo have been effected from their elements. The isolation of the animal alkaloids may be more difficult but it will be accomplished. Some have already been obtained, others will follow; the isolation of the antitoxins will be the next chemical triumph, and then will come the synthetical production of these life-saving substances.

But I hear someone exclaim, "Stamp out infectious disease by isolating every affected individual and by quarantining every person who has been exposed to the possibility of infection, and there will be no need for chemical triumphs, no need for antitoxins, for the specific malignant bacillus will have ceased to exist." There is some truth in the assertion. Outbreaks of infectious disease have been localised and completely stamped out in this way, and what has been done on a small scale can, it may be argued, be done on a large. But is it so? If every infectious disease were absolutely eradicated could they not rise again *de novo*? Is it impossible for the beneficent micro-organisms which swarm within us and around us to acquire virulent properties under certain conditions of food, temperature, and environment? There is abundant evidence that the virulence of parasitic or pathogenic organisms can be so modified and attenuated that they cease to be poisonous, but why this attenuation takes place is not clearly explained. Under special treatment, however, the organisms can regain their virulence. If this is the case it seems incredible that organisms of similar structure, though apparently harmless, cannot be cultivated in some way or other so as to become pathogenic—that the typhoid bacillus, for instance, should not be the debased offspring of some such organism as the bacillus coli communis, or the bacillus anthracis of some such organism as the bacillus subtilis. If these virulent and pathogenic organisms were really all included in Eve's apple they must have been there only in an attenuated form and required to pass through a generation or two of fallen humanity in order to develop their virulence. But I do not hold to that view; I believe that from the neglect of ordinary sanitary measures innocuous or beneficent micro-organisms may become virulent and that infectious diseases may arise *de novo*. Of what beneficent organism the tubercle bacillus is the degenerate offspring I cannot tell, but we believe now that after it has commenced its ravages on the human frame we can by the "open-air treatment" attenuate or kill the bacillus and arrest or, as some say, cure the disease. Would it not be better to try the treatment a little earlier, to say to the healthy, "Live regular and moral lives, take sufficient food and breathe pure dry air"? If they have the sense and the means they will do this habitually and so escape sanatorium life. But how about the poor? Can those who live in close alleys, in insanitary cottages, in crowded sleeping-rooms, and on insufficient food escape the scourge? These are the conditions under which tubercle bacilli develop, nay, under which, as I believe, they originate. Open up the narrow streets, remedy defective drainage, apply the open-air

treatment to those who are still healthy, and fewer sanatoria will be necessary. More than a quarter of a century ago, simply by improving the drainage and thus drying the soil the mortality from consumption at Salisbury was lowered by 49 per cent., at Ely by 47 per cent., and at Rugby by 43 per cent., and this was the result of utilising only one of the factors I have enumerated. The great problem is to determine from what organisms these pathogenic microbes arise and under what conditions they acquire their virulence. The "development of species" of these benign and malignant microbes must, as in other parts of the animal and vegetable kingdoms, be subject to some laws. What are the laws? I venture to prophesy that they will be formulated before many years are over. May it be the good fortune of some of those whom I have now the privilege of addressing to verify the prophecy, to discover the laws, and to solve the problem.

## Introductory Address

ON

### LIFE AND CHARACTER.

*Delivered at Charing Cross Hospital Medical School at the Opening of the Winter Session on Oct. 2nd, 1901.*

By JOHN W. TAYLOR, M.D., M.Sc.,  
F.R.C.S. Eng.,

PROFESSOR OF GYNECOLOGY, BIRMINGHAM UNIVERSITY.

GENTLEMEN,—It seems but a few years since I sat in the old lecture theatre across the road and listened to my first introductory address from the late Dr. Julius Pollock. It is, however, some 30 years or more, and as I look back over all the road that I have traversed since that date and think of the journey, the men with whom I have travelled, the inns at which I have rested, and then look forward and see the long white road still stretching upward—for

"The road winds up-hill all the way,  
Yes, to the very end"—

the main thoughts which come to my mind are those connected with the mystery of this life and the unfinished lessons to be learnt from its experience. All the manifold teachings of science tend to magnify one's conception of its greatness. Not without reason are we told that—

"Planets have toiled, forgotten suns have burned  
That we may live,"

and limitless as is the Past out of which we came, none the less limitless is the Future into which we go.

Heirs, then, of all that limitless past, born to take part—and some worthy part—in that portion of the great unfolding peculiar to your age, I would have you take no mean view of your mission and your destiny, feeling assured that however highly you regard it you will still fail of the reality. Whatever may await us in the future, this much is given us here and now—the gift of the present life; a fortune which may be squandered or spent wisely; a trust for which, in one way or another, we may have to account, and that to the uttermost farthing. Therefore, it is not a thing to be treated too lightly. Its little ironies may well be subject for humour and amusement, but it is too great a thing to be sacrificed in the pursuit of pleasure; and, on the other hand, it is hardly so grievous that a man need go to the cloister or the desert in order to escape its many contaminations. As de Tocqueville has wisely said: "Life is not a pleasure or a sorrow but a grave business, which has been entrusted to our charge, and which we have to carry through to an honourable end." "A grave business"—a business that has its dangers and hardships, its times of adversity, in which we have to

"Breast the blows of circumstance  
And grapple with our evil star."

"A grave business," which has its times of triumph when the goal of years has been achieved and a light which is of neither sea nor land floods the long white road with radiance. A business "entrusted to our charge," and therefore one that we cannot shirk and one that we cannot lay down until the Bearer of the Great Invitation crosses our threshold. So to every man, without question or choice, comes the fortune and

responsibility of life; so to every man comes the subsequent question and choice. "What will you do with it?"

To some of you this day of the introductory address will mark (as it did to me) the final decision, the acceptance of a special career or destiny, the definite entry on a life-work. Some events in our lives appear to have only a temporary significance; some have an extended influence over months or years; others, again, are essentially for ever. To this class the step you have taken to-day belongs. Little as you may now realise it there will probably be no returning. Of all my fellow-students in the old days I can only think of one who really changed his profession, so that henceforward all your life will be fashioned and coloured by the profession you have chosen, and the great Mistress of Medicine in whose service you have enlisted will demand your constant and unswerving allegiance. The choice is a great one, but it need not weigh on you too heavily. So wide, so increasingly vast, is the realm of medicine that in her service every order of mind can find congenial work. In anatomy and physiology, with all their connected studies, in bacteriology, in practical medicine and surgery, in sanitary science, in the medical departments of the army and navy (so well and faithfully served by many Charing Cross men), and in the various legitimate departments of special practice, there is ample scope for various shades of taste and acquirement. Indeed, to most men the manner of following the career they have chosen is of far greater importance than the making of the choice. Perhaps you may remember how this idea is expressed by my fellow-townsmen, Mr. Shorthouse, in his novel of "John Inglesant." One of his characters applies it—and to the extremest limits—in his review of the different sides of political and religious life which presented themselves for choice to the hero of the book. "Hereafter," he says, "it will be of little importance which of these new names, Cavalier or Roundhead, you are called by, whether you turn Papist or Puritan, Jesuit or Jansenist, but it will matter very much whether you acted as became a man and did not flinch ignobly at the moment of trial. Choose your part from the instinct of your order, from your birth, or from habit, or what not; but having chosen it follow it to the end. Stand by your party or your order, and especially in the hour of trial or danger be sure you never falter; for be certain of this, that no misery can be equal to that which a man feels who is conscious that he has proved unequal to his part, who has deserted the post his captain set him, and who, when men said, 'Such and such an one is there on guard, there is no need to take further heed,' has left his watch and quailed before the foe, to the loss, perhaps the total ruin, of the cause he had made his choice." I think, with still greater justice, that we might paraphrase this and say: It will hereafter be of comparatively little importance whether you are a soldier or a sailor, a clergyman, or a medical man, or a lawyer; but it will matter very much whether you acted as became a man called to the duties and responsibilities of the life you have chosen. Every now and then a man is born with overmastering talent for some special work and is unhappy and "sterile" until that work is found, but to most men of honest purpose and diligent habit every calling will afford opportunity for advancement and for honour. A good man comes to the front in any work he undertakes according to his industry and opportunity, and nowhere, I suppose, is opportunity richer than in the walk you have chosen.

But the service of your mistress must be whole-hearted and generous. What gifts have you to bring with you? A healthy and well-trained body, a well-educated mind, a high moral purpose—all these she claims for really successful service; and if to this can be added the beginning of some wider culture in literature, in art, and in music, the better and richer will be that service. I am not one of those who think that the education of medical students and practitioners should be restricted as far as possible to scientific subjects only. There are undoubtedly some men of fine but limited capacity who do well to narrow their energies and fix these solely on the subjects of their special study, but to men of wider taste and sympathies this is not only unnecessary but impossible. Accessory studies, however, should be strictly and proportionately subservient to one's life-work and the special study necessary for its mastery. If this be assured, the wider the culture the finer and more delicate will be the perception of various shades of difference between health and disease and between man and man—the better

will the observer recognise and describe points that have been missed by those before him, the greater will be his power to grasp and to investigate the larger problems of medicine—those involving many issues.

The ability to express oneself in clear and vigorous language is rarely gained unless one's study of literature has been considerably wider than that afforded by professional writing only. The power to portray both the normal and abnormal by sketches in pencil or colour (so great an advantage in all records of work and in teaching) must be prefaced by some artistic education and practice; and accurate perception of pitch in sound (so much needed in medical diagnosis) comes best by musical training. In addition to these some knowledge of modern languages, and especially of German, is almost a necessity if one is to keep pace with the days in which we live and the work that is done in them; while to those who may hereafter devote themselves to the practice of surgery some knowledge of handicraft, of the bench and lathe, and the practice of any neat handiwork that presents itself will be of decided service. This use of the hands, however, will almost always be spontaneously acquired by anyone who has a surgeon's instinct.

These, then, are some of the good gifts which tend to fit the possessor for the study and practice of medicine and which, if you possess them, you lay to-day upon her altar. Hitherto you have sought them, perhaps, for your own pleasure and glory. Henceforth you hold them as more or less subservient to your life-work and as helping to fit you for the service you have undertaken.

If I look back on my own experience of life and of its testing power, how do these greater qualities of body, of intellect, and of morals stand out in life's struggle? What is their relative value, and what instances can I recall of gain or loss resulting from their presence or their absence? One of my old fellow-students, an athlete and good cricketer, finding as a young practitioner his time unoccupied, scorned to pretend otherwise, spent much of his long summer days in the cricket-field, and, in his own words, "cricketed himself into the best county practice of the district." Doubtless he had many other solid qualities behind his cricket scores, but this was the door or gate which opened for him the pathway to success. In many other ways, too numerous to mention, the value of a healthy body has been abundantly evident in the lives of many practitioners of my acquaintance and has contributed very largely to their success: in none, perhaps, more so than in those who, by virtue of good work well done, have come to the front and are taking leading positions in their profession. It is not only the manner or quality of work which tells. The very ability to do more than others for years together, which comes from extra physical strength and endurance, has given some men an opportunity of forming an experience beyond their age, and enabled them to reach a point in advance of their fellows which they could never have gained without a splendid physique as the basis of their labour. And what shall I say regarding the want of this? It hampers a man at every turn, and though it is by no means fatal—much of the very best work of this and every age having been done in spite of physical weakness—yet animal strength and spirit, and the natural courage and unconscious power which go with it, are of the very essence of success.

Some of the very saddest recollections of my life are of eight professional friends—fellow-students—nearly all of about my own age, but not all students of this hospital—in each of whom this power was gratuitously and irretrievably lost by the incurrence of syphilis in early life. One who was well known in the athletic field and was the champion high jumper of his day succumbed to paraplegia. Another, a brilliant student, who took his Fellowship with me and shortly afterwards obtained a good hospital appointment, gradually lost his reason and died of brain lesion. Another, somewhat similarly affected, recovered slowly from specific hemiplegia, but with more or less impaired function and brain power. Another became blind. Another suffered and, I believe, died from the effects of stricture of the rectum; and yet another, who probably possesses, or did possess, exceptional teaching ability which might have been put to noble use, became affected with locomotor ataxy, and now lives a brave but comparatively inefficient life with crippled power and feeble health. I could go on if I wished and could, if it were justifiable, give names and dates and circumstances, but I have probably said enough. Again, I could, of course, append

to this list a companion one of lives which have been more or less ruined by alcoholism, but sad as are some of the cases it would include, none strike me as quite so tragic, so irremediably hopeless, as those which I have narrated. The steps leading down to such tragedies are unclean and dangerous. There is no necessity to tread them, and you must bear with me if I venture again to insist on de Tocqueville's definition of life as not only something entrusted to our charge, but a trust which must be carried through to an honourable end. Dishonourable—or rather, perhaps, unhonoured—ends lie in wait for all of us who are careless of the sacred nature of the trust, and though suffering may hereafter find its outcome in redemption this is neither “here” nor “now.”

In dealing with mental gifts and acquirements I find a difficulty. The field is a restricted one. The portals of the profession are guarded, and wisely guarded, by entrance examination, and all throughout the course your progress is tested by repeated examination, so that no one of really feeble or deficient intellect is likely to gain admission. A clear brain and good reasoning powers are undoubtedly needed for the proper understanding of most of the higher problems of medicine and for the prosecution of all original work, but the bulk of the studies in which you will be engaged require rather application than brain power. As anatomists you must know the human body as the good cabman knows his London; in microscopical anatomy and physiology you learn to know the buildings of which the city is made, their several uses and the work that goes on in them; while in bacteriology you learn to recognise—and by several alluring devices to hunt, confine, and tame—the various animals, domestic or wild, which may seriously infest the city.

In all your studies, even the most advanced, of practical medicine and surgery the simpler mental processes of observation and memory are those which will engage you most, and though to be a really good observer demands a quick perception, undivided attention, and constant practice, no one who has done fairly well at school need be seriously afraid of the mental strain involved by the study and work before him. On the other hand, there is plenty of simple steady work to be done day after day, and there may be some danger that the man with quick and able mind may under-estimate the importance of the daily “grind.” We all of us know the brilliant student, the pride of his school and his college, who occasionally, from first to last, carries all before him and that easily; but on looking back I am rather astonished at the number of good men I can recall to mind, clever men, men whose mental endowment was, if not of the first rank, yet far above the average, who still, for some reason or other, failed to fulfil the promise of their youth. On the other hand, I can remember some men who were naturally not clever or brilliant, whose brains, in comparison with their fellows, were slow and dull, who, in spite of this, by taking rather longer time to do the requisite work, did well, some one or two achieving high distinction. For no man knows a thing so well as he who has had hard work to learn it, and no one, when the lesson is learnt, can so well understand the difficulties of those below him and therefore so perfectly help them. It would, of course, be utterly wrong to argue from this that quickness of perception and intellectual ability are of little worth. They are in one sense the special desiderata of the age. So full is this of rapid change and progress that a certain sharpness and alertness of mind are absolutely necessary in order to keep abreast of the times and occasionally to obtain a chance of leading in the van. In no branch have we seen this more than in surgery, but it applies to almost every calling now, and he who lingers long upon the way is left behind in the race. You know this, you hear it spoken of, you read about it in the daily papers, and the necessity for keenness of intellect, for taking advantage of every kind of technical training, for promptness, hustle, and despatch, is preached—and rightly preached—at every corner.

If this were an age in which these things were undervalued none could speak more strongly than myself on the incalculable advantage of a good brain, trained by education to the very highest pitch of excellence, and therefore enshrining an intelligence well tempered and acute. But, of itself, this does not necessarily command the highest and most permanent success. Even in the life of scholarship or science, where the value of the intellect rises immeasurably, there is still something in the man outside it on which its beneficent use depends, while in the actual practice of

professional life thought must be united to action at every turn and both be controlled by healthy judgment for fruitful service. Indeed, the most marvellously gifted man I have ever known, whose powers of intellect and of expression were quite phenomenal, who was, in thought and practice, almost a generation ahead of his contemporaries, must be held to have failed of his proper destiny for want of something—some directing and controlling force—which might have kept the fountain of his genius purer, free from the extravagance of personal ambition and from the mud of unwise and often unjust controversy. And, as I think of these things, I recall also the names of three other of my contemporaries whose histories may possibly be familiar to you—three great Englishmen, men of commanding ability and promise, the sun of whose reputation and career set when it was yet morning, and in one case, that of perhaps the most brilliant and fascinating intellect my age has known, with a “horror of great darkness.”

What, then, is of greatest value? If life has taught me anything it is that a high moral purpose is the most important factor in one's life-work; in other words, it is character rather than intellect which determines true success. Now I do not think that one believes this or realises it in what is called “student-life.” We and our fellows are “gentlemen.” The main moral virtues—truth, honour, courage, temperance, gentleness—we take for granted. The real differences between us, the differences that “matter,” appear to be those of body and mind, and if we are deficient these are the ones that trouble us. Broadly speaking, this is a healthy view to take. It usually argues that the foundation-principles of morality are so well laid that, though possessed in varying degree, no one is without them, and the atmosphere of *noblesse oblige* engendered by this faith helps many a weak man to act up to the standard of those around him. But, little by little, there comes disenchantment. The friends whom we have trusted fail us; some men we meet take advantage of our youth and inexperience; some astonishing lapse of high principle in the conduct of one or more of our fellows startles us; or, on the other hand, some good thing well done by another—it may be some brave act or the ready owning of a fault—arouses our own inner consciousness and calls forth the involuntary question, “Should I, could I have done the same?” The life of the great city in which we find ourselves begins to alarm us by its injustice and oppression. Its hideous contrasts, the slavery of the poor to the rich—quite as real as that which existed in pagan Greece and Rome, but no longer open and naked and unashamed; the separation and isolation of the successful from the unsuccessful; the hypocrisy of society, in which vice is frowned upon openly but encouraged in secret, in which the highest and holiest things are prostituted to ignoble uses; the hopelessness of obtaining any collective effort to alter this,—all strike upon the dawning consciousness with confused but painful clamour. In one way or another we wake from dreams and “make-believes,” finding that real life is different from what we fancied. We strive, perhaps, to do right and have to walk in hard places, while others, with lax principles, achieve a kind of success—a success, however, that is worse than another man's failure, a success which cannot be touched with dissecting forceps. As life opens out before us, with cares and temptations and sudden tests for which we are unprepared, most of us, if we are honest with ourselves—I speak from my own experience—find that we, too, are somewhat deficient: that industry, or perseverance, or courage, or sincerity, or self-control—or other virtues I have not named—are not so perfect in us as they should be, and there is no school of morality other than the questionable and polluted one of life itself around us in which we can study and train and become stronger. And then we finally realise—rather late, perhaps—that these, after all, are the things that matter most.

It would be impossible for me now to consider all the good qualities which go to form the perfect or ideal physician or surgeon, but if you ask me what are the most important of these, without which—or the determination to possess them—it is hardly worth while entering on the actual practice of your profession, I should put in the first place love of truth, then love of one's kind, and then love of service. By love of truth I mean not only the love of careful and exact statement, though this is of the utmost value, but also the discoverer's love of fact, for the gaining of which he will endure hardship. By love of one's kind I mean a ready interest and sympathy in men of all classes, a

genuine recognition of brotherhood which will make you enter into their difficulties and sorrows as your own, respect their helplessness, and have patience with their ignorance. By love of service I mean that disposition or attitude of mind and body which finds its chief delight in helping others. If a man possesses these qualifications, or strives for their possession, though he may have taken no honours at his university people will trust him, because they can believe in his word and his purpose; they will understand him, because he is not ashamed of kinship; they will love him in proportion to his work for them. And the work of such a man will be good work. It may have the limitations inseparable from the measure of his attainment, but it will be free from humbug or pretence, and every essential accessory within his own control (such as the strictest surgical cleanliness and care) will conspicuously mark his conduct of the cases entrusted to his charge.

But what if we know that we are wanting? What if some of you feel (as I have felt) that neither the body, nor the mind, nor the character that we desire is ours to-day? What if some of us know that we inherit weaknesses as legacies from those before us? Then, whatever may be said regarding bodily attainment (and this is far more capable of development under culture and training than many have imagined), of this you may be certain, that growth of mind and character are practically illimitable, and that there is probably nothing short of insanity that cannot be overcome by education in the highest sense of it. In these days, when a little truth is occasionally written in scattered papers on the subject of heredity and almost any amount of fictitious nonsense dealing with this question is scattered broadcast, it seems necessary to preach again the gospel of true education. Believe me, there is no weakness you cannot grow out of if you set your heart upon it, there is no strength or goodness that you may not aspire to and in some measure attain.

*"Μακάριοι οἱ πεινῶντες καὶ διψῶντες τὴν δικαιοσύνην, ὅτι αὐτοὶ χορτασθήσονται."*

But the way is long, and the heart must be set upon the goal.

"The road winds up-hill all the way,  
Yes, to the very end,"

and the hardest lessons are not to be learnt at the beginning. This is why I said that a high moral purpose was needed rather than a catalogue of virtues. It is the taking of the up-hill path that is the important matter; the doing of our duty to the best of our ability day by day that brings with it light and leading. For as the distance lengthens the prospect widens; we get out of the narrow defiles and tangled mazes of the earlier journey, and though the ascent becomes steeper and more painful, more and more of its direction becomes open to our view. Of course, there are times of darkness when we can no longer, perhaps, see the way, but if we look upwards there are always the stars to guide us. Even when these are hidden, if we wait patiently, quietly, perseveringly, the cloud will finally "lift," for the stars are always there. Before the ending, too, the sights and scents and stillness of the everlasting hills are about us and inspire calm and quiet confidence.

But will not the trend of thought I have been pursuing—the influence of character on individual life—admit of a wider application—the influence of character on national life? I have lately been visiting some towns in the South of France, where remains of Roman occupation, of Roman architecture, and of Roman life are both plentiful and striking. At Arles, which is a veritable museum of antiquities, the arena is still standing: colossal, magnificent, built on a scale rarely or never attempted by us for any permanent building. It holds easily 25,000 people, and is still occasionally used on great public festivals. Close by are the ruins of the Roman theatre, and still further on we find the old burial-ground, or Elysian Fields, the cemetery of "les Aliscamps." Here we may note the care and love and reverence which the Romans lavished on their dead: the massive tombs, many of them double for husband and wife; the touching inscriptions commemorating the life and work of those who had gone before: here, a builder of ships; there, a young girl, fond of, and proficient in, the art of music, her tomb carved with representations of the mandolin or guitar, the early organ, and other instruments of music; or here, again, the tomb of a boy of 17 whose sorrowing friends mourn his premature decease. Again, if we pass to the Musée Lapidaire and see the carving, the jewellery, and the pottery of these days,

some difficult to imitate and impossible to surpass; if we look at the faces of these Romans preserved to us in marble, strong, fine, intellectual, like the best English faces of to-day (and there is much more Roman blood in English people than many have supposed); if we look at the sculptured heads of their children, and particularly I might single out the head of the boy (supposed by some to be a son of Constantine) which for purity and beauty is perhaps the most wonderful fragment of realistic sculpture in the world,—if we consider all this, it seems impossible to conceive how these men, so great, so powerful, so wise, so loving, the successful colonisers and rulers of nearly all of the then known world, could have lost their empire and become merely a shadow and a name. If history is to be believed—and we can read it directly in the later literature of their race—it was not intellectual gifts which became wanting, it was not directly bodily strength that failed, but it was the national character which slowly became depraved. Sapped by the loss of national faith, the increasing growth of luxury and softness, the limitation of families, the relaxation of marriage ties, the elevation of the wanton and courtesan, the disgust of service, the importation of foreign slaves and soldiers, who, many of them, became better and greater than their masters—it was the gradual corruption, effeminacy, and moral decadence of the race which led to its downfall and its ruin.

And what of the national character of England in our own days? Are there not some indications of similar dangers? If you think so—and I could give you many reasons for this fear did time permit—individual awakening may do much to help yourselves and the profession which you have chosen. It may finally arouse collective action and do much to help England. Gentlemen, we have been passing, and are still passing, through a time of "sifting," as every time of war must be. Older and, as I think, purer ideals are again coming to the front. We begin to realise that the "battle is to the strong," and that the real wealth of a nation consists not so much in her material prosperity as in the number of healthy, upright, and manly lives who can give themselves to her service and protect her in the hour of need. Such have not been wanting in our recent struggles, men who

"Never turned their backs but marched breast forward,  
Never doubted clouds would break,  
Never dreamed, though right were worsted, wrong would triumph.  
Held, we fall to rise, are baffled to fight better,  
Sleep to wake."

But we want more of these, and of this faith or spirit which ensures the final victory. You who will be the medical attendants and advisers of the future generation may do much by steadily honouring and upholding higher ideals of individual, family, and national life to infuse a new and healthier spirit into the coming age. For it is in the spirit of Browning's epilogue that the hardest tasks are always accomplished—it is in this spirit that a nation may sometimes be born again.

## Abstracts OF

### INTRODUCTORY ADDRESSES, ETC.,

DELIVERED AT THE

MEDICAL SCHOOLS

AT THE

Opening of the Session 1901-1902.

UNIVERSITY COLLEGE HOSPITAL.

INTRODUCTORY ADDRESS BY RISIEN RUSSELL, M.D. EDIN.,  
F.R.C.P. LOND., ASSISTANT PHYSICIAN TO THE  
HOSPITAL.

DR. RISIEN RUSSELL, after welcoming the old and new students, expressed the hope that none of the latter were entering on their medical studies with the set determination that they were going to be specialists, as such a course was fraught with great danger. Their object should be first to become good all-round men, well versed in every branch of their profession, as no one could become a good specialist who had not fortified himself by a thorough general knowledge of medicine and surgery. After insisting on the

importance of anatomy and physiology he pointed out how essential a knowledge of bacteriology had become to the medical man and how chemistry, always a most important subject in the medical curriculum, had acquired additional importance since a knowledge of chemical methods had become so necessary to the bacteriologist. Chemistry had also become more important because chemical analyses of the blood, the excreta, and the contents of the stomach were now indispensable in the diagnosis, prognosis, and rational treatment of many diseases. Special attention ought to be paid to chemical pathology and they might consider themselves fortunate that there was now a clinical laboratory in the new hospital that Sir Blundell Maple's splendid liberality had provided for them, where they would be able to learn how to investigate some of the complex problems of disease by methods that were calculated to make diagnosis less conjectural and treatment less empirical in the future than they had been in the past. In congratulating the students on the profession they had chosen he said that it would give them every opportunity of increasing their intellectual powers and of widening their sphere of knowledge even far beyond the limits of the subjects with which they would be directly concerned. It would afford them due scope for the full exercise of all their faculties, and if they made good use of their time they would in the end have the inestimable satisfaction of knowing not only that they had done good work, but that it had been for the benefit of their fellow-beings.

He next called their attention to the special advantages which there were in entering the medical profession at the present time. No other profession could hold out the prospect of so quick a return on the outlay that students were obliged to make. In support of this view he pointed to the fact that during the last seven years there had been a falling-off in the number of men entering the medical profession, so that there were now 1660 fewer men qualified to practise medicine than there would have been had the same number joined the profession each year since as did so in 1893. In the meantime, as the figures of the last census showed, the population of the country had increased to the extent of over 3,500,000 during the last decade. The colonies had always supplied many good openings for men who had received their medical education in this country and they might be expected to continue to do so, but to South Africa more especially he felt justified in looking for a large number of openings for young medical men when the development of the country was proceeding with after the termination of the war. Then, again, the vigorous and laudable action of the General Medical Council in suppressing unqualified assistants and in stamping out the iniquitous system of "covering" had made many openings for qualified men. The expert committee appointed under Mr. Brodrick's presidency had been an earnest of the determination of the Government to reform the Army Medical Service, and the committee's report that had just been published contained provisions that could not fail to increase the popularity of this service. There was ample evidence to show that the Admiralty would have to follow the example of the War Office and institute reforms in that branch of the service. So unpopular had the medical service of the navy become that but few candidates could be induced to come forward to fill the vacancies that were being caused by resignations and retirements. A good example of the state of things that obtained was to be found in the fact that 14 vacancies were advertised in August and only seven qualified medical men responded to the call. Of these only four were available, as one was found to be physically unfit and two failed professionally to satisfy the examiners. Reforms in the medical services of the army and navy would not only provide good openings for young medical men, but as more men were attracted by the services those available for the civil population would be reduced and the chances that a young man would have of making his way in private practice would thereby be greatly improved. How small was the reserve of young medical men, even at the present time, had been demonstrated by the experiences connected with the South African war, for those surgeons required for the army had not been supplied without inconvenience in other quarters. Provincial and other hospitals had had difficulty in securing men to fill posts as house physicians and house surgeons; steamship companies had experienced a similar difficulty in getting medical officers; and many medical men in general practice had not found it easy to take a holiday this year

either because it had not been possible to find locum-tenents or because the remuneration such substitutes now received was more than many practitioners could afford to give. These various considerations led him to conclude that the medical man who was ready to practise his profession in five or six years' time would be in a most satisfactory position, so that students now commencing their medical studies could look forward to finding openings for the practice of their profession five years hence with a degree of certainty that did not obtain in any other profession.

He complained of the unsatisfactory public status of the medical profession. From the members of no other profession was so great an expenditure of time and labour required, for a man had to devote five years of his life to study before he could become qualified to practise. The time was not too long, as it was to the best interests of the community that a liberal amount of time should be devoted to acquiring knowledge that was so essential to the well-being of mankind, but a profession whose services to the community were admittedly so important as to need such careful preparation was one that was justified in looking to the State for some better signs of appreciation of its worth than had hitherto been forthcoming. The composition of the House of Lords supplied an example of the small value placed on the medical man, for while that assembly included clergymen, military men, and lawyers, only one medical man had as yet been deemed worthy of a seat there. He submitted that medical men were as much needed in the deliberations of an assembly where matters of the greatest possible moment to general medicine and to sanitation were decided, as bishops, generals, and lawyers, and that there were to be found in the medical profession men as distinguished and as high in the social scale as the members of these other professions. He further contended that the services that the medical profession had rendered to the community called for such recognition of its most distinguished members as would raise the public status of the profession to a higher level. While feeling that they had a right to look to the State for better appreciation of their worth, he could not but admit that the unsatisfactory public status of the medical profession was in some measure due to the way in which some of its members deported themselves, even when they occupied high professional positions. Men of the stamp to which he referred created an unfavourable impression on the public mind which was not readily effaced, so that in forming an estimate of the profession from a social standpoint the public remembered them and forgot the many polished gentlemen that there were in its ranks. He accordingly exhorted the students so to order their lives as not only to sustain but to raise the general tone of the profession. Another reason why the profession did not rise to its proper level in public estimation was the difficulty that the public appeared to have in distinguishing between the medical man of the present day and the apothecary of the past. They appeared to consider that the two were much the same, and this erroneous idea was fostered by the circumstance that so many medical men still dispensed their own medicines. He recognised the difficulties that would have to be contended with in many an out-of-the-way part of the country were medical men not to dispense their own medicines, but such cases were in the minority, and the majority of medical men in private practice could discontinue dispensing medicines with the greatest possible benefit to themselves and to the public. The time now spent in doing druggists' work could be utilised to far greater advantage to themselves and to their patients if it were devoted to reading to keep themselves informed of the advances that were constantly being made in every branch of medical science; abolition of the practice would help to educate the public to regard the medical man as something superior to a mere vendor of drugs and would teach them to value him for his advice instead of for his medicine. The inability to appreciate the difference between the medical man of the present day and the apothecary of the past probably accounted, in part at any rate, for the frequency with which people consulted druggists, and so far did they fail to understand the difference between a qualified medical man and a druggist that it had been recently reported that a coroner and his jury actually accepted the evidence of a druggist as to the cause of death of a clergyman whom he had been attending.

He next spoke of the school to which the students had come to receive their medical education and said that he could do so more freely than would have been possible for

many of his colleagues, as in eulogising University College they would have been lauding themselves, in that their brilliant achievements and the achievements of some of their predecessors had done much to place the college in the proud position it now occupied among the medical schools of the metropolis. The congratulations which he received from his friends when he was fortunate enough to gain the appointment which gave him the privilege of addressing them were most of them couched in terms that either stated or implied that there was something that called for special congratulation over and above that which his appointment on the staff of any other medical school would have necessitated. Their comments confirmed what he had already known—viz., that the position University College occupied as a scientific school was very high, that its staff was composed of men of great distinction, that they had always enjoyed a great reputation for their powers as teachers, and that the standard of teaching had always been high. The influence that University College had had on medical teaching in London was very great. There was not a medical school in the metropolis that had not numbered among its teachers men who had received their education at the college, and an even more wide-spread influence had been exerted on the medical teaching in this country, in that at various centres out of London where men assembled to receive a medical education the names of University College men were prominent among those whose duty it was to conduct the teaching. The Universities of Oxford and Cambridge were numbered in the list and, as most of his audience knew, one of the Scotch universities had comparatively recently secured in a former student and professor of the college a man whose name ranked among the first physiologists of our time. The scientific education received at the college was unsurpassed by anything that could be obtained elsewhere in this country, and the spirit of scientific research that was active had led to brilliant achievements by those who had worked there and by others who had gone forth to prosecute their researches elsewhere.

He begged his hearers to cultivate the spirit of scientific inquiry. Every scientific research, if properly conducted, might be expected to disclose some new fact, and this was the only way in which true progress could be made. The medical man was in a peculiarly enviable position in that most of his researches when crowned with success tended in a more or less direct way to promote the welfare of mankind, some of them indeed being directly concerned with the relief and others with the prevention of human suffering. Dr. Ferguson's presidential address at the last annual meeting of the British Medical Association was too fresh in his memory, however, to make him unmindful of the fact that inestimable benefits had been conferred on mankind by the discoveries of men who did not belong to the medical profession. It was to men of science that they owed every real fresh advance in medicine. The so-called practical man could do little more than apply and utilise the discoveries of the scientist. In exhorting them to cultivate the spirit of research he did not in the least wish them to neglect the part of their training that would fit them to become practical physicians and surgeons. A belief prevalent among some people that a man could not be both scientific and practical, and that the cultivation of the one faculty must of necessity be at the expense of the other, he regarded as a great fallacy. Medicine and surgery could only be expected to be advanced by a proper commingling of the scientific and the practical, so that scientific principles might find practical application in the elucidation and treatment of disease. If they required any stronger incentive to induce them to aim at being able some day to advance the science of medicine by their own investigations, let them read of the horrors of surgery in the days before antiseptics were introduced in the treatment of wounds, and compare that picture with what they saw when the time came for them to take up their duties as dressers in the wards of the hospital connected with the college. He would be surprised if the contrast between the two pictures did not stimulate them to emulate the example of men like Pasteur and Lister, even though they felt mere pigmies compared with those giants. Well might Lord Lister ignore the vituperations of a gang of agitators who, in the face of such an incalculable benefit as he had conferred on his fellow-beings, dared to treat him to some of the abuse that they visited on all those who by their researches sought to mitigate the sum total of human suffering. He expressed the hope that he was addressing some who had completed their medical

studies and who now wished to take up research work, at any rate for a time. The inducements for men to devote their time to scientific work were few, as the scientific spirit was not yet sufficiently alive in this country. Neither the Ministers who controlled the purse-strings of the country nor private individuals who possessed fortunes that they were anxious to utilise for the public good had had the scientific education necessary to make them realise that the true way to promote the welfare of the nation was by endowing research. More research scholarships were needed, and more laboratories where the atmosphere was saturated with the spirit of research and where the directors received emoluments that were sufficient to allow them to give their whole time to the prosecution of their own researches and to the directing of the investigations of others who worked under their supervision. He was not altogether without hope of aid from the State, for although statesmen had not shown that they in the least understood what an incalculable amount of good might be expected from encouraging men to devote their lives to research, the keen interest that His Majesty the King had always taken in scientific matters and his gracious recognition of the value of research, at no time more clearly expressed than in connexion with the recent Congress on Tuberculosis, would, he trusted, lead Ministers to recognise the importance of this question. Meanwhile, he looked with confidence for help through the munificence of private individuals. He had great hopes that the feelings which prompted Lord Iveagh to found the Jenner Institute of Preventive Medicine and which induced Mr. Andrew Carnegie to give £2,000,000 to the universities of Scotland were not wholly wanting in other wealthy men in this country, and that the wonderful foresight and magnificent liberality of these two men would serve to stimulate others to emulate their excellent example.

#### MIDDLESEX HOSPITAL.

INTRODUCTORY ADDRESS BY THOMAS H. KELLOCK, M.A.,  
M.D. CANTAB., F.R.C.S. ENG., ASSISTANT SURGEON  
TO THE HOSPITAL.

IN welcoming the new students the opinion was expressed that rarely of recent years had the prospect in the medical profession been brighter than at the present time. Various causes—amongst them the addition of a year to the length of the curriculum, the substitution of qualified for unqualified assistants, the war in South Africa, the widening fields in the colonies, and the prospect of better conditions in the army—had all, it was stated, had their share in considerably increasing the value of the services of a well-qualified man. The advantages to the average man of an education at one of the smaller schools were mentioned, chief amongst them being the comparative ease of obtaining the resident appointments and the great value and recommendation of these in later life.

The main part of the address was devoted to a consideration of the relations between students and the hospitals during the time of their pupillage and afterwards. Passing over briefly the time a student passed in the school before commencing practical work in the wards and out-patient rooms, and pointing out the importance of a student making the best use of that time and learning well work that he was little likely to have to go back to, and of his getting into a good habit of work, it was said that in the future it was possible that the time when a student began his practical work might mean for all what it now meant for those who came from the universities a first introduction to the hospital. It was easy to forget what past and present students owed to the hospitals, the enormous sums of money which had been contributed to them had enabled them by years of useful work to build up such a reputation that they had become the resort of the poor directly accident or disease came upon them. They could thus place at the disposal of the student a large mass of clinical material under the best conditions for studying it, one of these being the fact that in a hospital a patient consented to, and expected, a proper examination. The hospitals, too, provided the funds for acquiring the new and expensive apparatus that the progressive medicine and surgery of to-day rendered necessary, and students as well as surgeons got the advantage of this. It was then considered what a student could do for the hospital in return. By carefully performing his duties when acting as clerk or dresser he could not only help himself in acquiring knowledge but also help in the work of the hospital. It was an

important duty of students at all times to be careful of their behaviour and conversation to and in front of the patient. In the wards and in the out-patient and casualty departments hospital patients and their friends were not only observant but had a propensity for discussion amongst themselves; and the welfare of an institution gained or suffered very much by the behaviour, not only of those who had actually to deal with the patients, but of all those who were present, even if they were only onlookers. To learn how to deal with patients was a not unimportant part of a medical education, and very often a man's success, or the reverse, when he went into practice depended as much on this as on his professional knowledge. At the start the young practitioners generally had to deal with patients of a class differing little if at all from those he had seen at the hospital, and it was most important, too, that he should have at least some experience in the management of children and of the parents who bring them. All of these things he could learn at the hospital, and in learning to do them properly he could be of use to the institution. The duty of students to their hospital when outside its walls was obvious. Generations of self-respecting and hard-working men had long since dispelled the idea that medical students were necessarily ill-behaved or rowdy, and those of to-day knew very well that by their behaviour and conversation they could bring credit, or the reverse, on an institution to which they owed so much.

When a man had become qualified and left the hospital to start on the real work of his life there might still be a bond of union between him and his hospital closer than that which connected him to his school or university. He had probably done with the latter altogether, but at the hospital there was always work going on that was of use and interest to a medical man, and if he wanted to spend a few days or weeks in brushing up his knowledge there was one place above all others to which he should go, and that was his old hospital. Students in all departments of the hospital should always make welcome those who had preceded them and who had an equal right with themselves to what was to be learned there. A fact that was not without its lesson was that qualified men were often more interested than the student in the treatment of patients, knowing by experience how important this and also the rapidity with which they could get their patients well were in practice. A correct diagnosis was the real scientific foundation, but would not in itself cure the patient, although it was everything in directing the medical man to what was the correct treatment. There must, the speaker said, be something very wrong with a hospital, its staff, or the medical man himself if he could not find enough, and more than enough, there to satisfy him when he paid it a visit and to prevent his having recourse to post-graduate courses and such like, at any rate for ordinary medicine and surgery.

A very important feature in the relations between medical men and the hospitals was the practice of their patients resorting there for advice and treatment. Statistics showed what a large portion of the population went to the hospitals at some time or another and the question as to how many of them were depriving medical men of their fees by so doing was a difficult one to decide. The majority of the out-patients, for example, appeared to be fairly well-to-do, decently dressed, and sufficiently fed. The very poor and partially starved were decidedly in the minority. Was this because the population on the whole was well-to-do or was it also because the very poor could not afford to live and be out-patients, but had to go to the infirmaries if they could not be admitted to the hospitals? The opinion was expressed that the patients as a rule made no pretence to be worse off than they really were and instances of their dressing in shabby clothes to obtain admission were very rare. The causes that brought such people to the hospital were considered. It could hardly be that they saved money by going, for often their travelling expenses, to say nothing of their time, must be more than a visit to a medical man would cost them. One of these causes was the great confidence that the public had in the hospitals and in the potency of the medicines given them there; they thought that their ailment was sure to be recognised and the right medicine given them. Many medical men had not acquired the art of gaining their patients' full confidence and they came to the hospitals only to see if there was anything more than they had been told the matter with them. Often, too, patients would submit at a hospital to a more thorough examination than they had allowed their medical

man; in this respect at a hospital they had an advantage and were sometimes able to discover the cause of an illness the symptoms of which had for a considerable time resisted treatment. The ways in which medical men and the hospitals could be of mutual assistance were considered, and if at times the relations between them were strained on account of the abuse of the latter by patients, it should be remembered that there were three factors concerned—the hospital, the medical man, and the patient: and often the tendency of each of them was to blame the others rather than to try to remedy that part of the fault which was their own. It was the duty of the authorities at the hospitals to keep a very watchful eye on their wards and their out-patient and special departments and to prevent the admission to them of unsuitable patients. It was quite possible to decline to treat them in such a way as to leave undisturbed the relations between them and their medical man, especially as they very often applied to the hospitals under quite a misapprehension as to the objects of these institutions. By working together the hospitals and the general practitioners could, and probably did, educate their patients and the public generally in such a way as to keep this abuse of the hospitals within very fair limits.

#### LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.

INTRODUCTORY ADDRESS BY F. W. ANDREWES, M.D. OXON., F.R.C.P. LOND., PATHOLOGIST TO ST. BARTHOLOMEW'S HOSPITAL.

DR. ANDREWES said: My first and most pleasant duty is to bid a hearty welcome to the newcomers to this medical school, and I trust that you will gain here not only the adequate training in the profession you have chosen which this school is now more than ever fitted to give you, but also a number of firm friendships and pleasant memories which will remain for your whole lives.

I have next to say something to you—not new, indeed, but I hope true—about the methods of medical education, and especially about the value of a rational perspective in your studies. The enthusiasm for work, which I have found even keener amongst women students than amongst men, entails the risk that you may spend time over things that matter little, leaving insufficient space for more vital matters. It should be the main function of your teachers to direct your energies into the most important channels. No one can in five, or even in 50, years learn all that one could wish about disease and its prevention and treatment. You have to go on learning all your lives and a healthy sense of ignorance is a saving grace. But there are three things which you must learn in your five years of medical study. You have to learn how to learn. Then you have to learn as much as you can of those things which are of immediate and cardinal importance and which will serve as the groundwork for future learning after you commence practice. Lastly, you have to learn how to set forth what you have learned in such a manner as to persuade a board of examiners that you are fit and proper persons to be let loose on the public as qualified medical practitioners. From books and from lectures you may acquire by rote a mass of useful facts, but this is not living knowledge. What you learn from your own observation and experience you will carry with you with an intensity of conviction far exceeding that gained at second hand from reading or attending lectures. For nearly a thousand years during the middle ages medical knowledge stood still because people merely read Hippocrates and Galen and did not observe and experiment for themselves. Modern medicine and modern science date from the time when reverence for tradition was swept away. Nowadays all that we care about is whether a thing is true: we are ready to take the greatest pains to prove or disprove the truth of any given assertion, but we care not who makes it unless it can be shown to be true. Koch is the greatest living bacteriologist, but when the other day he came to London and asserted that human and bovine tuberculosis were not the same thing we did not bow down and accept the statement. We began to weigh the evidence, and all over the world experiments were started to see whether what Koch had said was true. The female disposition is perhaps more confiding than that of the male, so that you must especially be on your guard against accepting as final all that you see in print or hear from your lecturers. Your laboratory and hospital work will give you opportunity for checking and testing for yourselves a large part of what you are taught, and you will not

find that your teachers are annoyed with you for questioning their teaching. You must cultivate your powers of observation, and you will find that making drawings and writing descriptions from actual things or patients will be a valuable help to you.

What you have to learn is largely determined for you by the regulations of the General Medical Council and the examining boards, and the examinations you have to pass appear to shut off your studies into a series of water-tight compartments. You must not accept this point of view; every stage in your studies is a necessary preliminary to the rest. The pure sciences, physics, chemistry, and biology afford you valuable mental training, but they form, also, the absolute basis of physiology. Nevertheless, you have time only to acquire what is absolutely necessary; you must not wander into even the most fascinating by-paths of pure science. It is difficult, again, to exaggerate the importance of anatomy, but even here there are degrees of importance. The knowledge of anatomy required of the surgeon is something like the topographical knowledge of London required of a cab-driver. No cabman can know every by-way in London; there are innumerable alleys down which no cab can drive. But he knows the main arteries of traffic with absolute precision and trusts to his general knowledge of the lie of the land. And in anatomy you have to master the essential and cardinal facts with precision and gain further what general knowledge of the lie of the land you can acquire. Your teachers will emphasise for you the facts which are essential in medicine and surgery.

Physiology must lie at the root of your medical practice. One of the soundest physicians I ever knew, when asked which was the best text-book on medicine, used to reply, "Foster's Physiology." If your watch keeps erratic time you take it to a watchmaker who understands the exact function of every part of its mechanism and who can so adjust its different actions as to make it again a good time-keeper. So you must try to learn how the different parts of the complex human clock-works act together for that perfect balance which we call "health." Then you will be in a position to understand what may happen when the works go wrong. You have to learn physiology in order to understand pathology, and it will help you in surgery as well as in medicine.

Amongst your final studies pathology must take a foremost place. Diseases are departures from the normal in every sort of direction and to every possible degree; hardly any two cases are exactly alike, and if you have acquired a sound knowledge of pathology you will be in a position to look at each case on its individual merits. The methods by which pathology is studied are precisely those used in other pure sciences—observation and experiment; and it is this science which is placing medicine and surgery on a scientific basis. It is plain that a sound knowledge of disease is an indispensable preliminary to its reasonable treatment. In medicine and surgery and their various branches you will have to apply what you have learned to the treatment of living patients, and here the root of the matter is clinical diagnosis. The secret of successful diagnosis lies in painstaking and accurate observation and in reasonable deductions from the observed facts. Treatment is likely to be successful in proportion to the accuracy of the diagnosis. You will need a sound knowledge of pharmacology and you will have to acquire manual dexterity in your surgical work; nor must you overlook the details of nursing.

There are also certain mental and moral faculties which your medical education should cultivate: you will need the training in responsibility and confidence which is given by having to meet medical and surgical emergencies. You must be considerate and tender towards your patients, who come to a hospital primarily to be cured and not that you may learn from them. Never forget that you are women: the feminine character may have its weaknesses in some directions, but in others it has a strength and helpfulness for which the medical profession offers to women an abundant scope for usefulness.

In conclusion, let me say a word about your examinations. In order to pass them you must know your work, but in addition you must be able to show that you know it, and herein lies the art of passing examinations—an art which can be acquired with practice if you are naturally deficient in it. It is the art of exhibiting your wares in a taking style, so that the examiner can see at a glance what you really know. A neat and clearly-written paper may satisfy

him where, with the same amount of knowledge on your part, an ill-written and confused production may result in a plough. You must, therefore, cultivate the art of serving up your knowledge tastefully as an important subsidiary matter in your medical studies.

#### ST. MARY'S HOSPITAL.

INTRODUCTORY ADDRESS BY G. WILLIAM HILL, M.D. LOND.,  
SURGEON FOR DISEASES OF THE EAR TO THE HOSPITAL.

DR. HILL commented on the fact that some 2000 men and women should every year enter on an extensive and expensive course for the purpose of entering a profession that was already moderately overstocked. It was doubtless a question with many whether these young persons were wise and whether it was really necessary to go to the trouble and expense of a medical education. The law hindered no one from practising on the credulity of the public. They lived in an age when there was not only a survival of superstition and a belief in the occult and in quackery of all descriptions, but in an age when there had been a positive revival of an hysterical form of occultism, a jumble of pseudo-science and irreligion. Faith-healing, of which so-called "Christian Science" was the type, was a money-making concern, and a diploma from a College of Psychic Healing could be obtained after a course of study not extending beyond three weeks, in some circumstances in three days. Medicine and religion in remote times grew up side by side and their exposition was in the hands of the same individual, the priest-doctor, and a belief in the occult was therefore a factor in each. Even Hippocrates, who was the first to attempt to put medicine on an improved basis, jumbled fact and fiction and fable in his "humoral" and humorous system of pathology. Every physician of old claimed to be a miracle-worker in a small way on the strength of cures effected through the influence of the mind on the body—that is, by suggestion and expectant attention in functional diseases. The reverence of the Greeks for their dead prevented anatomical investigation. The facts and symptoms of disease, though accurately observed by the Greek and Egyptian physicians, were made to fit in with a fantastic pathology such as that of Hippocrates, or with an absurd philosophy like that of Aristotle, and to each of these was added the tincture of occultism inseparable from priestcraft in all times. This morbid influence to some extent declined in the time of Galen, but it began to luxuriate again in the Dark Ages in association with alchemy, astrology, necromancy, and religious superstition. Faith-healing, touching for king's evil, mesmerism, homeopathy, and clairvoyance, kept occultism going from the time of the Stuarts to the end of the eighteenth century, and the nineteenth century had been remarkable for the revival of the belief in spiritualism, mental telepathy, and "divine healing." Quackery, as represented by fraudulent institutes for the deaf, the sale of ear-drums, and panaceas for every ailment under heaven, appeared to prosper as of yore, and it would continue to do so whilst the majority of mankind were unthinking in medical matters and unable to throw off the occultism of the nursery. The supporters of quackery, Christian Science, occultism, and all forms of medical heterodoxy were found as often in the castle as in the cottage. Religion and theology have nothing whatever to do with the investigation and treatment of disease, nor is prayer recognised as a therapeutic agent in the treatment of organic lesions by orthodox practitioners.

#### PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.

INAUGURAL ADDRESS BY ARTHUR P. LUFF, M.D., B.Sc.,  
F.R.C.P. LOND., PHYSICIAN AND LECTURER ON  
FORENSIC MEDICINE AT ST. MARY'S  
HOSPITAL.

DR. LUFF said: It is 27 years since it was my good fortune to be a student in this school, and I know of no greater honour and no greater pleasure that can be conferred by one's alma mater than for one of its alumni to be entrusted with the duty of delivering its annual address. The occasion is, moreover, a pleasant and an auspicious one, since this year marks the sixtieth anniversary—the diamond jubilee—of the Pharmaceutical Society. I do not propose this afternoon to attempt any historical survey of the progress of the society during these 60 years or to detail the immense amount of work performed by it and the consequent benefits accruing to pharmacy and to the public during that period.

The history of the society, together with a record of its work, was most ably dealt with 10 years ago in the inaugural address then given by that Nestor of the presidents of this society, Michael Carteighe. During the 10 years that have elapsed since the date of that address much good work has been done and many improvements have been effected in the school. In my opinion the most important reform effected during that period has been the abandonment of the first or preliminary examination and the requisition from everyone who desires to enter pharmacy of evidence of an education similar to that which every medical student has to produce. It is impossible to over-estimate the far-reaching beneficial results to which this important step must lead. It will raise the level of pharmacy more than any other reform that has ever been effected by this society. I also offer my congratulations on two events which have occurred during the past decade. The first is the invitation which the Pharmaceutical Society received from the General Medical Council to coöperate in the revision of the British Pharmacopœia—a responsible task which it is peculiarly qualified to perform and for the carrying out of which the research laboratory of this institution has been very appropriately utilised. The second very satisfactory event which deserves special mention is the recognition of this school by the reconstituted University of London, the professors of the school being now extra-mural teachers of the University. The founding of the Northway Butt Scholarship for research work in pharmacy, as distinct from chemistry, is another important event for which the society is indebted to the liberality and foresight of Mr. Butt. I regret that I am not able to place on record the adoption of a compulsory curriculum of study for the minor examination; such a curriculum is, in my opinion, sorely needed, and I believe it would go far to reduce the very high percentage of rejections in that examination.

Pharmacy is a many-sided calling and therein undoubtedly lies one of its chief attractions. The scientific part of the work of an educated pharmacist does not consist solely in the dispensing of prescriptions, important as that branch of his calling undoubtedly is. We hold him to be the responsible person for the preparation of drugs in suitable forms, and for the standardisation of those preparations, while the public have to look to him not only as providing means for the restoration of their health but also have to rely upon him for the safety of their lives. It is but a pessimistic and ignorant view to take that no great amount of skill or of scientific training is required to put together the ingredients of a prescription. Such a view does not recognise, and perhaps the public do not adequately appreciate, the great safeguard to them that the educated pharmacist is. It is no very uncommon matter for the medical man, when hurriedly writing a prescription, to make such a mistake in the dose of an important ingredient that disastrous results to the patient would follow the taking of the medicine if so dispensed; but now, happily, through the far-sighted wisdom, primarily of this society and subsequently of the legislature, the public safety is efficiently provided for. The pharmacist detects the error in the prescription and communicates with the medical man. The public are unaware of the means by which their health, and possibly their lives, have been protected, but how many of my professional brethren have gratefully and thankfully to acknowledge the tact, courtesy, and delicacy with which their attention is drawn to their mistakes by their pharmaceutical *confrères*? Again, it is no very uncommon matter for a prescription to contain such incompatible ingredients that perhaps the active, and, maybe, poisonous, principle of the medicine is wholly precipitated, and so might possibly be entirely taken in the last dose, with results which would probably be disastrous to the patient; but here, again, the skilled pharmacist acts as a guardian of the public safety by detecting and pointing out the error that has been committed. But, unfortunately, both medical men and the public are tending heavily to handicap the pharmacist in that important function, and are in great part rendering him impotent to safeguard the public health, for there is a growing practice which is rapidly threatening to undermine to a great extent what I consider to be the skilled and rational employment of therapeutic agents in the treatment of disease. I refer to the too general use of powerful drugs in compressed forms and of proprietary preparations. I do not for one moment wish to suggest that the various forms of compressed drugs have not their proper uses; undoubtedly lamellæ and tabellæ of active principles in the hands of medical

men are most convenient and useful for hypodermic and occasionally for other forms of administration; but it is the ready facility with which powerful drugs prepared in this form are obtained by the public which constitutes so grave a danger, a facility which is responsible to a great extent for the increasing practice of self-drugging—a state of affairs which I am afraid has been brought about by these preparations being so indiscriminately and so largely prescribed by medical men. To take one instance, it is to the ease with which such preparations can be purchased by the public that, in my opinion, is due in great measure the prevalence of the comparatively modern and excessively pernicious evil—the cocaine habit. Equally bad is the use of some of the proprietary preparations which are so speciously puffed; with the samples and laudatory advertisements of which the members of my profession are so profusely deluged, tempting them, as they do, to the slovenly and enervating habit of thinking that the writing of an order for such a preparation is the writing of a prescription and gradually rendering them absolutely impotent to exercise the true art of prescribing. Many of the preparations of that kind are, I believe, productive of infinitely more harm than the quack medicines which to some extent they are replacing, for the former are frequently powerful, and in unskilled hands dangerous, drugs, whilst the latter, though generally worthless, are to a great extent innocuous.

The fact is, that the art of prescribing—that is, of ordering suitable remedies in suitable forms for the treatment of morbid conditions—is declining; it shows a fatal tendency to be usurped by the manufacturer. I am bound to confess that the primary cause of this evil is due, not to any imperfections in the training of pharmacists scientifically to compound and dispense medicines, but to the altogether inadequate attention which is given to the teaching of prescribing at so many of our large hospitals and medical schools. I merely refer to this phase of the subject here, as I intend shortly to deal with it in another place and before those who are more closely interested in the preservation of this important branch of a medical man's duties. What a travesty on the art of prescribing it is for a patient to bring to a pharmacist a so-called prescription which merely orders say, No. 4 Mixture (Smith and Jones). Can anything be more degrading than to compel a scientifically trained pharmacist to be the mere medium for the handing over of such a proprietary article? Can anything be more degrading than the spectacle of a duly qualified medical man lowering himself to be the mere exploiter of a puffed and probably over-vaunted preparation? It appears to me that such so-called prescribing is nearly on a par with the dosing that is carried out on those ships which carry a medicine-chest but have no surgeon on board. The bottles of medicine in the chest are duly numbered, and with them is a book describing the symptoms which require a dose of such and such a numbered mixture. Many of you may remember the tale of the ship's steward who went to the captain stating that a sailor had some symptoms which, according to the book, required a dose of No. 9 mixture, but that No. 9 bottle was empty. "That does not matter," said the captain, who in the emergency almost rose to the level of a modern prescriber, "give him equal parts of No. 4 and No. 5."

In connexion with my special department of practice as a physician I am brought in contact with only too many cases of self-drugging by the public, and only too frequently witness the evils arising therefrom. Especially does one see this in connexion with the worship of that absurd fetish, the uric acid diathesis, and the consequent pandering to this modern craze by the unscrupulous vaunters of the many puffed remedies which are warranted to sweep away what is but a natural constituent of the human body. That absurd craze is fostered, if not frequently originated, by the specious advertisements of drugs warranted to cure ills ignorantly, if not falsely, attributed to uric acid. The consequence is that it is now no uncommon sight at a dinner-party to see neurotic young men dropping their lithia tablet into the glass of champagne to counteract what they imagine to be its acidity, lacking as they do both the gastric vigour to deal with the wine and the moral vigour to abstain from it. I venture to sound a note of warning, which I trust may reach beyond these walls to the ear of the public, as to the danger which people incur in dosing themselves with these powerful drugs in tablet form—a danger which is in no sense an imaginary one, since we too often see the pernicious effects resulting from their indiscriminate use, sometimes, alas, when it is too late to remedy the evil results.

And now, gentleman, turning to a more congenial part of my task, let me address a few words of welcome, counsel, and encouragement to those of you who are now entering upon your studies in this school. I address you not only as one who claims and endeavours to be a student still, not only as one who has travelled over the road which you are now about to take, but also as one who from a lengthened experience as a teacher and examiner is well acquainted with the difficulties that you have to overcome, and with the consequent necessity for the courage and application that are required to surmount those difficulties. In the first place, let me heartily congratulate you on your choice of this school, since I am fortunately in a position to testify, from my personal experience, to the high standard of education which is imparted in it, and to the immense benefit in after life which is derived from the course of training here.

[Dr. Luff here discussed methods of study and pointed out the necessity of employing time to the best advantage. He continued:]

But however engrossed you may become in your studies never lose sight of the necessity of carefulness of your health and of the need for daily recreation. The acquisition of knowledge is not the only thing needful. The first requisite to success in life is a healthy body, and the best brain is of little service unless there be sufficient vital energy to work it. Never forget the great value of health as the chief and most important factor in happiness. In primitive times, when muscular power was the chief factor for success in life, the cultivation of the body was the main desideratum, and the cultivation of the mind was almost, if not entirely, neglected. Now the pendulum has swung perhaps too much in the opposite direction, and excessive devotion to mental education has resulted in a corresponding neglect of bodily education. Nothing has pleased me more in watching the development of this school than to witness the establishment of the athletic clubs connected with it, which place the play and recreation of the students on a much more organised footing than they were in my days.

In conclusion, gentlemen, let me beg of you to remember that in joining this school it is your duty to endeavour to maintain its honourable traditions. Each one of you should strive to render himself worthy of the high standard of education that has always been maintained here; each one of you should endeavour to emulate the examples of industry, perseverance, and success that have been set you by so many of your predecessors. When you think of the honourable positions in pharmacy that have been reached by so many past students of this school, when you recall the names of such men as Bentley, Attfield, Carteighe, Hanbury, Hills, Martindale, Allen, Umney, Greenish, and Squire, surely with such examples of successful work and perseverance you should have the strongest stimulus to follow their examples and also, I trust, to achieve their deserved success.

## A CASE OF ACROMEGALY.

By J. PIRIE, M.A., M.D. ABERD.

THE patient, a married woman, aged 43 years, was seen by me in September, 1898, when the following notes were made. She has resided in a village in Warwickshire for the last 25 years. She has borne six children, five boys and one girl. One boy died a few hours after premature birth; the daughter died about four years previously at the age of 17 years after suffering for some months from anorexia nervosa. The surviving children are healthy. There is nothing else of special interest in the family history. The disease first manifested itself in 1886, when menstruation finally ceased. Pains and paræsthesia of the arms and legs were felt and the patient noticed that her hands and feet were getting larger and more awkward. The sight of the left eye began to fail and she suffered much from painful headaches and neuralgic pains in the left eyeball. Her friends perceived at the same time an alteration in her features, which became more uncouth, while a perceptible enlargement of the nose, chin, and ears occurred. Twelve months after the first appearance of the symptoms her last child was born. Sternberg remarks that no woman suffering from amenorrhœa and acromegaly has ever been known to conceive. In this case, however,

there is the distinct history of conception occurring quite three months after the onset of amenorrhœa and other symptoms of acromegaly. The cessation of menstruation is usually one of the earliest manifestations in acromegaly, and Sternberg puts it down as due to the ovaries. Along with the development of physical symptoms a peculiar alteration of the mental condition took place. Attacks of narcolepsy overcame her, she became sluggish and irritable, and she suffered much from the *ennui* of life. Of late years, however, she improved in this respect, and she is now extremely patient and even cheerful. After her confinement she suffered for four years from galactorrhœa.

The patient first came under my notice about five years previously when she presented most of the classical features of the complaint. She suffered much at this time from polydipsia and glycosuria, and for over 12 months there was an almost constant dribbling of saliva from the mouth. There is now a marked abatement in both these symptoms. Such a remission is frequently remarked in acromegaly—e.g., by Valat<sup>1</sup> and by Rolleston.<sup>2</sup> The thyroid was greatly enlarged, but under treatment with thyroid gland substance it diminished much in size. The condition of the skin and nails was also improved by this treatment. Despite the awkwardness of the hands and the clumsiness and increasing feebleness of the legs she was, until 15 months ago, able to get about and to attend to a limited extent to her household duties. She was also capable of a little knitting and needlework. Gradually increased difficulty in walking was noticed and she complained that she could not lift her right leg along. In going upstairs she had to lay hold of the banisters and pull herself up step by step. She could not rise from her chair unless she had something to lay hold of. Breathlessness on the slightest exertion appeared and ultimately the muscle weariness so gained upon her that she had to take entirely to bed.

Her present condition (i.e., in September, 1898) is as follows. With regard to the head and face (Fig. 1) the features are very uncouth and the facial expression is dull and heavy. The nose, lips, tongue, and the external parts of the ear are greatly enlarged. The face is of the usual "type ovoïde" described by Marie. The lower jaw is lengthened and hypertrophied, while the alveolar process projects in front of the upper jaw. The chin is very prominent and so are the zygomas. The head is brachycephalic and very similar to that of the anthropoid apes; the facial angle is small and the hypertrophied lower jaw protrudes in front of the perpendicular of the forehead (prognathism). The circumference of the skull measures only 21 inches. (Cases are, however, recorded in which the skull is found very large. Signorini and Caporiacco mention a case in which it measured 24 inches,<sup>3</sup> and in a case recorded by Schultze it measured as much as 26 inches.<sup>4</sup>) The soft parts are remarkably changed as well as the bones. The scalp is much thickened, as is also the skin of the face. The natural lines of the face are very deep and furrowed. The neck is thick and short and the head is sunk in between the shoulders, due to the spine being curved in the lower cervical and upper dorsal regions (cervico-dorsal kyphosis). The cartilages of the larynx are hypertrophied. The lymphatic glands are enlarged. Large swellings are felt on the site of the parotid and submaxillary glands. Goitre is present. In addition to the kyphosis there is a compensatory lumbar lordosis and also a certain degree of scoliosis. The clavicles are enormously hypertrophied. The ribs are thickened and expanded, the costal cartilages feel bony, and there are nodular projections resembling the "rachitic chaplet" at the junctions of the ribs and their cartilages. The sternum is broad and massive. The ensiform cartilage protrudes markedly and there is the characteristic "double bosse" of the sternum due to the falling away of the whole bone obliquely forwards towards the perpendicular. (Brigidi<sup>5</sup> and Fritsche-Klebs<sup>6</sup> made special note of the "double bosse" of the sternum in acromegaly.) The thorax moves little in respiration, which is chiefly abdominal, its lower diameter is increased, and it is flattened laterally. The spine, acromion, and coracoid process of the scapula are all hypertrophied. The increase in the breadth and thickness of the hands and feet is very marked,

<sup>1</sup> Gazette des Hôpitaux, 1893, p. 1209.

<sup>2</sup> THE LANCET, April 25th, 1896, p. 1137.

<sup>3</sup> La Riforma Medica, vol. ii., 1895, p. 376.

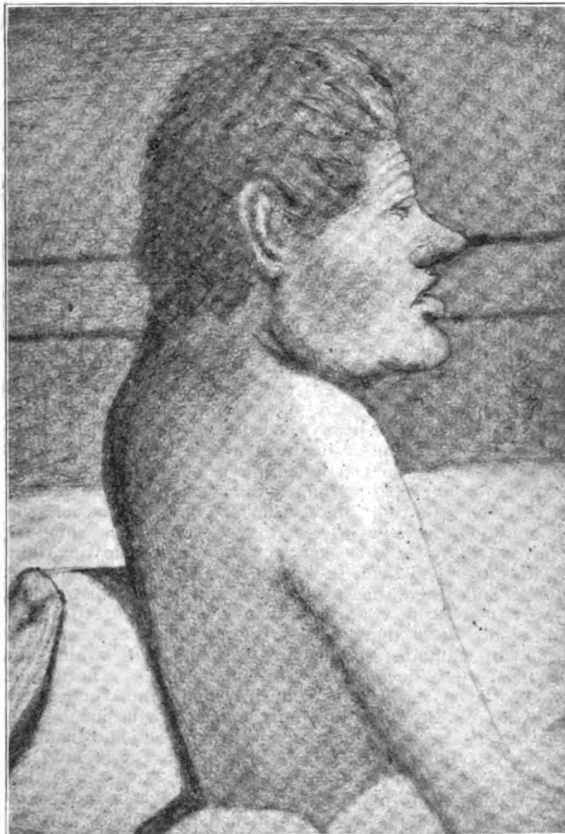
<sup>4</sup> Deutsche Medicinische Wochenschrift, 1889, S. 981, p. 3, line 5.

<sup>5</sup> Società Medico-fisica, Fiorentina, August, 1877.

<sup>6</sup> Klinische und Pathologisch-Anatomische Untersuchungen, Leipzig, 1884.

especially in contrast with the comparatively slender fore-arms and legs. The hands belong to the "type en large" of Marie, there being no increase in the length as occurs in the other type he notes—viz., the "type en long" or "type géant." The fingers are thick, massive, and stumpy, like "little sausages" (P. Marie). The

FIG. 1.



Showing general appearance of the patient.

lines in the palm and about the interphalangeal joints are deeply marked. The nails are broader than they are long and show longitudinal striation. The feet are of gigantic size, with thick coarse toes (Fig. 2). The condyles of the lower end of the humerus are enlarged and thicknesses are to be felt around the head of the humerus. The head of the fibula, the upper extremity of the tibia, the patella, the condyles, and the great trochanter of the femur are all enlarged. The skin is thickened and easily thrown into folds. Its chromatogenous functions are disturbed, much as in rheumatoid arthritis. Small freckles are frequent; patches of a yellowish bronzing occur also on the face, the chest, and the insides of the thighs. (Motais<sup>7</sup> describes a bronzing such as occurs in Addison's disease.) Numerous small warts are present. (Mollusca fibrosa are described in many cases and xanthemalike tumours by Dallemagne.<sup>8</sup>) The patient suffers from a brownish seborrhœa, especially troublesome in the scalp. The hair is thick and coarse and stands straight upwards. There is a scanty beard and moustache. Profuse perspirations are constantly complained of. The heart is dilated. There is tachycarditis, the heart beating about 98 to the minute. A soft systolic basic murmur is heard at times. Palpitations and fainting fits occur very often. Dyspnoea is marked and asthmatic-like attacks occur during which the patient has to sit up in bed and fight for her breath. There are no oedema, no signs of atheroma, no varicose veins, and no hæmorrhoids. A slight

degree of cyanosis is noticed. Retro-sternal dulness can be distinctly made out on percussion. (Erb describes a cup-shaped dulness over the upper part of the sternum, considered by him to be due to enlarged thymus. This is, however, disproved, the dulness being due to the thickening of the manubrium and the ribs.) The patient's speech is drawling and her voice is hoarse and low. The mucous membrane of the palate and all the lymphatic structures of the pharynx and the tonsils are greatly enlarged. The appetite is always large and at times ravenous. Polydipsia has been a prominent symptom, but is not so now. There is great constipation. Attacks of "bilious vomiting" occur, which are accompanied by severe cramp-like pains. The liver and splenic dulness extend far beyond their usual limits. The enlargement of these two organs may be put down to splanchnomegaly, which is an exceedingly rare phenomenon save in acromegaly. The urine is abundant and generally very pale. Occasionally a deposit of calcareous phosphates has been noticed. No albumin or sugar is present now, though sugar has been found in varying amounts during the past five years.

The vagina is capacious; the uterus is diminished in size, as measured by the uterine sound. The clitoris is hypertrophied. Muscular atrophy is a prominent feature, affecting the thenar, hypothenar, and interossei muscles of the hands, the forearm and arm muscles, the calf and thigh muscles, and also the glutei. The scapular muscles are wasted, but otherwise the muscles of the trunk are not affected. The circumference of the forearm at the middle is eight inches, of the arm seven and three-quarter inches, of the calf 10 inches, and of the thigh 15 inches. (Duchessau<sup>9</sup> has

FIG. 2.



Showing enlargement of the feet.

made a special study of the atrophy of muscles in acromegaly. So marked is it in some cases that it has been mistaken for syringomyelia, progressive muscular atrophy, or amyotrophic lateral sclerosis; it has also been mistaken for Charcot's cervicalis pachymeningitis hypertrophica and for erythromelalgia.)

With regard to the organs of special senses, the skin of the eyelids is thickened and puffy. The lacrymal glands are hypertrophied. Increased lacrymation occurs at times and I have noticed a colloid-like secretion between the eyelids.

<sup>7</sup> Progrès Médical, 1891, p. 413.

<sup>8</sup> Archives de Médecine Expérimentale et d'Anatomie Pathologique, vii., 1895, p. 589.

<sup>9</sup> Thèse de Lyon, 1891.

Slight exophthalmos is present and there is a moderate degree of ptosis of the upper eyelid of the left eye. Supra-orbital neuralgia and shooting pains in the left eyelid are complained of. There is amblyopia, nearly complete in the left eye, and colour vision for blues and yellows is defective. Bi-temporal hæmianopsia is present. The pupils contract in accommodation and react to light, though very sluggishly in the case of the left eye. With the ophthalmoscope optic atrophy is found. With the exception of ptosis in the left upper lid there is no paralysis or paresis of the muscles supplied by the oculo-motor nerves. There is no anosmia and no perversion of the sense of taste. Hearing is good but tinnitus aurium is complained of. Sensory disturbances are marked. Shooting pains in combination with paræsthesia, tingling, and numbness are complained of in the arms and legs. Neuralgic pains are felt also in various parts of the body—viz., the face, chest, back, and loins. A remarkable perversion of thermic sensibility is found in the lower limbs and over the front of the abdomen and chest up to about the level of the fourth rib, the patient having no sensation of heat in these regions. Mustard blisters applied over the abdomen or to the lower extremities are not felt at all, even if left on long enough to blister. There is no ataxia and she can accurately tell the position of her limbs. The right patellar reflex seems somewhat diminished. She has never lost control of the urine or fæces. Sternberg remarks particularly on the occurrence of pain and paræsthesia as valuable signs for diagnosis in the early stages of the disease; they are probably due, he considers, to changes in the cutaneous nerves.

As to treatment, I have found antikanmia to give most relief from the pains and headaches. The usual remedies—phenacetin, antipyrin, exalgin, &c.—had no effect. The use of thyroid gland substance gave a certain improvement, but it had to be stopped because of the pain and diarrhoea it produced.

*Note.*—Since the above notes were written the patient died quite suddenly, and unfortunately a post-mortem examination was refused.

Harbury, Leamington Spa.

## MORVAN'S DISEASE (?) OR LEPROSY.

By D. DOUGLAS-CRAWFORD, M.B. EDIN., F.R.C.S. ENG.,  
HONORARY SURGEON TO THE LIVERPOOL STANLEY HOSPITAL.

THE condition known as "Morvan's disease" or "panaritium analgicum" was first described by Morvan of Brittany in 1883. Since that date notes of many cases have appeared in continental journals, but it was not till 10 years later that Pringle of Glasgow reported what was apparently the first case in this country.

The clinical features of the disease are such that Charcot regarded it as a form of syringomyelia, while Morvan has strenuously fought for a recognition of the condition as a distinct disease. Bastian also regards it as a variety of syringomyelia, the onset usually occurring between the ages of 15 and 20 years and rarely as late as the thirtieth year, when a gliomatosis commences in the cord without any assignable cause around a congenitally enlarged central canal. An excellent description of a necropsy is given by Gimball. He found a diffuse sclerosis of the peripheral nerves and posterior columns and horns of the cord in the cervical enlargement; the central canal was distended, and in some sections cavities were found in the position of the posterior horns.

In 1897 Jeanselme<sup>1</sup> showed two cases of this disease, one of which was undoubtedly associated with leprosy, and in the other there was possibly a leprosy infection. In the same year Zambaco Pasha, at the Leprosy Congress held in Berlin, gave it as his opinion that Morvan's disease was simply leprosy modified by climate, hygiene, and environment—in short, an attenuated form. He was supported in this view by Falcão of Lisbon, García de Coli of Columbia, and others. Zambaco considered that the absence of the bacillus lepræ did not exclude leprosy, for such a diagnosis was of necessity first based upon clinical signs. Jeanselme having recognised the possibility of both diseases existing together, and of one condition being mistaken for

the other, compared the two cases above described with a number of cases of Morvan's disease collected in Brittany, and from the comparison concluded that there were certain clinical signs which distinguished one disease from the other. He pointed out that in the Morvan type of syringomyelia whitlows are often limited to the hands, while in leprosy they attack both fingers and toes; anæsthetic areas are characteristic and facial paralysis is rare and of central origin in Morvan's disease, whereas in leprosy the anæsthesia affects both the upper and the lower limbs, and the face and trunk partially, and facial paralysis is frequent and peripheral in origin; again, in Morvan's disease the ulnar nerves are normal and never nodose, the reflexes are exaggerated, and scoliosis is often present, while in leprosy the ulnar nerves are nodose, the reflexes are normal or absent, and there is no scoliosis.

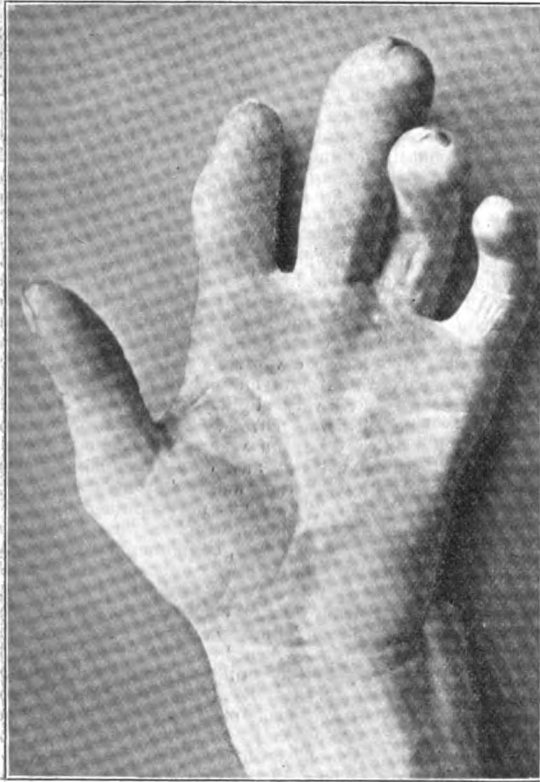
A man, aged 27 years, was placed under my care at the Liverpool Stanley Hospital by Mr. J. W. Hudson of Millom on May 8th, 1900. Five years before he had worked in a lime-quarry, but owing to the appearance of fissures in both palms, which he said penetrated to the bone and which he attributed to the lime, he changed his occupation and became a railway labourer for the next six months. The fissures, however, still persisted, so he returned to the quarry and worked there intermittently until Nov. 6th, 1899. Two years before whitlows began to form on the fingers of both hands but occasioned no pain. A whitlow started as a small pimple on the pulp of the terminal phalanx; it became very painful, although the digit was numb and cold. As the whitlow formed the pain subsided, and subsequently a piece of bone came away and the wound healed. The whitlows appeared in a definite order, first on the right index; secondly, on the left index; thirdly, on the left ring finger (the right ring finger still remaining unaffected); fourthly, on the right middle finger; and fifthly, on the left middle finger. The swelling of the right shoulder occurred two or three weeks after the whitlow on the right middle finger had healed; the whole arm suddenly became swollen, and when the swelling subsided the joint was left in very much the condition that it was found to be on admission. Four years before the patient had been first seized with what he described as "sweating spells" which had become more frequent since November, 1899. The attack lasted for about half an hour, during which time the patient sweated profusely and was only partially conscious. The sweating ceased as suddenly as it commenced and then the patient felt quite well. The family history presented no unusual feature and the patient enjoyed excellent health until the onset of this disease. He had always resided in this country; there was no evidence of syphilis and no history of an injury. The patient had married about 14 months before.

On admission the patient's right shoulder-joint was found to be greatly enlarged and fluctuating. There were signs of old incisions on the outer side; the joint had been opened five times, each time with great relief to the patient, but it rapidly refilled. The head of the humerus projected under the coracoid, movement of the joint was limited, the bones grating upon each other, and the origin of the long head of the biceps had been destroyed. The digits of both hands showed signs of mutilation, but the thumbs, the little fingers, and the right ring finger had not suffered. As regarded the nervous system, speech was slightly indistinct and slurred, but the taste was unimpaired. The patient could protrude his tongue, but could not move it laterally. The pupils reacted to light and accommodation, there was no limitation of the field of vision, and no nystagmus. There was right external strabismus of many years' standing. If the patient closed his eyes while standing up he toppled over. The muscles of the left thumb were slightly wasted. Sensation to pain, heat, and cold was greatly impaired over the skin of those digits which were supplied by the median nerve. The other skin areas were fairly normal. Tactile sensation was normal throughout both limbs; the muscular sense was unimpaired, but a tremor of the limbs was noticeable on attempts being made to use them. The knee-jerks were exaggerated, the plantar reflex was present, and ankle clonus was well marked. The gait was slightly spastic. Sensation to pain, heat, and cold was impaired over the outer sides of the upper thirds of both thighs and also over the dorsal surfaces of the feet. Sensation in the cervical region was normal except over the area supplied by the right small occipital nerve.

Ten days after admission the left middle finger became

<sup>1</sup> Société Médicale des Hôpitaux de Paris, July 30th, 1897.

greatly swollen. It was incised (the incision being absolutely painless) and a little weak pus escaped; the wound healed readily. On May 26th the right shoulder-joint was incised and discharged a pale watery fluid—this continued to flow for three weeks, when the wound healed; the patient left the hospital on June 23rd. While in the hospital he suffered from one of the "sweating" attacks. He felt unwell in the forenoon of June 17th and he was sent to bed; his temperature rose to 103° F., but



Left hand of patient, showing mutilation of fingers.

dropped again to normal in a couple of hours; during that time he sweated profusely and appeared to be dazed and stupid. A year later (in July, 1901) the disease showed no signs of advance; the patient only interrupted his work when the shoulder-joint became so distended as to need aspirating, and even then it was only for a few days.

Previously to the Berlin Leprosy Congress of 1897 this case would certainly have been classified as one of Morvan's disease; in that year Zambaco and others refused to recognise Morvan's disease as any other than leprosy modified by environment and other circumstances. Jeanselme, however, considers that they are two distinct diseases,<sup>2</sup> and my case would very clearly answer to the definite distinguishing signs of Morvan's disease which he has laid down; in it the nerves were not nodose, the reflexes were exaggerated, whitlows were limited to the fingers, and the hydrarthrosis of the shoulder was suggestive of the disease. There was, however, no scoliosis. The case is interesting, but whether a distinction is to be drawn between leprosy and Morvan's disease or not can only be decided when the pathology of leprosy is more thoroughly worked out than at present.

*Bibliography.*—British Journal of Dermatology, 1893, p. 193; 1897, p. 454; and 1898, p. 70. Twentieth Century Practice of Medicine, vol. xi., p. 777. Virchow's Archiv, Band cl., p. 304. Quain's Dictionary of Medicine, vol. ii., p. 849. Gazette Hebdomadaire, 1889, p. 308. Liverpool.

<sup>2</sup> Vide supra.

## AN INTERESTING CASE OF COMPRESSION.

By EUGENE J. O'MEARA, L.S.A.,  
CAPTAIN, I.M.S.; OFFICIATING MEDICAL OFFICER, 11TH P.W.O.  
BENGAL LANCERS.

A SOWAR of the 11th Bengal Lancers, aged 26 years, was admitted into the Regimental Hospital at Meean Meer on the morning of March 27th, 1901, with the following history. On the previous afternoon about three o'clock he had fought with another man at the canal bridge and had received several blows from a rather heavy stick about the body and the head. After the fight, however, he went on a distance of two miles to some fields, where he remained cutting *khesil* for about four hours, returning to the bridge in the evening about 7.30, when he got off his mule, as stated by the other men, to micturate, but feeling a pain in the head he sat down on the canal bank and from that moment apparently remembered nothing further. The other men, thinking that he was following, went on and left him. Next morning he was found by a search party lying exactly in the same place in a state of stupor, but able to name the man in charge of the party and also to give his own name.

On admission into the hospital about 10 A.M. his condition had improved, for he was able to make a very fairly clear statement about the fight before the adjutant and myself. But after 1 P.M. the patient became rapidly worse and at 4 P.M. the condition was as follows. The pulse was slow, regular, and heaving, the pupils were widely dilated and did not react to light, and there was retention of urine. The condition of the muscles on the two sides was practically the same, paresis perhaps being more marked on the left side. There was practically no difference in the surface temperature of the two sides. The patient was quite comatose. On careful examination of the head no evidence of a depressed fracture could be discovered, the only external sign of injury on the head being a very slight redness over the left temple. Subcranial hæmorrhage was diagnosed and I at once proceeded to operate.

Very little chloroform was given and that more for appearance's sake before natives than on account of necessity, as the patient was quite comatose. The usual horseshoe-shaped flap was turned down and the trephine was applied over the anterior branch of the right middle meningeal artery. On removing the bone a large amount of very dark clot protruded through the trephine hole, but the artery was quite uninjured. The trephine was now applied over the posterior branch of the middle meningeal artery, as the hæmorrhage was very profuse and appeared to be coming up from the direction of this branch, but the bone having been removed the artery was again found to be intact. The hæmorrhage was now excessive and was dark venous in character, the patient's condition being very critical. Having rapidly enlarged the posterior trephine hole and passed my finger backwards into the occipital region it was at once evident that the whole of the posterior part of the brain was very much compressed by an enormous clot. Five and a half ounces of clot were quickly removed with the spoon, the brain expanding as the clot was turned out. At the same time long strips of gauze were rapidly passed into the cranium between the bone and the dura mater, the ends being brought outside, the objects being as follows—(1) to act as a drain for the hæmorrhage and (2) to minimise as far as possible the danger of spreading œdema from a too sudden expansion of such a compressed brain. The trephine discs were replaced as accurately as the gauze drains would allow and the flap was partly sutured round its anterior part, but the posterior portion, together with the subsequent incisions, were left entirely open for the gauze drainage. A very large dressing having been applied the patient was kept lying absolutely still on his right side to facilitate the blood drainage. The pulse improved immediately and at 10.30 P.M. the patient was conscious and able to speak one or two words.

During the first 36 hours after the operation hæmorrhage continued and soaked through the dressings four times, but after this time it appeared to stop suddenly and there was none at the end of 48 hours. On April 1st I removed very gradually and with great care the gauze drains from inside the cranium; there was no sign of any further hæmorrhage. The posterior edges of the horseshoe flap and

the other incisions were now drawn together with wire sutures. On the 5th the temperature had never been above normal since the operation. There was no pain, headache, or sleeplessness. On this date I handed over the case to the charge of Captain W. H. Ogilvie, I.M.S., as I was ordered home on sick leave.

The following is an abstract of Captain Ogilvie's subsequent notes. On April 10th the anterior part of the flap had healed and the posterior part was healing. The patient's condition was excellent. The temperature was normal. On the 15th all the stitches were removed. The general condition was the same. On the 30th the posterior edges of the flap had healed with the exception of a sinus. On May 6th, on probing the above-mentioned sinus dead bone was discovered. The sinus having been opened up it was found necessary to remove the posterior trephine button. On the 17th the wound had nearly healed, but a small sinus remained leading down to bare bone. On again opening up the sinus the upper margin of the posterior trephine hole was found to be rough, but there was no actual necrosis and no bone was removed. On the 23rd this wound had almost entirely healed, when the soft parts sinking somewhat into the trephine hole caused it to drag open again. On the 31st the wound had very nearly healed again: there was no sinus or discharge. On June 2nd the case was handed over to Lieutenant McCarrison, I.M.S. On the 4th the wound had quite healed and the patient was recommended for two months' sick leave to recover his strength before returning to duty. On the 12th the patient was discharged from hospital as recovery was complete. There was no evidence of any cortical irritation and the motor system, the special senses, and the mental condition were unimpaired.

I have recorded the above case as there are many interesting points, especially as regards the history and the extraordinary length of time before definite symptoms of compression appeared and the absence of any very definite symptoms to enable the seat of injury to be localised. Also I have not been able to trace any other case in which plugs have been successfully used in the extra-dural space with the objects of: (1) acting as drains for the excessive hæmorrhage, it being impossible to localise or to reach the bleeding point (and I think there is undoubted evidence in this case at least to show that they acted admirably); and (2) to exert some pressure on the expanding brain. In this case the compression was so great, and extended over such a large area of the brain surface, that *a priori* it is very doubtful whether without some means of this kind the patient would have escaped the danger of spreading œdema. What the value of the treatment may be I leave to others more competent to judge. It was a sudden idea which occurred to me as a last resource to save the patient's life, and I feel confident that without the plugs I should never have succeeded in bringing the case to a successful issue.

### A CASE OF SUDDEN DEATH EIGHT DAYS AFTER AMPUTATION OF THE FOREARM.

By P. N. GERRARD, M.D., B.Ch. Dub.,  
DISTRICT SURGEON, VLU SELANGOR, FEDERATED MALAY STATES.

A CHINESE coolie, aged 36 years, was admitted into the District Hospital, Kwalu Kubu, on August 14th, 1899, suffering from disorganisation of the right hand which was the result of an accident in blasting with dynamite. The man, who had travelled through from Raub Pahang, about 50 miles, in a bullock-cart, arrived in hospital four days after his accident. The wounds were septic on admission, and he had a temperature of 100.8° F. He was a moderately well-developed man and an opium-smoker. On examining the remains of his hand all the bones of the metacarpus were protruding and blackened, the thumb and little finger only remaining attached to the arm, the wrist-joint was inflamed and swollen, the lymphatic glands were enlarged, and a lymphatic cord could be traced from the elbow to one or two enlarged glands in the axilla. In consideration of the inflamed wrist-joint and the man's general condition I deemed it advisable to operate fairly high up, and so performed a modified circular amputation, dividing the bones at the middle of the forearm. The operation was completely

successful and was uneventful, the patient recovering well from the chloroform. His temperature, which was 102.6° on the table, began to fall nicely after the evening of removal of the mangled part. A slight amount of pus formed beneath the flaps, owing, I presume, to the infected lymphatics, and the wound was syringed out twice daily. Granulation proceeded; the tube had to be shortened about every second day. The patient began to feed well and to move about the ward on the fifth day (without permission). The temperature gave every promise of an exceedingly good result, when on the evening of the thirteenth day (eight days after the operation) I received an urgent note from the dresser on duty to say that the patient had got "a fit" and was very bad. I was in the hospital within five minutes of the receipt of the note, only to find the patient dead. The history of his attack was as follows. The patient had been lively and in good spirits all day. At 6.25 P.M. the dresser placed the thermometer under his arm as he sat up in bed, and just as the thermometer was removed, registering 99°, he fell back gasping for about five minutes and died just before my arrival at 6.40. The patient was given whisky, but so rapid was the seizure that there was no time for the exhibition of other remedies.

**Necropsy.**—A post-mortem examination was made 12 hours after death. Superficially nothing worthy of note was seen. On examining the lungs the lower lobe of the left lung was found to be deeply congested. The heart was normal in size and shape and the left side contained a small amount of fluid blood; the right auricle contained a long thin ante-mortem clot which extended into the ventricle: the clot was about four inches long by a quarter of an inch at its broadest part. The tricuspid valve was very slightly thickened, also the mitral valve. The aorta was normal. The heart and lungs were removed *en masse* and the vessels were traced out to their smallest calibre without any clot or embolus being found. No other post-mortem manifestations worthy of comment were found. The brain was not examined.

The cause of death in this case, which at first sight was diagnosed, and, I think, with reason, as pulmonary embolism, is peculiar from the fact that notwithstanding very careful search no clot or embolus was found in any part of the lungs. The fact that the patient did not complain of any palpitation or distress until a few minutes before dissolution, when he remarked before falling back in his bed that his "breathing was difficult," considered in connexion with the finding of a clot (small in diameter) partly in the right auricle and extending into the ventricle, leads me to the conclusion that the immediate cause of death was cardiac syncope consequent on the disturbance of an ante-mortem clot which had formed in the right auricle, as a result of septicæmia from which at the date of his death he had recovered—or, in other words, he died from cardiac thrombosis. It furthermore raises the question as to the advisability of exhibiting alcohol fairly freely in all cases where operations cannot be done promptly, and where septic absorption is probable, in order that no slowing of the circulation and consequently no deposition of fibrin may take place in the right auricle. This case is of interest, I think, from the similarity of the symptoms to pulmonary thrombosis or embolism.

Vlu Selangor.

**DEATH OF A CENTENARIAN.**—The Algiers correspondent of the *Petit Journal* states that an Arab woman named Aicha Khellafia-bent-Mohamed died at Blida on Sept. 24th, at the age of 110 years. From an examination of various documents, including title-deeds of property, it appeared that she was born in the year 1791. Her mind was quite clear and she used to relate anecdotes of the earthquake of 1825 by which Blida was overwhelmed. She said that she was already a grandmother when the French took possession of Algeria and occupied Blida.

**WIGAN MEDICAL SOCIETY.**—A meeting of this society was held on Sept. 26th, Mr. William Latham (the President) being in the chair.—It was resolved to vote a sum of money for the publication of a catalogue of the medical works in the reference department of the Wigan Free Library, each member to receive a copy.—Dr. Arthur J. Wallace, assistant lecturer on midwifery and gynaecology in University College, Liverpool, read a paper on Some Lesser Gynaecological Ailments.—An interesting discussion followed in which the following members took part: the President, Mr. T. M. Angior, Dr. J. Blair, Dr. F. Rees, Mr. M. G. McElligott, Dr. R. P. White, and Mr. C. M. Brady.—Dr. Wallace replied.

# PHYSIOLOGICAL PHENOMENA PRECEDING OR ACCOMPANYING MENSTRUATION, TOGETHER WITH NOTES ON THE NORMAL TEMPERATURE OF WOMEN.

By HELEN MACMURCHY, M.D.,

RESIDENT MEDICAL ASSISTANT, TORONTO GENERAL HOSPITAL.

There is no physiological condition so nearly resembling disease as that which produces every month in an adult woman a change so profound that it has been looked upon as the expression of a morbid condition.—GUERIN.

THE true significance of menstruation still remains among the unsolved problems of medicine, and was mentioned among the most pressing of these problems by Dr. Milne Murray in a recent presidential address before the Obstetrical Society of Edinburgh. We must look primarily to physiology for a solution of this problem and it is encouraging that some progress has been made in this direction in the last year of the nineteenth century, when it was proved that so far as metabolism is concerned vicarious action exists between the ovary and the thymus gland. Many of the physiological phenomena of menstruation have been observed from the dawn of medical science, but it is probable that some still remain unrecognised and undescribed. Women in the possession of perfect health need to pay little attention to the advent of that menstrual epoch on or about the twenty-eighth day which makes itself such a dreaded event to others. It is a remarkable fact that phenomena appear regularly for many years and yet pass unnoticed because they are supposed to occur in everyone and are therefore considered of no importance. Besides, few persons are born observers and what the profession have not seen the laity are not always able to bring to their notice. Among known phenomena are: neuralgia (King); disinclination for society (Dalton); weariness and pain in the back and in the limbs (McKendrick); general malaise and irritability of temper (Pozzi and others); headache, nausea, and leucorrhœa following menstruation (Garrett); increase of pigmentation, the complexion dull or sallow, and black rings round the eyes (Barnes); diminution of the production of urea more than 20 per cent during menstruation, slower pulse, and a fall of at least 1 per cent. in temperature (Rabuteau); the discharge anterior to the flow of a quantity of vaginal mucus, brown and rusty in colour and probably of a peculiar odour (Flint); tension in the region of the uterus and ovaries, which are sensitive to pressure, alternate feeling of heat and cold, slight increase in temperature of the skin, retardation in the process of digestion, and variation in the secretion of sweat (Landois and Stirling); and vertigo, herpes, parotitis, pruritus vulvæ, flashes of heat, swelling of the thyroid gland, increased frequency of urination, painful swelling of the mammae, changes in individual character, angina of menstruation, and a form of subacute tonsillitis (Cushing and Cumston in the Twentieth Century Medicine). Longuet also gives one instance of periodical enlargement of the thyroid gland during menstruation. Barnes's well-known cases of hernia of the left ovary, in which the sphygmograph applied to the herniated ovary showed a high blood-pressure preceding menstruation, has been frequently referred to, and there is also an interesting case reported in the Transactions of the Edinburgh Obstetrical Society, February, 1893, which bears on the same point. Dr. Young there gives notes of the case of a patient, otherwise healthy, aged 29 years, who at the menstrual period suffered from a headache so severe that she could not lift up her head and was unfitted for duty for several days. The sphygmograph record showed a high blood-pressure. Dr. Young then removed during menstruation 10 ounces of blood by venesection and this gave instant relief. The operation was again performed shortly before another menstrual period and several months thereafter the patient reported herself as being as well as could be desired. M. Cautier before the Académie de Médecine at Paris in 1900 also mentioned that the approach of menstruation may be recognised by changes in the hair. Flint<sup>1</sup> refers at length in the following passage to the evolution of carbonic acid in the female:—

*Exhalation of CO<sub>2</sub>.—Influence of Sex.*—All observers have found a marked difference between the sexes, in favour of the male, in the proportion of CO<sub>2</sub> exhaled. Andral and Cavarret noted an absolute

difference of about 45 cubic inches per hour, but did not take into consideration the differences in the weight of the body. Scharling, taking the proportion exhaled to the weight of the body noted a marked difference in favour of the male. The difference in the degree of muscular activity in the sexes is sufficient to account for the greater evolution of CO<sub>2</sub> in the male, for this principle is exhaled in proportion to the muscular development of the individual, but there is an important difference connected with the variations with age which depend upon the condition of the generative system of the female. The absolute increase in the evolution of CO<sub>2</sub> with age in the female is arrested at the time of puberty and remains stationary during the entire menstrual period, provided the menstrual flow occur with regularity. During this time the average exhalation per hour is 714 cubic inches. After the cessation of the menses the quantity gradually increases, until at the age of 60 it amounts to 960 cubic inches per hour. From the age of 60 to 82 the quantity diminishes to 793 cubic inches, and finally to 670 cubic inches. When the menses are suppressed there is an increase in the exhalation of CO<sub>2</sub> which continues until the flow becomes re-established. In a case of pregnancy observed by Scharling the exhalation was increased to about 885 cubic inches.

Quantity of CO<sub>2</sub> Exhaled by the Male.

Age.	Cubic inches per hour.	Age.	Cubic inches per hour.
12-16 years ... ..	915	32-60 years ... ..	1220
17-19 " ... ..	1220	63-82 " ... ..	933
25-32 " ... ..	1343	102 " ... ..	671

Dr. Engelmann of Boston, in a recent article entitled "What is Normal Menstruation?"<sup>2</sup> gives statistics concerning 5000 women most of whom were in school or college or employed in departmental stores and about the age of from 18 to 22 years. Dr. Engelmann found that in 24 per cent. of these menstruation occurs at intervals of less than 28 days, in 31 per cent. at intervals of 28 days, and in 45 per cent. at intervals of more than 28 days. From 66 to 70 per cent. suffer more or less pain during menstruation; this number varies with age and intensity of occupation. Dr. Jacobi finds about 65 per cent. suffer more or less and De Boismont (quoted by Dr. Jacobi) finds that 77 per cent. have more or less pain. Pain, however, can hardly be considered physiological and is therefore not included in the present inquiry. There are also variations described in pulse-rate, production of urea, and temperature, which are referred to later under the head of "Temperature." With the exception of parotitis, swelling of the thyroid gland, and the excretion of CO<sub>2</sub> the phenomena mentioned and a few others to be presently described have been investigated in 100 cases, the results of which are submitted herewith.

In regard to the production of urea a few experiments made under the direction of the assistant in chemistry at the chemical laboratory of the University of Toronto confirm the results referred to hereafter, as do also a few observations on pulse-rate and blood-pressure. The phenomena of which no description is given in literature to which the writer has had access are: loss of sleep; a tendency to pessimism and mental depression; disturbances of the special senses; cutaneous hyperæsthesia; a tendency to constipation or diarrhœa; a great tendency to "take cold," as shown by frequent attacks of coryza, occurring in some women at every menstrual epoch; a feeling that any work in hand must be all "finished up" (a feeling as if you could not do enough); and letting things fall or "slip through the fingers" in some unaccountable manner.

On Nov. 29th, 1900, 150 temperature charts, and 150 copies of the following list of questions, each accompanied by a letter of explanation, were sent to the nurses and graduates of Toronto General Hospital Training School for Nurses by the kind permission of the superintendent. Twenty-two of the answer papers were returned filled up. At the end of March, 1901, 150 additional copies of the questions were sent to the nurses of St. Michael's Hospital (by kind permission) to the students of the Women's Medical College and other colleges, and to several women physicians in practice in Toronto, as well as to a number of women teaching in the Toronto Public Schools. Sixty-eight replies were returned, and the additional papers required to make up 100 were then easily secured, most of the replies being dictated. All those answering the questions were well enough to do a hard day's work, and almost all of them were less than 30 years of age, few or none being married. The questions were as follows:—

Besides the well-known phenomena of menstruation, such as hæmorrhage, slight mammary changes, weariness and lassitude, sensations of pressure and pain in the pelvis, &c., are any of the following symptoms

<sup>1</sup> Human Physiology, pp. 147 and 148.

<sup>2</sup> New York Medical Journal.

present, say, from the twenty-first to the twenty-eighth days?—  
 1. Disturbed sleep. For example: Are you more wakeful than usual?  
 2. Vertigo. 3. Headache. 4. Neuralgia. 5. Mental depression. Is there any change in your feelings? Do you prefer being alone?  
 6. Increased nervous energy, feeling you must "finish up" everything.  
 7. Lessened nervous or muscular power. Do you let fall things you are holding or carrying? 8. Cutaneous hyperæsthesia, feeling as if clothes irritated the skin. 9. Vaso-motor disturbances, flashes of heat and cold. 10. Digestive disturbances—flatulence, &c. 11. Constipation. 12. Diarrhœa. 13. An increased quantity of urine. 14. Cutaneous eruptions. If so, where (lips, face, chest, &c.)? Of what character (vesicles, pustules, acne, herpes)? 15. Disturbances of the special senses. Is the sense of smell more acute? Are you eyes more easily tired? 16. Subacute tonsillitis. Any tendency to sore-throat? 17. Do you take cold more easily? 18. Differences in pigmentation. Is the complexion dull or sallow? Are there rings round the eyes? 19. Are there changes in the hair? Is it dull, harsh, wiry, or less glossy? 20. Is there an irritating watery discharge before the discharge of blood? 21. Is there an irritating watery discharge after the discharge of blood?

Please qualify your answer, if affirmative, by the words "occasionally," "frequently," "generally," "always." If any of the above symptoms occur at any other time than from the twenty-first to the twenty-eighth days please mention the time. Are there any other phenomena which you can suggest for observation?

#### Summary of Answers.

Question.	No answer.	"No."	"Yes."	"Occasionally."	"Generally."	"Frequently."	"Always."
1	0	47	53	13	1	8	8
2	8	58	34	18	0	4	1
3	4	41	55	19	5	7	7
4	5	73	22	5	5	1	3
5	5	38	57	11	3	6	12
6	7	49	44	4	0	3	9
7	7	57	36	6	4	6	6
8	11	61	28	9	2	2	6
9	9	49	42	18	0	4	5
10	6	39	55	13	2	11	6
11	5	54	41	10	8	2	6
12	9	48	43	21	2	3	3
13	13	39	48	5	6	5	5
14	9	50	41	13	3	5	1
15	6	34	60	4	3	8	11
16	6	76	18	7	3	0	1
17	9	44	47	1	1	4	9
18	4	21	75	8	5	6	14
19	27	59	14	1	1	2	2
20	11	50	39	6	3	2	8
21	7	55	38	7	22	0	11

**Notes on individual replies to the questions in numerical order.**—1. One hardly sleeps at all the first night of menstruation. Three sleep more heavily than at other times. Two specially mention dreams at this time. 4. One reports sciatica. 5. Six specially mention irritability, one writing as follows: "I find that I am more easily provoked by small annoyances. Loss of patience is the chief difference." 6. One reports that the "feeling as if you couldn't do enough" comes after menstruation is over. 7. This condition (lessened nervous or muscular power) is very marked in some cases. One mentions that great domestic inconvenience is caused by many dishes being thus broken by one who shows this phenomenon markedly. 10. Apparently some articles of diet, especially fish, cannot be easily digested at this time. 13. One reports the quantity of urine as being diminished. 14. A large number report eruptions on the face, lips, and chest, especially on the face. Probably those on the chest and shoulders often escape observation—they frequently resemble petechiæ. Two report "red spots seldom coming to a head." One reports roughness of the skin in small spots on the face and another describes what is probably the same phenomenon as "shell-corn" on the face. (Dr. Goodman speaks of red splotches on the chest and of swollen and tender varicose veins at the knee. Bergh of Copenhagen has seen, from 1866 to 1887, 887 cases of vulvar herpes. Many said it occurred at every menstruation. It was not dependent on syphilis. In most of these cases it must be considered a menstrual exanthema, probably

depending on troubles of innervation.) 15. A large number speak emphatically about the eyes being very tired—"Cannot read at night." A number also report hyperosmia. 17. One reports coryza always present with menstruation. Another reports coryza nearly always present. 19. The change most frequently mentioned is the loss of the natural glossy appearance. One reports that the hair "looks dead."

It would be interesting to know whether the hair normally excretes toxic products at this time as it normally excretes arsenic. It was shown by Professor Brouardel in 1891 that arsenic is eliminated through the skin, hair, and nails, and is probably stored up there. Dr. J. Reid of Redhill recently stated<sup>3</sup> that in the case of patients taking small doses of arsenic, if the medulla of the hair after being treated by ammonia copper solution be viewed by a one-sixth of an inch objective, particles of arsenite of copper may be seen as small green granules. This matter of the excretion of arsenic by the hair has recently been discussed by Mr. Edmund Knecht, Ph.D., and Mr. W. F. Dearden, in connexion with the Manchester epidemic of arsenic poisoning by beer, and M. Gautier of Paris has shown that it is a normal function of the hair to eliminate arsenic from the system. In connexion with the elimination of arsenic at menstruation it must be mentioned that M. Gautier and M. Donser<sup>4</sup> have shown that menstrual blood contains four times as much iodine as normal blood, and that the total amount of arsenic eliminated in the menstrual blood at each menstruation is 0.14 milligramme, and this is equal to the entire quantity of arsenic normally contained in the thyroid gland. Iodine is also furnished by the thyroid gland.

Several interesting phenomena are suggested for observation by the replies received. In one pre-menstrual hunger is mentioned. Six report feeling cold, with shivering and chills, at the onset of menstruation, while swollen feet, stiffness of joints, and the assumption of a coarser appearance and texture by the skin are respectively mentioned by three correspondents. In one reply a hæmorrhage which occurs regularly within the external ear (concha) is reported. The first hæmorrhage is small and the blood soon coagulates, but if the coagulum be removed the hæmorrhage continues for some time, and though small is somewhat difficult to stop. This and the petechiæ upon the chest and shoulders are evidently connected. (Increased permeability of capillary walls?) Another correspondent reports a spot of hyperæsthesia over the right ear. This is interesting in connexion with the work of Dr. Fleiss of Berlin, who in 1897<sup>5</sup> stated that there were certain "nasal genital spots" which became swollen at the time of menstruation and which on being touched at this period (in rare cases at intermenstrual periods also) gave rise to pain. Touching the anterior end of the inferior turbinated bone gave rise to pain in the hypogastrio region, and touching the tuberculum septi gave rise to pain in the sacral region. Cocainisation of these spots relieves the pain of that type of dysmenorrhœa which does not cease with the flow of blood, and cauterising these spots completely will effect a cure of the same type of dysmenorrhœa. Dr. Fleiss's results have been completely confirmed during the last three years by Dr. Schiff of Vienna and other observers. It would seem that the mucous membranes are specially affected in menstruation. Thus the throat is frequently affected; the nasal mucous membrane is congested and swollen, and Goodman quotes two cases of hæmorrhage from the throat and upper part of the œsophagus. A similar case occurred in practice in Toronto recently.

Another interesting topic is the action and reaction of menstruation on disease and disease on menstruation—that is, the action of a physiological function on a pathological condition and *vice versa*. Typhoid fever precipitates menstruation, generally bringing it on within a few days after the onset of the fever. Other examples are as follows. Acne.—"Not infrequently patients give a history of their faces being worse at the menstrual period" (Dr. P. Abraham, surgeon to the Hospital for Diseases of the Skin, Blackfriars, and dermatologist to the West London Hospital<sup>6</sup>). Gonorrhœa.—"Examine suspected cases in female patients near the menstrual period, because a case in which the gonococcus is usually difficult to find will at this time show it in

<sup>3</sup> THE LANCET, March 23rd, 1901, p. 878.

<sup>4</sup> Académie de Médecine, 1900.

<sup>5</sup> The Relation of the Mucous Membrane of the Nose to the Sexual Organs in Females.

<sup>6</sup> THE LANCET, Sept. 22nd, 1900, p. 860.

great profusion" (Dr. W. H. Burrage).<sup>7</sup> Uterine myomata.—"About 10 to 14 days before menstruation a uterine myoma may frequently be found to increase in size, and a corresponding decrease occurs immediately after menstruation" (Dr. Thienhaus<sup>8</sup>). Tuberculosis.—"Not rarely it is possible in suspected persons in whom an examination previously had been negative to demonstrate positive signs during the menstrual period. In other patients the symptoms in the beginning of menstruation are not modified, but towards the end show a marked improvement" (Neumann). Effusion into the knee-joint.—Sir W. H. Bennett<sup>9</sup> reports 20 cases of a quiet, passive effusion into the knee-joint occurring in women and young girls which is always associated with menstrual irregularity or uterine trouble. In no case did recovery occur while the uterine or catamenial irregularities continued, but in every case their correction was followed by prompt improvement in the condition of the knee.

#### Temperature.

It is long since the question of variations of temperature more or less connected with the onset of menstruation first attracted attention. Longuet was of opinion that women have habitually a higher temperature than men. And though these variations are slight they are not always unimportant. Thus the accompanying observations show that in persons enjoying the most robust health a temperature of from 99° to 99.6° F. is not uncommon from 2 to 8 P.M. three or four days before menstruation, and in 13 out of 17 charts the afternoon temperature frequently reached 99° F. Yet a temperature of 99° F. is often looked on with suspicion. "Charts were here exhibited showing that in some cases a pre-menstrual rise of temperature might indicate early phthisis" (address delivered by Professor Clifford Allbutt before the British Medical Association at Portsmouth August, 1899<sup>10</sup>). "A rise of temperature to about 99° F. between 2 and 6 P.M. is one of the three earliest symptoms of tuberculosis" (address delivered by Dr. G. A. Heron before the Section of Sanitary Science and Preventive Medicine at the Congress at Southampton<sup>11</sup>). "Dr. Kingston Fowler has shown that the only form of pyrexia which can be absolutely said to be tuberculous is that in which the morning temperature is higher than that of the evening."<sup>12</sup>

In seeking information about normal temperature one turns to the classical work of Jürgensen<sup>13</sup> undertaken in 1866 and 1867. The measurements of temperature were taken from three healthy men, aged 24, 41, and 42 years respectively. Variations of 0.8° C. and even of 1.4° C. were found between the readings of the temperature of the same individual at different hours. Jürgensen was able to establish not only the average normal temperature of men in health, but also to show that even when there are "extreme conditions of life" the average temperature remains the same, if a long enough range be taken. Thus fasting and cold bathing, though they temporarily lower the body temperature, do not in the long run affect the average. Exercise too, often raises the body temperature, but not always, as Dr. W. Hale White has shown in the Croonian Lectures for 1897 on "The Means by which the Temperature of the Body is Maintained in Health and Disease." This fact was also noticed in some of the charts now dealt with. Another investigator who pursued the same subject was Georg Hormann.<sup>14</sup> Hormann finds the maximum temperature between 5 and 7 P.M. and the minimum between 5 and 6 A.M. His results are as follows: 1. Usual way of life, nourishment and exercise, 38.1° to 36.0° C. 2. Usual way of life, no food or drink for 36 hours, exercise, 36.5° to 36.0° C. 3. Usual way of life, hard work, nourishment, 38.1° to 36.3° C. 4. Usual way of life, nourishment, rest, 37.5° to 36.2° C. 5. Rest, nourishment withdrawn, 36.4° to 37.3° C. 6. Rest, nourishment withdrawn, constant outer temperature, 37.7° to 35.9° C. Sometimes the maximum temperature occurs at 2 or 3 P.M. and sometimes the temperature is low at 6 P.M. Something must depend on the dinner-hour and upon mental exertion, which sometimes, especially in warm countries,

produces a rise of temperature of from half a degree to one degree Fahrenheit (Fothergill and Murrell). There are also interesting records of race-variations of temperature. One of the most interesting of these occurs in the Goorkhas. Some years ago a writer in the *Indian Medical Gazette* drew attention to the fact that Goorkhas recovering from typhoid fever were not well until the temperature went down to 97° F., and added some further remarks on the "normal Goorkha temperature." Captain Lalor, I.M.S., has recently given an account in the same medical magazine of feeding with sugar six healthy men in a Goorkha regiment. For 11 days before administering sugar the temperature was 97.1° F.; for 11 days during its administration 97.4° were registered; and for 11 days after its administration, 97.2°. The temperature rose in every case while the men were being fed with sugar. Captain Lalor's theory is that the low temperature is due to defective metabolism.

References to temperature in connexion with the subject of menstruation are chiefly to be found in the literature of the so-called "Cyclical Theory of Menstruation," a term that seems to have been used first by the professor of obstetrics in Louisville Medical College, Dr. Goodman.<sup>15</sup> Dr. Goodman makes slight reference to variations in pulse and temperature. His theory is that menstruation is the result of a general condition of the vascular system due to the rhythmic action of nervous centres.

Dr. A. E. Giles's<sup>16</sup> observations were taken upon patients who were admitted to the Chelsea Hospital for Women for "trifling conditions" such as ruptured perineum, stenosis of the os externum, urethral caruncle, cervical erosion, &c. Many had no operation performed, and in the case of the remainder the observations were either made before operation or begun at least a week after operation. Even so they can hardly be considered women in robust health under normal conditions. A brief summary of Dr. Giles's paper is as follows: Temperature observations—50 menstrual periods in 45 patients. Conclusions.—That the temperature is lowest at the middle of the inter-menstrual period, gradually rises to a maximum two days before menstruation, falls suddenly on the day preceding the flow, falls again, but more slightly, at the end of the period, rises slightly for the first week thereafter, and finally falls slightly at the beginning of the inter-menstrual period (Fig. 1). Blood-pressure.—Seven patients, nine menstrual periods, 40 observations. Blood-pressure greatest on the first two days of menstruation and on the day preceding menstruation; it is lower during the remainder of the period, but rises again slightly after its cessation. Pulse tracings taken by Dudgeon's sphygmograph. The author does not entirely agree with the cyclical theory of menstruation, but regards menstruation as the "conclusion of the reproductive phase of an alteration of nutritive and reproductive activity," whereas the cyclical theory regards menstruation as the result of a periodical "variation of metabolic activity" or "nutrition wave" manifested by variations in the temperature, blood-pressure, and amount of urea excreted per diem.

The first record of observations made upon the temperature during menstruation appears to be by Fricke<sup>17</sup> in 1838. He states that the temperature is slightly higher during menstruation.

In 1867 Squire<sup>18</sup> observed that there was a rise in temperature before menstruation and a fall at the time when menstruation occurred.

In 1870, Rabuteau<sup>19</sup> recorded a series of observations which showed that the amount of CO<sub>2</sub> excreted during the menstrual period was considerably less than at other times; also that the amount of urea excreted was less just previously to menstruation, and that it rose again after menstruation. The same writer has recorded further observations on pulse and temperature.

A brief summary of the results recorded by more recent writers may be given. Daily excretion of urea.—Maximum, just before menstruation. Minimum, just after menstruation. Gradual increase from minimum to maximum. Temperature.—A slight rise for about seven days before menstruation is followed by a fall just before the onset. Another

<sup>7</sup> Boston Medical and Surgical Journal, Feb. 7th, 1901.

<sup>8</sup> New York Medical Journal, Dec. 15th, 1900.

<sup>9</sup> THE LANCET, Feb. 23rd, 1901, p. 527.

<sup>10</sup> THE LANCET, August 19th, 1899, p. 519.

<sup>11</sup> Journal of the Sanitary Institute, vol. xx., Part 4, January, 1900.

<sup>12</sup> Dr. Robert Maguire: THE LANCET, Dec. 8th, 1900, p. 1633.

<sup>13</sup> Die Körperwärme des Gesunden Menschen, Studien von Prof. Dr. Theodor Jürgensen, Leipzig, 1895.

<sup>14</sup> Die Temperatur des Gesunden Menschen, Zeitschrift für Biologie, 1898.

<sup>15</sup> The Cyclical Theory of Menstruation, American Journal of Obstetrics, vol. xi., p. 673.

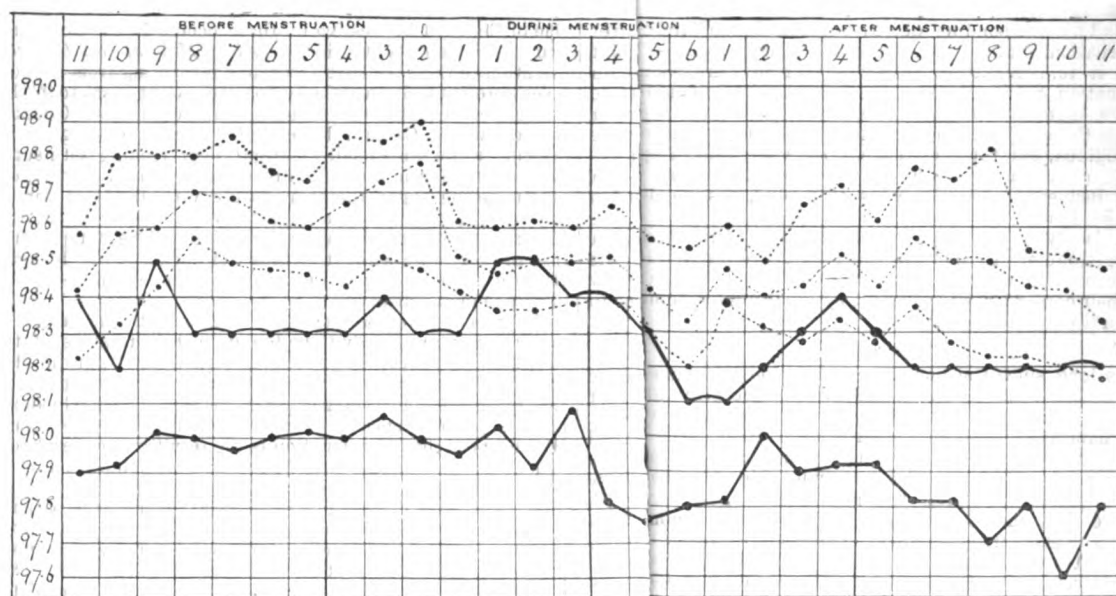
<sup>16</sup> The Cyclical or Wave Theory of Menstruation, Transactions of the Obstetrical Society of London, 1897, vol. xxxix., p. 115.

<sup>17</sup> Recherches sur la Température du Vagin et de la Matrice avant, pendant, et après les Règles, Journal de Fritch et Oppenheim, Gazette Médicale, 1838, p. 818.

<sup>18</sup> Puerperal Temperatures, Transactions of the Obstetrical Society of London, 1867, vol. ix., page 130.

<sup>19</sup> Gazette Médicale de Paris, 1870, p. 616.

FIG. 1.



Lower dotted line shows morning temperature. Middle dotted line shows mean temperature. Upper dotted line shows evening temperature. [Dr. A. E. Giles: "A Composite Chart of the Temperature in Relation to Menstruation, based on 50 Observations."] The upper black line shows the evening temperature and the lower black line the morning temperature; present observation of 20 charts, 1901.

rise of temperature is observed during the period. Blood-pressure.—This is below the average during the period, after the period it gradually rises, and there is a distinct decrease in blood-pressure either shortly before or at the time of the onset of menstruation.

Ott<sup>20</sup> of St. Petersburg, who gives a record of observations upon blood-pressure in 14 cases in which he used Basch's apparatus, finds that in 13 of these cases the blood-pressure fell considerably with the onset of menstruation, remained under the average during the period, and rose again after the flow ceased. The author concludes that the vasomotor system is the chief agent in preparation for reproductive activity and that this is proven by the variations of pulse and temperature, and by nervous symptoms as well as by changes in the uterus and ovaries.

A valuable contribution to the study of this subject was made in 1886 by the professor of materia medica in the Women's Medical College at New York City, Dr. Mary P. Jacobi.<sup>21</sup> In that year the Boylston Medical Committee appointed by the President and Fellows of Harvard University offered a prize of \$200 for the best essay on the following question: "Do Women require Mental and Bodily Rest during Menstruation, and to what extent?" The prize was awarded to Dr. Jacobi and her dissertation, a volume of more than 200 pages, thus became the Boylston Prize Essay of Harvard University for 1886. It is a careful and elaborate discussion of the subject. Dr. Jacobi collected many statistics and found, in the majority of cases, the following results. Excretion of urea.—Maximum a few days before menstruation and minimum immediately after; the amount decreases during menstruation. Pulse.—No uniform rate of variation. Temperature.—Rises just before menstruation, falls during menstruation. Arterial tension.—Maximum just before menstruation and minimum just after; rapid decrease during the menstrual flow.

The results of Dr. W. Stephenson,<sup>22</sup> professor of midwifery in the University of Aberdeen, are based upon four cases (the dates of all observations mentioned being June and July); a summary of his statement is here given in his own words:—

1. That menstrual life is associated with a well-marked wave of vital energy which manifests itself in the temperature of the body, in the

daily amount of the excretion of urea, and to a slighter extent in the pulse-rate. 2. That the cycle of changes takes a true wave-form divisible as to time into two nearly equal parts, the one below the other above the average for the whole period. 3. That the length of this wave varies in different individuals and may also vary in the same person. The urea wave and the temperature wave are equal in length in the same case. 4. That menstruation does not correspond with the apex or climax of the waves, but occurs five or six days after the decline has begun. It is probable that normally it occurs when the temperature curve reaches the mean; this was the case in nine out of 10 menstruations. The flow or evacuation cannot be regarded as the cause of the decline. 5. That the temperature wave is the most uniform and gradual in its rise and fall. In the urea curve the transition to elevation takes place more quickly, even suddenly. 6. That the temperature wave and the urea wave are independent of each other. 7. That whilst the pulse wave is not so marked in character it also shows a decided influence; it is depressed after menstruation and manifests a distinct rise some days before the next period. 8. In all the waves there are evidences of secondary waves.

The observations of Reinl<sup>23</sup> were based upon statistics obtained from 18 "relatively healthy" women, as far as possible alike in nourishment. The record includes 29 menstruations. These "relatively healthy" patients were suffering from chlorosis, version of the uterus, weakening of ligaments and walls of the vagina, &c. Only one was a virgin and their ages ranged from 24 to 41 years. Dr. Reinl finds a pre-menstrual rise of temperature, a menstrual fall, and a still lower post-menstrual temperature (Fig. 2).

The original single charts were arranged for recording observations every two hours for one week and then twice daily for four weeks. Fourteen two-hour charts and 20 records taken twice daily were received. It was specially requested that the same thermometer should always be used. Three of the 20 records being taken by nurses on night duty were not used in finding the average, but they presented the same features as the others. The chart shows a rise of temperature in the pre-menstrual period, a rise of temperature during the menstrual period, a fall of temperature just before menstruation, a fall of temperature at the end of menstruation, and a minimum temperature during the inter-menstrual period.

It remains to consider the large percentage of affirmative answers received to the questions. There is no doubt that the percentage, though large, is lower than it should be, for reasons already referred to. Several of those who kindly sent papers remarked afterwards that if they had the papers again they could put down more affirmative answers; when

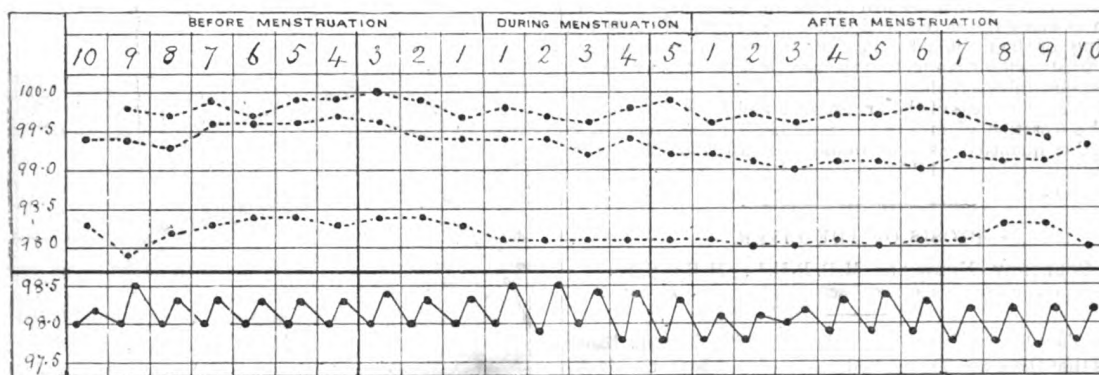
<sup>20</sup> Loi de Périodicité de la Fonction Physiologique dans l'Organisme Féminin, *Nouvelles Archives d'Obstétrique*, vol. v., September, 1890, p. 502.

<sup>21</sup> The Question of Rest for Women during Menstruation, New York, 1886.

<sup>22</sup> On the Menstrual Wave, *American Journal of Obstetrics*, vol. xv., p. 287.

<sup>23</sup> Die Wellenbewegung der Lebensprocesse des Weibes, *Volkmann's Sammlung*, No. 243.

FIG. 2.



Lower dotted line shows axillary temperature: Dr. Jacobi. Middle dotted line shows rectal temperature: Dr. Jacobi. Upper dotted line shows rectal temperature: Dr. Reini. Black line shows morning and evening temperatures (taken in the mouth), based on 20 observations, 1901.

their attention was drawn to the subject they observed what had previously passed unnoticed.

One can hardly consider the results of this inquiry without asking what these phenomena mean. If we could interpret them perhaps we should be more able to explain the true significance of menstruation. Nos. 1 to 9, and to a greater or less extent Nos. 14, 15, and 18, of the replies seem to originate from some condition of the nervous system. Nos.

10, 11, 12, and 19 seem to belong to metabolic processes. No. 13 may be explained by the high blood-pressure, and it may be that the increase of urea and the decrease of  $\text{CO}_2$  are connected. Nos. 20 and 21 are connected with the activity of the uterine glands and Nos. 16 and 17 would seem to indicate a lessened power of resistance, or a greater liability to infection. Toronto.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### A CASE OF LARGE PERI-NEPHRITIC ABSCESS WITH UNUSUAL SEQUEL.

By HENRY MALLINS, M.B., M.Ch. DUB.

A BOY, aged 14 years, was admitted into the Watton Cottage Hospital on July 22nd suffering from a painful swelling of the left side of the abdomen. On examination it was found that this region was dull on percussion from the ribs to the iliac crest, the line of dullness extending from the flank to within an inch of the median line. The lumbar region was distinctly bulged and was the seat of the chief pain. Pressure could be borne over the swelling in front. As he had been suffering from bladder trouble for several years the diagnosis of peri-nephritic abscess was made. The boy was so emaciated and the pulse was so feeble that any operative interference was deemed inadvisable. After a week's interval the swelling of the side commenced to disappear, as did also the dullness, and for a week before his death on August 16th all trace of it had gone. The emaciation was of the most marked description. At the post-mortem examination, which was made the next day, general peritonitis was observed. Distinct traces of a huge abscess extending from the stomach above to the sheath of the left psoas muscle below were found, the pelvis being full of large pieces of purulent lymph and the muscle sheath distended with thin yellow pus. The left kidney, enlarged to the size of that of a bullock, was practically converted into a bag of pus, which had evidently given way at a point on its convex surface, thus forming the starting point of the abscess, to which nature seems to have tried to put a limit by the formation of a wall of lymph, so poorly organised that it in the end gave way, permitting the contents to diffuse into the peritoneal cavity and thus explaining the disappearance of the swelling. The right kidney was also enlarged and was the seat of several deposits of caseous pus.

There was, unfortunately, no time to examine the bladder, as the examination, which was made under considerable difficulties, had to be abruptly terminated owing to the

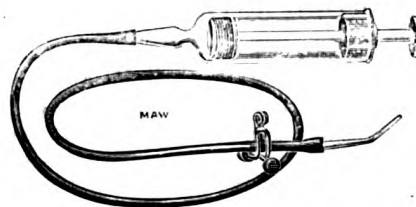
interference of a relative. As the mother had suffered from hip-joint disease since childhood I have but little doubt that a tuberculous ulcer of the bladder slowly infected the kidneys and led to the phenomena above recorded.

Watton, Norfolk.

#### SUBMAMMARY INJECTION OF SALINE SOLUTION IN THE TREATMENT OF COLLAPSE DURING AND AFTER POST-PARTUM HÆMORRHAGE.

By FRANCIS FOULDS, M.R.C.S. ENG., L.R.C.P. LOND.

In a recent case of collapse from post-partum hæmorrhage I injected 25 ounces of warm saline solution into the sub-mammary cellular tissue by means of the simple apparatus (of which an illustration is here given) brought to my notice by Dr. Drummond Robinson and made by Messrs. Maw, Son, and Thompson. Before the injection the patient



was almost pulseless (having no radial pulse) and was ghastly pale. She had sighing respirations, with a large, flabby, uncontracted uterus from which the placenta had to be peeled, and the hæmorrhage could only be controlled by bimanual compression. Within five minutes of the introduction of the saline fluid the pulse could be discerned at the wrist. The facial appearance and the character of the respirations improved and the patient regained consciousness—although her condition remained critical for several hours. She made a slow but uneventful recovery and is now in good health. In his "Handbook of Midwifery," Dr. Dakin states that "Münchmeyer injected saline fluid into the connective tissue and muscles of the back, &c.," and then goes on to say that the process is slow, and if the woman is in a dangerous state, too slow to be of any use. In this case the whole of the fluid was absorbed in

three-quarters of an hour but the improvement in the patient's condition was almost immediate, and I think this was because the site of the injection was near to the heart.

At any rate this method will appeal to the general practitioner as being far more expeditious than, and preferable to, hunting for the median basilic vein in a dying woman, and more trustworthy than rectal injection of saline fluid with its almost inevitable expulsion.

A little tenderness of the breast remained for a day or two and the secretion of milk was disturbed, but this latter is a negligible quantity, as one would naturally not allow the patient to suckle the child under the circumstances.

Droitwich.

#### PTOSIS OF THE LIVER.

BY COURTNEY NEDWILL, M.D. R.U.I., M.R.C.S. ENG.,  
VISITING SURGEON TO CHRISTCHURCH HOSPITAL, NEW ZEALAND.

MR. TREVES, in THE LANCET of May 12th, 1900, p. 1239, states that there are 80 recorded cases of ptosis of the liver, and says that out of this number only one is reported with hydatid cyst.

In July of last year an anæmic unmarried female, aged 27 years, came under my care at the Christchurch Hospital complaining a good deal of dragging pain in the side and back, more especially on standing. A large smooth and moveable tumour occupied the right side, descending towards the crest of the ilium. It could be pushed easily about from side to side and upwards and downwards. The costal level of liver dulness upwards was lower than normal. Opinions varied as to the nature of the tumour. On opening the abdomen the liver substance appeared to be normal, but situated in the lower anterior border there was a hydatid cyst close to the surface and not bigger than a turkey's egg. This was evacuated and the lining membrane was cleared out, wiped dry, and returned into the abdomen. Nothing was done in any way for the ptosis. Since her discharge from the hospital the patient has reported herself as being quite well.

Christchurch, New Zealand.

### A Mirror OF

#### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

#### BRADFORD ROYAL INFIRMARY.

A CASE OF ANGIOMA OF THE MAMMA.

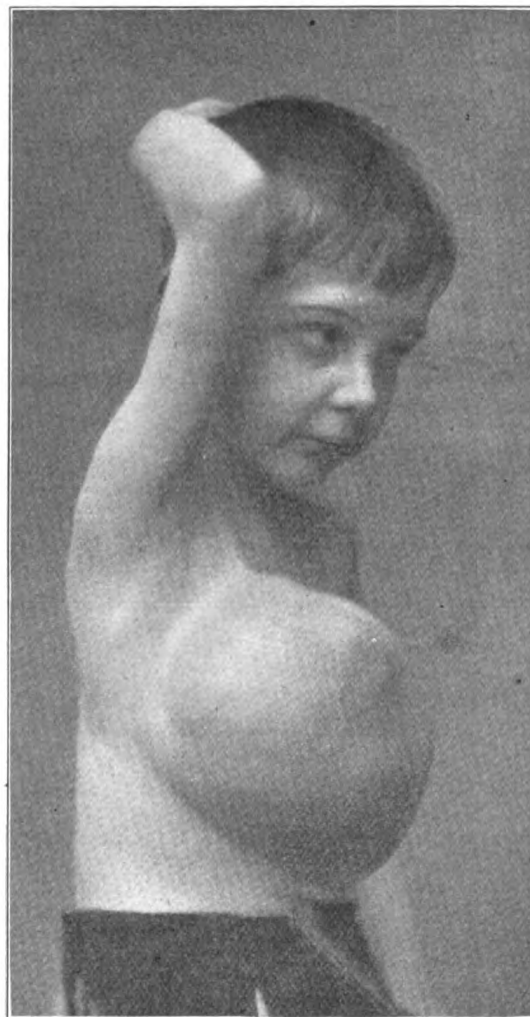
(Under the care of Dr. C. F. M. ALTHORP.)

ANGIOMA is one of the rarer new growths of the breast and may occur both in men and in women. The number of cases recorded up to the present is very small and therefore the following case well deserves to be recorded. Another case in a male subject has been published by Mr. J. Bland-Sutton.<sup>1</sup>

On Jan. 12th, 1901, a boy, aged seven years, was admitted into the Bradford Royal Infirmary under the care of Dr. C. F. M. Althorp, on account of an enormous tumour in the region of the right breast. When the patient was born a small swelling of the size of a hen's egg was noticed near the nipple of the right breast. So far as the parents could remember the skin was not discoloured. As the boy grew the tumour slowly increased in size, but it did not inconvenience him in any way nor did it prevent him from playing football and other games. Whilst at play on Dec. 29th, 1900, he received a severe knock on the tumour, in consequence of which it was noticed that there was a sudden

increase in the size of the tumour, with discolouration of the skin. From day to day the swelling rapidly increased in size, so that in 14 days it became twice the size it was before.

FIG. 1.



Condition before operation.

the accident. Fig. 1 shows the condition of the boy on admission. The skin over the tumour was discoloured in places and the superficial veins were enlarged. The swelling as a whole was freely moveable over the front of the chest-wall, its surface was lobulated, and in places there was evidence of fluctuation. In other respects the boy was in good health.

On Jan. 16th ether was given and the tumour was removed. A curved incision was made along the upper margin of the growth and the flap of skin was dissected upwards. The wound was deepened until the pectoralis major muscle was reached, and part of the muscle was removed with the growth. In this way the tumour was undermined and separated from the chest-wall. There was free bleeding. A second flap was raised along the lower border and a third flap from the upper and outer borders of the growth. In a few places small cysts were opened and much liquid, dark-coloured blood escaped. The tumour was in this way rapidly enucleated. Bleeding points having been tied the wound was closed with silkworm-gut sutures, no drain being used. A dressing of gauze and wool was kept on by a bandage. The operation lasted for half an hour and the patient stood it very well. Before the ether was given he had strychnine injected hypodermically and a rectal injection of brandy.

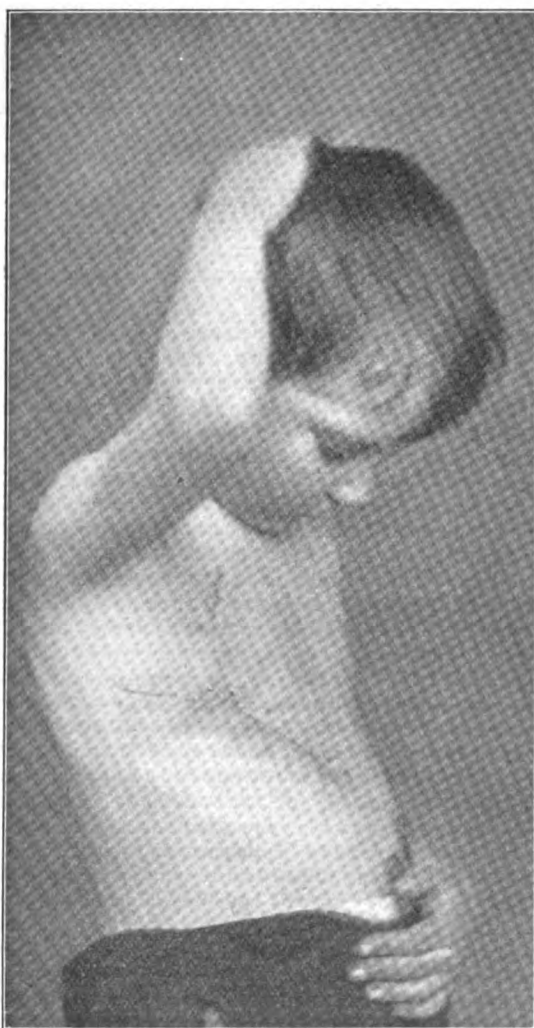
<sup>1</sup> Transactions of the Clinical Society of London, vol. xxii., p. 187.

The after-history was uneventful. On the sixth day after the operation the wound was dressed; it was found to be dry and half of the stitches were removed. The patient got up on the eighth day and the remainder of the stitches were removed on the thirteenth day. Since then the boy has been seen from time to time and in September was in robust health and locally the wound was soundly healed and presented the appearance shown in Fig. 2.

*Remarks by Dr. ALTHORP.*—After the operation the growth was cut into and 30 ounces of dark-coloured liquid blood came away, the tumour collapsing as the blood ran out. This was on account of the tumour being formed of small cysts which did not communicate with one another. Dr. F. W. Eurich kindly examined the tissue microscopically and found (1) much unstriated muscle, (2) cavernous tissue, and (3) myxomatous tissue. This appeared to point to the tumour being similar to those described by Virchow as "myomata of the unstriated muscular tissue of the areola and nipple, with telangiectasis." Before removal the tumour measured  $21\frac{1}{2}$  inches in circumference,  $11\frac{1}{2}$  inches from above downwards, and  $14\frac{1}{2}$  inches from side to side.

The case is worthy of being recorded on account of its extreme rarity. Very few references to the subject of angioma of the breast are to be found in surgical text-books.

FIG. 2.



Condition after operation.

Mr. Marmaduke Sheild in his work on "Diseases of the Breast" states that "true cavernous tumour implicating the breast substance is very exceptional," and that he has "never met with a case where the skin was not principally

affected." He also gives details of a case, which is mentioned as "the most remarkable case ever related in this country of angioma of the mamma" (which is reported in detail in Vol. XXX. of the Transactions of the Royal Medical and Chirurgical Society). It was in 1845, and Mr. Image of Bury St. Edmunds had charge of the patient, a girl, aged 21 years. The left breast measured 15 inches in circumference and 11 inches horizontally. Removal was attempted by strangulating the vessels at the base by ligatures, having turned back two flaps on either side. There was so much loss of blood that the patient died the same night.

No allusion to the subject of angioma of the breast is to be found in the works of Velpeau and of Gross. Langenbech mentions a case where the arteries and veins were so dilated that the mass resembled a vascular goitre. Even in two of the most recent surgical works the subject is only referred to as "occurring so rarely that no further reference need be made,"<sup>1</sup> and "angioma of the mammary gland is occasionally seen."<sup>2</sup>

## MIDDLE WARD HOSPITAL, MOTHERWELL.

### A CASE OF DRY GANGRENE IN SCARLET FEVER.

(Under the care of Dr. JOHN J. BUCHAN.)

GANGRENE as a rare complication of scarlet fever is of great interest, especially from the point of view of its etiology. The gangrene is usually bilateral and symmetrical and this fact in itself demonstrates conclusively that at all events in most cases it cannot be embolic in origin; this is also shown by the fact that it is nearly always "dry," for embolic gangrene is almost invariably of the moist variety. Dry gangrene can only occur when the blood-supply to a part is slowly diminished so that the veins and lymphatics can carry off the fluids of the limb. From these considerations we may conclude that the lumen of the vessel is gradually narrowed, probably by clotting, and that this thrombosis is assisted by the condition of the blood.

A boy, aged 13 years, was, on March 23rd, 1900, admitted to the Middle Ward Hospital, Motherwell, notified to be suffering from scarlet fever. His history previously to admission was as follows. His present illness commenced on March 20th with sore-throat, sickness, and vomiting. On the 22nd the scarlatinal rash appeared on the chest and spread over the trunk and limbs. No definite history of recent injury was obtained. On admission a brilliant typical rash was seen on the trunk and limbs; in colour the rash was bright scarlet on the trunk, but it had rather a bluish appearance on the limbs. The hands and feet were blue and cold. The tonsils, the pillars of the fauces, and the soft palate were swollen and reddened, but the inflammatory state of the throat was not great. The pulse was exceedingly rapid, numbering 150 to the minute; it was not easily felt and tended to be irregular. The temperature was  $104.2^{\circ}\text{F}$ . There was, however, no delirium. The special treatment resorted to was cold sponging every four hours to bring down the temperature and the administration of one drachm of whisky every two hours.

On March 24th the temperature was  $102^{\circ}$  in the morning and  $102.6^{\circ}$  in the evening. The urine contained a considerable amount of albumin. The pulse was 150 to the minute and irregular. The hands and feet were still blue and cold. The whisky was increased to two drachms every two hours and a mixture containing tincture of digitalis and liquor strychninæ in one and a half minim doses of each was given every four hours. Ten cubic centimetres of anti-streptococcic serum (Burroughs, Wellcome, and Co.) were injected. On the 25th the temperature was  $100.2^{\circ}$  in the morning and  $100.4^{\circ}$  in the evening. Both legs showed blue engorged veins standing out from the still brilliant rash; this was best seen in the right leg, in which about the apex of Scarpa's triangle and in the back of the calf pain was felt. On the 26th the temperature was  $99^{\circ}$  in the morning and  $99.6^{\circ}$  in the evening. The stimulant was stopped, but the digitalis and strychnine mixture was continued. The heart was normal to examination. On the 27th the temperature was  $100.4^{\circ}$  in the morning and  $100.6^{\circ}$  in the evening. The patient had a slight epistaxis in the morning and the urine for the first time contained blood. The left leg was much better, but the

<sup>1</sup> Mr. H. J. Stiles in his article on Diseases of the Breast, *Encyclopædia Medica*, vol. vii.

<sup>2</sup> Dr. Warren: *International Text-book of Surgery*—Gould and Warren.

right leg was worse. Pain was still felt at the apex of Scarpa's triangle and right down in a line to the back of the calf. A hæmorrhage took place underneath the skin on the inside of the calf, forming a large bluish blotch. On the 28th the temperature was 100·6° in the morning and 102·2° in the evening. The heart was still normal to examination and the urine still contained albumin and blood. The sputum on this day was blood-tinged but there were no abnormal physical signs in the lungs. No pain was complained of anywhere except in the right leg, where it continued in all its severity. The hæmorrhagic blotch of the 27th had spread particularly downwards and was joined by other smaller blotches. Always cold and blue, the right leg was noted on this day to be almost dead cold. On the 29th there was no improvement at all. A hæmorrhagic spot appeared over the patella, there was slight epistaxis, and the urine still contained albumin and blood in considerable amount. On the 31st a line of redness was noted as appearing across the leg and running obliquely downwards and backwards from just above the patella. This seemed to indicate the beginning of a line of demarcation; below this the leg was becoming distinctly gangrenous. On April 3rd the temperature settled to normal. The urine contained no blood but was still albuminous. From this date there was no further epistaxis or hæmoptysis and albumin entirely disappeared from the urine on May 2nd. The lower part of the right leg became mummified and a definite line of demarcation formed just above the knee. Professor D. N. Knox of the Glasgow Royal Infirmary, after seeing the case several times, decided to amputate the leg, which he did on May 5th. The boy made a rapid and complete recovery.

*Remarks by Dr. BUCHAN.*—The special points of interest to be noted about this clinical history are as follows. The patient was a boy, 13 years of age, suffering from scarlet fever of a most severe type, presenting many of the so-called "malignant" characters; the disease was at different times complicated by hæmaturia, epistaxis, and hæmoptysis. The first symptoms of gangrene appeared on the sixth day of scarlet fever as blue engorged veins and pain in the leg and on the eighth day of the disease a subcutaneous hæmorrhage took place. The extent of the gangrene was manifest by the twelfth day of the disease, although the line of demarcation was not distinct until some time after this.

Considering the great frequency of scarlet fever and the large number of carefully recorded observations made this complication of the disease must be excessively rare. Hochenegg,<sup>1</sup> Osler,<sup>2</sup> and others mention symmetrical gangrene as arising in scarlet fever, while the former in doing so points out that symmetry is not always characteristic of gangrene in scarlet fever. Holmes<sup>3</sup> records a case of gangrene of the left leg in this disease in the case of a woman, aged 40 years, while Pearson and Littlewood<sup>4</sup> have put on record an exceedingly interesting case of dry gangrene in scarlet fever affecting both legs on the ninth day of the disease in a boy, four years of age, and necessitating amputation.

But though in scarlet fever dry gangrene so seldom occurs in several of the other specific fevers, notably typhus fever and typhoid fever, gangrene has been long a well-recognised complication.<sup>5</sup> In these fevers its occurrence does not altogether depend on the duration of the disease, as Moore<sup>6</sup> has recorded the case of a patient with typhus fever dying on the fourth day of the disease from gangrene of the fingers. Undoubtedly, however, the lengthened duration of the pyrexia in these latter diseases exercises a great influence on its more frequent occurrence in them. At the same time cognisance must be taken of the fact that though the duration of the pyrexia in scarlet fever is usually much shorter yet the intensity of the action of the virus is in a large number of cases—as in the above case—much greater than in typhoid fever or typhus fever, and, further, that in scarlet fever we occasionally meet with a typhoid form in which the duration is greatly lengthened.<sup>7</sup>

In regarding the circumstances favourable to the production of gangrene in scarlet fever we may consider three groups—(1) the change in the blood, (2) the weakened heart, and (3) the mechanical difficulties of the circulation.

The blood in scarlet fever becomes greatly impoverished through the mere maintenance of the temperature of the body at a higher level<sup>8</sup> as well as through the growth of the organism causing the disease, while at this time the resources of the blood are not easily replenished nor are the accumulating waste products easily got rid of. At the same time the toxins generated by the virus are causing the blood to have a deleterious effect on the tissues. This is, of course, altogether apart from any local effect which the virus may have.

Though so good an authority as Osler<sup>9</sup> apparently regards myocardial changes as uncommon, yet Henschel,<sup>10</sup> Stengel,<sup>11</sup> and Mitchell Bruce<sup>12</sup> all lay stress on the frequent and marked changes found in the myocardium in this disease. Moore<sup>13</sup> states that "the heart muscle suffers severely, especially from the hyperpyrexia which accompanies the severer forms of the disease." In a case of malignant scarlet fever so early as the fourth day I have been able to make out on post-mortem examination the soft and distinctly friable character of the heart muscle. Indeed, it is almost impossible to think otherwise from the uniformly great frequency of the pulse in this disease and the clinical evidences of cardiac failure so often found. It is of some interest to note that Stengel<sup>14</sup> states that this acute diffuse myocarditis is more frequent in scarlet fever than in typhoid fever, though first noted in the latter disease. There can be little doubt that such a cardiac change influenced profoundly the occurrence of gangrene in the above case. The possibility of a detached valvular vegetation the result of scarlatinal endocarditis causing gangrene should not be lost sight of.

The mechanical difficulties of the circulation in certain parts of the body, such as the toes, ears, causing these parts to become gangrenous, are too well known to require comment.

## Reviews and Notices of Books.

*A Manual of Medicine.* Edited by W. H. ALLCHIN, M.D., F.R.C.P. Lond., F.R.S. Edin., Senior Physician and Lecturer on Clinical Medicine, Westminster Hospital. Vol. III., Diseases of the Nervous System. London: Macmillan and Co., Limited. 1901. Pp. 428. Price 7s. 6d.

THE third volume of Dr. Allchin's *Manual of Medicine* is a valuable and instructive text-book on diseases of the nervous system. Within recent years the anatomy and physiology of the nervous system have been thoroughly investigated and great advances have been made. A new terminology has been established, so that anyone not fully conversant with the terms recently introduced in this branch of medical science would be greatly at a loss to understand the theoretical discussions which must naturally arise in considering more especially the pathology of the diseases of the nervous system.

The editor has very wisely introduced an excellent article on the general anatomy and physiology of this system written by Professor C. S. Sherrington. This is a most valuable contribution and a careful study of it will enable the reader to understand the intricate structure of the nervous system and the manner of its working. The language employed, though somewhat terse, is exact and easily comprehended. The structure of the neuron is first described and then attention is directed to the root cells and reflex action. The bulbo-spinal axis with the afferent and efferent channels concerned therewith are fully described. The subject is a difficult one, but Professor Sherrington shows in this article a power of description which renders a comprehension of the complex problems involved as simple as such matters

<sup>8</sup> Keen: In article Gangrene in Surgical Complications and Sequels of Typhoid Fever, 1899.

<sup>9</sup> Loc. cit.

<sup>10</sup> Children's Diseases (New Sydenham Society's Translations, 1889).

<sup>11</sup> Pathology, 1899, p. 366.

<sup>12</sup> Article, Acute Parenchymatous Myocarditis in Keating's and Edwards's Cyclopedia of Diseases of Children.

<sup>13</sup> Eruptive and Continued Fevers, 1892, p. 178.

<sup>14</sup> Loc. cit.

<sup>1</sup> Medicinisches Jahrbuch, 1885, No. 4.

<sup>2</sup> Principles and Practice of Medicine.

<sup>3</sup> System of Surgery.

<sup>4</sup> THE LANCET, July 10th, 1897, p. 84.

<sup>5</sup> Keen: Toner Lecture, 1876.

<sup>6</sup> Report of the Cork-street Fever Hospital, Dublin, 1878-79.

<sup>7</sup> Goochall and Washbourn: Infectious Diseases.

can be made. The cell system of the spinal cord is rendered more easy of explanation by several diagrams, the numerous tracts being indicated by coloured patches. For the sake of clearness it would be better for physiologists to decide upon some terminology founded on an anatomical basis than to continue to use such terms as "Clarke's column," "Deiters' nucleus," &c. The author has apparently adopted this plan as far as possible, but numerous tracts and cells are still named after the observer who first described them.

As an introduction to "Diseases of the Nervous System" Dr. W. Aldren Turner has written an article under the heading: "The Neuron in its Relation to Disease of the Nervous System." In a modern text-book upon diseases of the central nervous system the separation of the affections above and below the level of the foramen magnum into cerebral and spinal disorders respectively no longer holds good. Dr. Turner points out that the present accepted conception of the constitution of the central nervous system is that of a series of neurons, some of which commence in the cerebrum and terminate in the spinal cord, while others, arising in the spinal cord and posterior spinal ganglia, terminate in the several portions of the brain. As many forms of organic nerve disease are at present construed as degenerations of one or other system of neurons it is clear that no hard-and-fast line can be drawn between disorders of cerebral origin and those of spinal origin. The classification of diseases of the central nervous system is now undergoing entire rearrangement and Dr. Turner gives a table of degenerations classified according to the neuron system primarily involved. Under this plan there are three main divisions: (1) the cerebro-spinal or upper efferent neuron system, commonly called the pyramidal system; (2) the spino-peripheral or lower efferent neuron system; and (3) the lowest afferent or posterior ganglion neuron system. There may be simultaneous affections of both the efferent neuron systems, as is the case in amyotrophic lateral sclerosis, and, finally, a few diseases would appear simultaneously to implicate the lowest afferent and the upper efferent neuron systems; Friedreich's ataxia is an example. Dr. Turner also contributes good articles on the Diseases of the Cerebral Membranes, Cerebral Vascular Lesions, Intracranial Syphilis, General Paralysis of the Insane, and Tumours of the Brain. He also writes on Focal Diagnosis.

The difficult subject of Aphasia and other Defects of Speech is ably considered by Dr. J. S. Collier. The question of an "ideational centre" is discussed. Dr. Charlton Bastian opposes the theory that there is such a centre, and Dr. Collier maintains that there is no pathological or clinical evidence of its existence.

Dr. J. A. Ormerod writes on Diseases of the Spinal Cord and its Membranes. He commences by referring to the fact, to which we have already drawn attention, that no actual division is anatomically possible between cerebral and spinal disease; convenience in treating the subject alone justifies any attempt at separation. The general morbid anatomy of the cord is well described and illustrated by some capital diagrams. The more modern methods of staining microscopical sections of the central nervous system have rendered the production of illustrations far more easy and satisfactory than was formerly the case, and those here shown (drawn from original preparations in the possession of Dr. W. A. Turner) demonstrate excellently the sclerosed areas he found in various diseases. The description of the affections of the spinal cord is all that could be desired and we can strongly recommend a study of these pages to students about to present themselves for examination. A useful "Table of Spinal Localisation" concludes this section of the volume.

The Muscular Dystrophies are also considered by Dr. J. A. Ormerod. The rare conditions, myotonia congenita and myasthenia gravis, are both described. Dr. Purves Stewart's

contribution on Diseases of the Peripheral Nervous System is likewise worthy of high praise. It is essentially practical throughout and the student will find therein, not only all the information he requires for his examinations, but also hints as to diagnosis and treatment which will be useful to him throughout his professional career. Dr. Stewart also writes on Lesions of the Cauda Equina and on Acute Ascending Paralysis. In his description of multiple neuritis Dr. Stewart has scarcely brought his observations up to date. He says, "Alcoholic neuritis is commoner than all the other varieties put together." He subsequently refers to the Manchester outbreak of neuritis, but does not discuss the doubts which have been thrown on the relative powers of alcohol and arsenic as etiological factors in the production of neuritis.

Dr. W. S. Colman and Dr. J. S. Collier are jointly responsible for a very interesting series of articles on Functional Diseases of the Nervous System. Amongst the most important of these is Epilepsy. We note that the term "cortical fits" is employed for the variety usually known as "Jacksonian"; this is in accord with the feeling we have already expressed that it is preferable not to call a disease after the observer who first described it, although due honour should be accorded to the physician or surgeon. The diagnosis between functional and organic disease frequently presents very great difficulties, but in the section on Hysteria the several points to be relied on when such a problem presents itself are clearly indicated. The editor contributes interesting articles on Headache and Trophic neuroses, whilst Dr. James Taylor writes on Medical Ophthalmology and Dr. Bertram Abrahams on the Medical Application of Electricity.

We can strongly recommend this volume to the notice of students. From their point of view it is one of the best, if not the best, of the manuals of diseases of the nervous system which we have seen. Practitioners also will find it most convenient for reference. Controversial points are not so fully discussed as in the larger text-books, but stress is laid on the practical points of the symptoms, diagnosis, and treatment.

*Topographie des Weiblichen Ureters. (Topography of the Ureters in the Female.)* By Dr. JULIUS TANDLER and Dr. JOSEF HALBAN. Atlas with 32 Chromo-lithographic Plates and Explanatory Text. Vienna: Wilhelm Braumüller. 1901. Price 30 marks.

THE importance of the anatomical relations of the ureters to the gynaecologist and obstetrician can hardly be overestimated. Their relations to the broad ligaments and cellular tissue of the pelvis play a great part in determining the difficulties and dangers of many of the operations performed upon the uterus, both by the vagina and by the abdomen. A clear and accurate knowledge of these ducts is therefore essential to all who practise operative gynaecology. This knowledge is best obtained by actual dissections of the pelvis. This is, however, a method of study not often available to the surgeon, and he is therefore compelled to fall back upon text-books and atlases of anatomy. The present atlas is a work of considerable value, and a study of its plates will do much towards familiarising the surgeon with the relations of the ureters both in the normal and also in many abnormal conditions of the pelvic organs. The book consists of 32 chromo-lithographic plates with explanatory letterpress. After a number of plates illustrating the normal anatomy of the ureters, and the dissections necessary to expose them through the abdominal wall with and without division of the peritoneum, a very important series of illustrations is given explaining the operation of total abdominal extirpation of the uterus. One of the arguments used by those in favour of supra-vaginal amputation of the uterus rather than total hysterectomy is the great

risk run by the ureters in the latter operation. The six plates illustrating the operation are therefore amongst the most important in the atlas, and show very clearly both the risks the ureters run and how best they may be avoided. The changes produced in the position of the ureters by drawing down the uterus are clearly shown, and the fact that in the operation of vaginal hysterectomy when properly performed the ureters are in very little danger can be clearly seen from the dissections. Plate XIX. is a most interesting one of a ureteral fistula following total extirpation of the uterus, due to the right ureter having been ligatured at too great a distance from the uterus. Plates XXI. and XXII. are valuable as showing the relations of the ureters after drawing aside the rectum in the sacral operation for removal of the uterus. Two sagittal sections are given showing the pregnant uterus at full term and its relation to the ureters. The anatomy of the uterus and bladder in a case of inversion of the puerperal uterus is figured in Plate XXV., and the normal relationship of these structures to the uninverted cervix is well seen. The elongation and dragging upon the ureters in cases of cystoceles is important and the plate illustrating a uretero-vaginal fistula in a case of carcinoma uteri shows how readily in this disease these ducts may be involved by the growth extending beyond the cervix. The authors have been able to figure a very interesting case of double ureter in which the supplementary one is dilated and ends blindly in the anterior vaginal wall just within the vulvar orifice, as often happens in such cases. The whole work is one of great value and interest and both the authors and artist are to be congratulated upon the excellence of the dissections and the clearness and merit of the drawings illustrating them.

*Cyclopædia of the Diseases of Children.* Vol. V. Edited by WILLIAM A. EDWARDS, M.D. Illustrated. London: J. B. Lippincott Company. 1901. Pp. 1330. Price 25s.

THE Cyclopædia in its original form of four volumes was published in the year 1889 under the joint editorship of the late Dr. Keating and Dr. W. A. Edwards. Since then it has constituted the standard work on pediatrics, not only in those countries in which English is the national language, but in far countries, like Japan, where the English language is read. The rapid evolution of this comparatively new branch of medicine in many respects would have justified a completely new and revised edition, but no doubt the publishers and the present editor, Dr. Edwards, in adjudicating between the respective advantages of a new edition and a supplemental volume, have chosen the wiser course in adopting the latter alternative. The present volume, which is No. 5 of the series, includes with but few exceptions new or revised articles on every branch of pediatrics in which there has been any notable advance in the departments of pathology, etiology, or therapeutics. The entirely new matter comprises chapters on Auto-intoxication, by Dr. J. J. Putnam and Dr. E. W. Taylor; on Toxins and Antitoxins, by Dr. Victor C. Vaughan; on the Normal Præcordia of Infancy and Childhood, by Dr. A. R. Edwards; on Fibroid Disease of the Lung, by Dr. F. A. Packard; on Infantile Atrophy, by Dr. John Lovett Morse; on the Roentgen Rays in the Surgery of Children, by Dr. W. W. Keen; and on Epiphyseal Separations, by Dr. R. H. Harte. Some few of the revised articles appear under the names of authors who wrote for the Cyclopædia in its original form, and this is notably the case in the articles on Rheumatism, Infantile Scurvy, Functional Diseases of the Heart, and the Feeding in Infancy and Early Childhood which emanate respectively from the pens of Dr. Cheadle, Sir Thomas Barlow, Dr. J. M. Da Costa, and Dr. H. Rotch. As regards the majority of revised articles there appears to have been, if we may use

the expression, a sort of "general post" among the contributors. The same names appear but over different chapters. We notice, however, with regret that Dr. Holt, who originally was responsible for the article on Diarrhoeal Disease, has not in the supplemental volume given the Cyclopædia the benefit of his writing. This is no doubt due to the fact that he himself is engaged in revising his own excellent work on the Diseases of Childhood. We notice, further, certain alterations in the nomenclature of disease—for instance, what was originally called "membranous enteritis" is now entitled "mucous disease," the name, we believe, given to the condition by Dr. Eustace Smith. The article on this subject is contributed by Dr. L. Starr. Inflammatory disease in the neighbourhood of the cæcum is now included under the title of "appendicitis"; originally it bore the somewhat cumbrous titles of "perityphlitis," "paratyphlitis," and "perityphlitic abscess."

As regards the subject-matter in the more important additions in the supplemental volume we notice that in the article on Auto-intoxication Albu's classification is accepted. In this classification are included a large number of diseases which in the earlier volumes were distinctly regarded as of extrinsic origin, and in this respect the evolution of the pathogenesis of tetany is particularly interesting; originally it was included among the diseases of the peripheral nervous system. In the present volume Dr. E. W. Taylor claims it as belonging to his series of auto-intoxications, and Dr. F. X. Dercum writes a special article on the subject, in which he unreservedly declares for the thymic origin. To quote his own words: "All the facts in regard to tetany can be reconciled by supposing that tetany occurs by reason of some impairment of the function of the thymus gland, and that the latter is no longer able to protect the organism against tetany-producing toxin. It does no violence to the facts to further suppose that the impairment of function is directly related to insufficient and improper food and bad hygiene."

It is impossible within the compass of a short review to do justice to the many additions to the Cyclopædia; from want of space we can do no more than refer to those which bring the important diseases of the nervous system into line with the almost revolutionary advances of modern neurology. In this connexion we would mention the articles on Amaurotic Family Idiocy, by Dr. B. Sachs, and that on Hereditary and Locomotor Ataxy, by Dr. Joseph Collins. It is, perhaps, to be regretted that the editor has not seen his way to include a revised article on rickets, the most common and perhaps indirectly the most serious complaint of childhood; and, further, as a work of reference many readers would have doubtless preferred to have seen perpetuated in the supplemental volume that excellent precedent (which was of special value in the first four volumes), of supplying a bibliography at the end of the most important articles. Dr. W. A. Edwards, however, deserves full credit for having in his single-handed capacity of editor of this supplemental volume fully maintained the traditions of the first four volumes.

ERRATUM.—In our review of Dr. Woods Hutchinson's "Studies in Human and Comparative Pathology," which appeared in THE LANCET of July 13th, 1901, p. 86, the name of Dr. Edward Blake, the Editor of the work, was erroneously printed as "Dr. Edward Lake."

DEVON COUNTY ASYLUM.—The Local Government Board inspector (Major Norton) held an inquiry at Exminster on Sept. 25th concerning the application of the St. Thomas Rural District Council for sanction to borrow £4110 for works of sewerage for Exminster. The application had arisen through the district council being under the necessity of finding means of disposing of the sewage of the Devon County Lunatic Asylum.

# THE LANCET.

LONDON: SATURDAY, OCTOBER 5, 1901.

## The Reconstitution of the Royal Army Medical Corps.

It was with much gratification that we were enabled last week to refer by way of anticipation to some very noticeable points which we had good authority for stating would be found in the then forthcoming report of Mr. BRODRICK'S Committee on the Reorganisation of the Army Medical Services. Without liberty to use the complete text of the report we should not have been justified in saying more than we did, and it would, of course, have been altogether premature to have pronounced any definite opinion in regard to it. Still, the quality of the information was such as to be indicative of the spirit and aim with which the inquiry had been conducted and was very significant, at the same time, of the principles on which the new and complete scheme of army medical reform would be found to have been moulded. The report of the Committee appointed by the Secretary of State for War has now been published and the full text of it appears in the present number of THE LANCET. It need scarcely be said that it is a far-reaching document of great importance to our readers and well worthy of being carefully considered, and that not from any narrow or merely expert point of view. Its recommendations are of national interest and vitally concern our army as a whole—indirectly all armies, we might say. And their influence will not be circumscribed within the limits of the Army Medical Services, or be felt by the medical profession of this country alone, so that we would beg all our readers to approach the consideration of the report in a broad, comprehensive spirit—not looking to see how this or that grievance has been met, but placing themselves in the position of the Committee and trying to realise the all-round and sterling nature of the attempt to reorganise a most valuable branch of our national defences.

The report is a long and necessarily in parts a technical one; it has been drawn up apparently with great care and ingenuity, and evidently after full deliberation, for it traverses and covers most of, or all, the points which have been at different times the basis of dispute or difficulty. It is consequently very elaborate—indeed, many people may think it too elaborate. Such is not our impression. It seems to us that the inquiry has been set about with an earnest aim and conducted on sound principles, and the result is a report framed on bold and generous lines which warrants us in indulging in the hope and belief that a new and promising future is in store for the Royal Army Medical Corps. The effect and working of some of the recommendations must for the time perhaps partake more or less of the

nature of experiment. Others may have to be still further developed or may be modified. For example, it would be advisable that the Director-General should have a place on the Army Board that he might speak in support of the proposals of his Advisory Board. Time and experience will probably suggest other improvements. It may be regarded as an indication of the great importance which the Government attached to this inquiry that the Secretary of State for War in announcing the names of the Committee added that he proposed to take the chair himself. One distinct advantage of his having done so is that the recommendations will, no doubt, be carried out. It was quite clear from the constitution of the Committee, especially from the names and qualifications of the members of the medical profession in civil life who were appointed to serve on it, that the Government wanted to make of the Royal Army Medical Corps a division of the medical profession worth the while of the best student to enter; they wished to put the service on a permanently good footing and to keep it there. One of the great aims of the Committee has been to bring the Army Medical Services into the closest relations with the profession in civil life, and from start to finish of the report it may be seen that to this aim practical effect has been given.

Of course, the officers of the Royal Army Medical Corps have many other duties to discharge besides those of a purely medical character. Bearing this in mind the reader of the report of Mr. BRODRICK'S Committee may, perhaps, think that the medical path is too much strewn with examinations, and that *chevaux de frise* of conditions and examinations have been placed round every step of the army medical officer's career. We confess to a feeling of sympathy with this view, but it will be seen that the subjects of examination are to be as a rule of a really practical and clinical character. It was unavoidable that the Government should exact some test, if the principle of selection is to be followed, for the separation and reward of those who are specially entitled to consideration from those who are not. It has been said that money measures men; and the rates of pay are increased, provision is made in the way of bonuses for those who do not desire continuous army service, and an earnest attempt has been made to remedy the main grievances which have rendered the service unpopular. Under the system now to be inaugurated young men of high professional qualifications can enter the army for a time and relinquish the service without unduly sacrificing their subsequent chances in civil life: on the other hand, those who desire to make the service a permanent career will know that scope will be given for superior ability and professional attainments. It can no longer be said that under the new *régime* no encouragement is held out to men of professional skill and scientific attainments, or that the prosecution of medical and scientific research is ignored. We hope and believe that the medical profession will view the recommendations of Mr. BRODRICK'S Committee as we do and that they will consider that the terms offered to the Royal Army Medical Corps are liberal and such as open up a fine field to the young practitioner for the display of professional zeal and ability, together with the other qualities that characterise the manly man.

## The Introductory Addresses.

THE Introductory Addresses which we publish to-day present much variety of subject and will appeal to students—not to say practitioners—of different tastes and mental constitution. We make no attempt, of course, to discuss all the topics raised, and if we single the words of one or two of the speakers out for notice it is that we may deal more particularly with questions likely to interest medical students at the present moment. The subject of medical education is just such a question. The address of Dr. P. W. LATHAM at St. George's Hospital and that of Dr. J. W. TAYLOR, Professor of Gynæcology in the University of Birmingham, at Charing Cross Hospital, form respectively an exposition of the great principles of medical education, and of the moral force which must actuate the student himself, and without which the most perfectly equipped school and the wisest and most efficient teachers will fail to produce good results. These are the two main points with which the introductory lecturer has to deal or between which he has to take his choice of theme. He may either deal with the methods and details of medical education and press his views on students and teachers alike, or he may appeal to all that is earnest and high-minded in the students before him and throw upon them the duty of working out their own teaching, making the best of their actual opportunities, and realising the very highest ideals of life and work which are possible to them.

Dr. LATHAM speaks with authority on the methods of study and of education. He reminds his hearers that more than a quarter of a century since he tried to introduce improvements into medical education, taking this journal as the medium of his views. He advocated two important changes—firstly, the promulgation of schedules limiting the range of examinations in each subject, the questions within that range to be searching and complete; and secondly, the abolition of certificates of attendance on lectures, with the provision that when a student presented himself for public examination he should bring with him certificates from his teachers of having gained sufficient knowledge to justify him in submitting himself to test. We supported these proposals at the time and to a certain extent they have been adopted. The General Medical Council in the following year passed two resolutions recommending, firstly, that in the case of certificates presented before admission to the examinations of the several licensing bodies, each should include a statement from the teacher or teachers that the candidate had satisfactorily attended examining classes from time to time held on the subject of study to which the certificate related; and, secondly, that it is desirable that in several of the subjects of examination—e.g., botany, zoology, chemistry, and materia medica—the scope should be limited and defined. Unfortunately, in accordance with a bad habit of the General Medical Council, it went over the same ground in the following year and ended with a resolution instructing the Registrar to ascertain what the licensing bodies thought of the recommendations and how far they had adopted them. To a certain extent, no doubt, the changes advocated by Dr. LATHAM have been adopted. But the reform is still incomplete. The testimony of the teacher to the work of

his students counts still for little or nothing in their examinations by the licensing authorities. Long and systematic courses of lectures still take up time which should be spent in practical and clinical work. Dr. LATHAM's caution against the tendency to cram too much undigested science into the medical student without reference to its use or applicability in medical problems deserves much attention. It may or it may not be an advantage that 50 per cent. of those who register as medical students at Cambridge never proceed to the degree of Bachelor of Medicine. But so large a defection goes far to raise doubts as to the system and to prove the justice of Dr. LATHAM's view that too much time may be spent by medical students over the preliminary sciences. The General Medical Council requires students to devote five years to medical study. Dr. LATHAM tells us that few at Cambridge take less than seven, and many eight years or more. It is highly probable that under such a system years spent in the earlier and preliminary subjects tend to exhaust a student's mind and to distract and unfit him for the real end of all his labours—that of acquainting himself practically with disease and all the devices of medicine and surgery for its relief. The practical and the scientific element in medical progress, as Dr. LATHAM shows, are equally essential. But it does not follow that they should be equally present in every member of the profession. It is impossible that they should be, and that is the most perfect medical education which includes as much of the scientific element as is necessary for eminently practical purposes.

Dr. TAYLOR's address, eloquent in tone and lofty in thought, cannot have failed to make an impress upon his audience. The young man who begins life, and especially medical life, without some reflections as to its meaning, its purposes, its risks, and its probable results to himself and others is not to be admired. We venture to believe that such young men are few and getting fewer. Modes of faith vary much in these days, but we all have the inward respect for character rather than intellect of which Dr. TAYLOR speaks, and we believe with him that it is character—the force and influence of right-mindedness—which determines true success. We are reluctant to see so much evil in modern society as Dr. TAYLOR sees, but we fear he has not exaggerated. Every medical student should read this address for his own sake and for the good to others which it may inspire him to do. If the nation is to be saved from the vices which proved fatal to older civilisations it will be largely due to the teachings of medical science—of those, to use Dr. TAYLOR's words, "who will be the doctors and advisers of the future generations and who may do much by steadily honouring and upholding higher ideals of individual, family, and national life to infuse a new and healthier spirit into the coming age." Dr. ARTHUR P. LUFF, in opening the school of the Pharmaceutical Society, of which he was a student 27 years ago, confined himself chiefly—as was natural—to an appreciation of the work of the Pharmaceutical Society. Most medical men will agree with him in thinking that there is a decline in the art of prescribing and of ordering suitable remedies for morbid conditions,

and will not differ from him in believing that the fact is partly due to the inadequate teaching of prescribing at the medical schools of so many of our large hospitals. The explanation of this is to be found in a decline of faith in the importance of drugs in the treatment of disease. The interesting subject of the obligations of a medical student to his hospital was handled by Mr. T. H. KELLOCK in his introductory address at the Middlesex Hospital, and he did not evade describing, if he did not altogether define, the duty of the hospital to guard against any abuse of its beneficent functions to the detriment of the very practitioners whom they educate. The fact that the use of drugs is imperfectly taught at our medical schools is a thing for teachers to ponder over—we cannot expect the hardly-worked students to insist upon more lectures. But students cannot learn too early the meaning of hospital charity. If they begin by appreciating the great work which goes on around them they are sure to fulfil their duties in a proper spirit.

### Peculiar Methods of Suicide.

THE subject of suicide presents many points of interest from a psychological standpoint. The question of whether or no the deceased was insane naturally stands foremost, but we do not intend to discuss this matter now; suffice it to say that there is a growing tendency for a coroner's jury to return a verdict of "Suicide during temporary insanity" rather than one of "*Felo de se*." In some instances there seems to have been a condition allied to "double consciousness," the person being sane shortly before and shortly after the act and yet unable to remember anything concerning the attempt on his life. For instance, a young woman jumped from the suspension bridge at Clifton and fell about 300 feet; her clothes acted as a sort of parachute and she was picked up alive and none the worse for the fall except for a few bruises. On being questioned she stated that she remembered nothing of her actions for some hours before she walked to the bridge and until she found herself in the infirmary. In other cases the act has apparently been due to some sudden, irresistible impulse for which no reason can be given.

It is well known that an insane person bent on taking his life will often adopt strange ways of carrying out the act and will wait an opportunity of adopting the measure which he has decided upon; thus a man has been known to swim across a river in order to throw himself under a train. Occasionally, however, most extraordinary methods have been chosen. In THE LANCET of Sept. 14th, 1901, we published a case of suicide in which the wounds were inflicted in the back of the neck, and in our issue of Sept. 28th, p. 876, we were reminded that we had described two similar cases some years before. More than one case is on record in which the entire larynx had been self-removed. One of the most extraordinary cases of this kind was recorded in the *Boston Medical and Surgical Journal* some 20 years ago, in which a man determined to guillotine himself. He constructed an apparatus by which a heavy axe-blade was held in place by a can of water. In the bottom of the can was a hole which allowed the water to run slowly out and when a certain amount had escaped the axe-blade was liberated.

The operator laid his head on some support, so that the axe would strike him on the neck, and placed a dish of ether in such a position that he would inhale it and so become unconscious before he was decapitated. The axe fell as he had intended. A strange attempt at suicide has been much quoted from our columns. A man placed the point of a dagger against the skull in the frontal region and then drove it into his brain by a blow from a mallet. The blade, which was four inches long, was driven in up to the hilt; but assistance came on the scene and the dagger was ultimately removed, the patient making a perfect recovery. A still more peculiar method of self-destruction was adopted by a man whose case was recorded in the *Medical Times and Gazette* in 1878. A man drove into his head two stone-chisels, each being eight and a quarter inches long and three-eighths of an inch in diameter, using for the purpose a wooden mallet weighing 2½ pounds. One of the chisels was driven through the head from right to left, entering in the right temporal region and emerging in the left nearly in a direct line; the other chisel was driven into the centre of the forehead, penetrating half an inch into the frontal lobe. After inflicting the injuries the man approached a glass door, through which he was seen by two persons. He tried to open the door but failed. When the door was broken open he walked a distance of 40 feet with but little aid, and was able to talk. The chisels were withdrawn with much difficulty and he died about five hours afterwards. In a case recorded in the *British Medical Journal* in 1881 by Mr. A. D. H. LEADMAN a man committed suicide by placing a dynamite cartridge in his mouth, lighting the fuse, and then awaiting the explosion. Great injury to the surrounding parts naturally ensued, but nevertheless the man lived two hours.

Drowning is a mode of suicide frequently resorted to both by men and women, but the mode of carrying out the act does not always consist in simply jumping or walking into the water. A case was recorded in THE LANCET of Sept. 1st, 1877, in which drowning was accomplished by simply plunging the head into a basin of soup, and in another instance a woman broke the ice on a pond, thrust her head through the hole, and so perished. Drowning may take place in quite shallow water. In many such cases death has been the result of accident, but Dr. DIXON MANN from his experiences considers that it is usually suicidal. Although homicide is frequently committed by throttling with the hands suicide in this way is, of course, exceedingly rare. A case, however, was recorded in the *Zeitschrift für Medicinische Beamte* of a woman, aged 40 years, who suffered from melancholia and who had previously made several attempts to commit suicide. She was found dead crouched in her bed with both hands compressing the throat; death had undoubtedly ensued from throttling. Death from strangulation by hanging is common, but sometimes a noose is used in a different way, the active strength of the suicide supplying the force that is usually supplied by his passive weight. An insane patient, upon whom Professor BOLLINGER<sup>1</sup> performed a necropsy, had succeeded in ending his life by strangulation of this sort.

<sup>1</sup> Friedrich's Blätter für Gerichtliche Medicin. Part I., 1889.

The body was found lying on the back with the right foot pressed against a bedpost. Round the neck was a loop-knot made of a bed-sheet torn in two, one end of which was attached to one of the bedposts. The deceased by pressing his foot against the opposite post had drawn the noose tight and so maintained it, thus bringing about strangulation.

Suicides occasionally select particularly painful means of ending their lives. For instance, in a case related by Mr. L. E. W. STEPHENS in the *Bristol Medico-Chirurgical Journal*, 1888, a man suffering from melancholia was seen with a red-hot iron rod about two feet in length, the cool end of which was against the wall and the heated end against his abdomen. He was interrupted in this attempt but not long afterwards he made the iron white-hot and succeeded in thrusting it four or five inches into the abdomen. In yet another case the dead body of a man with extensive burns was found lying on an iron bedstead. A burnt candle was beneath the bedstead. From papers in the room it appeared that the man wished to prove that suicides were not cowards, and he had adopted the following awful method of terminating his life in order to prove his theory. He had laid on the bed over the lighted candle, rising from time to time to record his sensations and then resuming his position on the bed. Many cases similar to the above, all of great medico-legal value as demonstrating what suicides may accomplish in the way of inflicting injuries upon themselves, are recorded. On superficial examination homicide may be suspected, whereas other evidence may conclusively prove the case to be one of suicide. Doubtful cases of this kind need the greatest care on the part of the examining practitioner, for on his evidence may depend in a great measure the verdict of the jury.

## Annotations.

"Ne quid nimis."

### LOOKING BACK.

THE occurrence this year of Oct. 5th, the date upon which THE LANCET made its first appearance, upon a Saturday has suggested to us that it may be interesting to our readers if we furnish to them from week to week, under the above heading, short extracts from the corresponding numbers of THE LANCET of 78 years ago. During that interval great changes have taken place and medical knowledge has advanced by leaps and bounds. In these ever busy days, however, it is good sometimes to pause awhile, to look back, and to consider the work of our forefathers and their views with regard to the profession and its place in the world. We cannot, perhaps, more fittingly commence "Looking Back" than with the Preface to the first number of THE LANCET, published on Sunday, Oct. 5th, 1823. We cannot say what the writer of those words would think of the present issue of the journal which he founded. But we venture to hope that his shade may view with some approbation the part that THE LANCET has played with regard to "acquirements in Medical learning." Although we fear we have not been successful in maintaining the exclusion of "the semibarbarous phraseology of the Schools,"

the rapid progress of medical science rendering such a course all but impossible, we have endeavoured to the best of our ability to cultivate "plain English diction." In one respect we must confess that THE LANCET has failed to keep to the promise of its Preface. The last paragraph says, "In conclusion—we respectfully observe, that our Columns will not be restricted to Medical intelligence, but on the contrary we shall be indefatigable in our exertions to render 'THE LANCET' a complete Chronicle of current Literature." In the course of 78 years Medicine has become an exacting mistress, claiming every inch of our space, notwithstanding the enormously increased size of the volumes. It will be noticed that the first number was issued on a *Sunday*; this continued to be the case up to and including the issue of Sunday, March 28th, 1824, after which Saturday became the day of publication. With these few words of explanation we refer our readers to "Looking Back" (p. 936).

### A MINISTRY OF PUBLIC HEALTH.

THE Eleventh International Congress of Hygiene is to meet next year at Brussels. As these congresses are the largest and the most representative and influential gatherings held for the purpose of pressing forward sanitary reforms it is but natural that urgent and practical proposals should be submitted to them. Among these proposals the desirableness of creating Ministries of Public Health has more than once been suggested. At most, if not at all, the International Congresses several speakers have urged that the care of the public health should not be relegated to a mere department of the Ministry of the Interior, or, as in England, to the Local Government Board, but that it should constitute a Ministry in itself with a responsible Minister of Public Health at its head. From time to time we have received various communications on this subject, and recently Dr. F. G. Bushnell, medical officer of the Plymouth Public Dispensary, has written to us protesting that in certain colonies and countries the organisation of the national public health services is more thorough than it is in England. This proves that the value of scientific measures for the protection of the health of the communities in question is well appreciated. The high character, Dr. Bushnell goes on to say, of the work of our medical officers of health emphasises the need for more systematic action in such matters as the appointment of county medical officers, and the improvement of the conditions of the tenure of office of district medical officers. Then there are the questions of State aid for the creation of sanatoria for the treatment of tuberculosis, of public health laboratories, and of organising popular education on the principles and methods of preventing disease, on the feeding and rearing of infants and on domestic hygiene. The powerful associations interested in public health matters, it is maintained, should unite to press upon the next International Congress of Hygiene the importance of the formation of a Ministry of Public Health. To all this we would add that mere suggestions, however excellent, do not suffice. Someone must take the initiative. A proposal which had previously been approved by several associations, or, better still, by a national congress, would have more weight than if it were brought forward by an individual member. It is also absolutely necessary that any movement to be followed by debate and resolutions at the International Congress should be presented in the proper manner. First, a paper must be written explaining the case, and this not merely from the British point of view but also from that of at least some other nationality. Then a summary, or, better still, the whole of the paper, should be translated into French and German, together with the resolutions to be

submitted to the Congress. Dr. Putzeys, delegate of the Belgian Government, who invited the next Congress to meet at Brussels, will probably act as the general secretary. By applying in good time the papers and the proposal to create in all countries Ministries of Public Health might be included among the official subjects of discussion, and the whole question might be submitted to the delegates before the Congress met. If so, the vote which would be subsequently recorded would have much more weight. Those who feel sufficiently earnest in the matter must take the necessary trouble to do this and not content themselves with the mere expression of a pious wish.

#### THE CAUSATION OF SLEEP: A THEORY.

A CORRESPONDENT writes to us suggesting a new theory as to the causation of sleep—namely, that a gland or certain glands in the system secrete a narcotic substance; that this substance is stored in the gland or glands until at definite times—mainly influenced by habit and “tiredness” of the individual—it is thrown into the circulation and thereby causes the phenomenon of sleep. Further, he suggests that sleep continues as long as the supply of the “natural narcotic” is kept up—until the latter is so far attenuated in, or wholly abstracted from, the blood by the excreting organs. As he truly suggests, however, no direct evidence of the correctness of this theory is yet to hand, but he refers to a lately discovered fact that the urine of health secreted in waking hours always contains a narcotic substance, and he urges this point in support of his theory. The existence of such glands is difficult to deny, but we cannot say that we think the theory a very plausible one, neither can we agree with our correspondent when he says: “It [the theory] has this one merit, at any rate—it can easily be put to the test in the laboratory.” In the Croonian Lectures for 1899 Professor J. B. Bradbury gave a most careful analysis of the various theories of the physiology of sleep which had hitherto been advanced and stated that owing to the differences of opinion of observers regarding the exact condition produced by hypnotic drugs, he found it impossible to draw a satisfactory conclusion regarding their mode of action or the cause of sleep. We are far, however, from wishing to detract from the merits of a theory because it has not been put to the test, but at the same time we are of opinion that our correspondent will find considerable difficulty in putting to the test his supposition of a natural hypnotic secreted from special glands. Sir T. Lauder Brunton has pointed out that opium will keep a person awake if he wishes to be wakeful, and conversely will make him sleep if he wishes to sleep, which would seem to show that sleep is in some measure under the control of the will.

#### REPORT ON THE PLAGUE AT GLASGOW.

WE are pleased to see that the Corporation of Glasgow have issued an illustrated volume containing the official report on the cases of plague which occurred in that city last year. This report has been prepared by Dr. A. K. Chalmers, the medical officer of health, on whom rested the responsibility of coping with the outbreak. Most of the information which this volume contains, as also the photographs of some of the cases, have already been published in these columns. It is nevertheless useful to have these details in a compact form, for they are thus more ready at hand for reference. There is also a “spot” map of the localities affected showing that the great majority of cases occurred in the poverty-stricken and overcrowded districts on the south side of the river Clyde. No one can have visited these wretched streets and habitations without being painfully impressed by the squalid, neglected, ragged, barefooted, and dirty appearance

of a large section of the population. It is well, under such circumstances, with typhus fever not yet eradicated and with plague still threatening, that the Corporation of Glasgow should have taken the initiative of convoking a Conference on the Housing of the Poor. After the warning conveyed by plague it is to be hoped that such action will not be limited to the discussion but that something really effective will be done to house in a more civilised manner the residuum of the population.

#### “THE RED BADGE OF COW-POX.”

A HUNDRED years ago, when Jenner's vaccination doctrine was being publicly preached against and opinion rose to an almost fanatical frenzy against the heinous novelty of inoculation, he would have been a daring prophet who foretold the day when the woes of a “vaccination arm” would be commonly regarded as a fit subject for jocular treatment. To-day that is to a large extent the aspect of the matter that appeals to people. There is, of course, the anti-vaccinationist who, like all faddists, is deficient in a sense of humour, just as he is deficient in the power to judge his subject fairly from a broad view of every side. For him reasonable argument is dulled by prejudice, and the written evidence of men who lived before and during the introduction of vaccination is no more convincing than the weight of logic. Happily, this class of blind disbeliever is much diminished, even as his cousin germane the conscientious objector will diminish before the diffusion of definite knowledge and the results of experience. A limited advent of small-pox such as we are now witnessing in London has, at any rate, this advantage, that it leads a large number of people to get definite information on the subject of vaccination and enables medical men to read a lesson to which at other times the public may turn a deaf or indifferent ear. The laziest or least curious individual becomes interested to know the truth about preventive measures when small-pox is next door. The general experience of practitioners at the present time, we may fairly believe, is that there is, despite the conscientious objector, a wide and growing tendency to familiarity with the *rationale* of vaccination; it is taken as a matter of course and even a joke is made of its inconveniences. That the inconveniences in the case of an adult who “takes well” are not to be disregarded many of our readers will doubtless be aware from painful personal experience. This side of the question appears to have appealed forcibly to members of the Stock Exchange who have been wearing a red band on the sleeve of the inoculated arm as a beacon to warn off the friendly grasp which under the circumstances becomes too painfully warm a salutation. Some men, less trusting in the powers of observation or restraint on the part of their fellows, have exercised their minds to find a site for vaccination which would be safe from jostling. The leg has thus been freely chosen in preference to the arm, but sometimes the disabilities of the two are nearly matched, as in the case of the pianoforte teacher who complained that if vaccinated on the arm she could not play with her pupils and if on the leg she could not reach them to play with. Of the objections to vaccination, other than conscientious, a most amusing treatise might be constructed, though we doubt whether it would contain many instances so wildly inconsequent as the asserted objection which reaches us from a country correspondent. He relates the remarks of a farm labourer who believed that vaccination would involve peculiar danger to his own children because their grandfather had been tossed by a bull. At any rate, this man had some vague notions of the connexion of cow-pox with vaccination. It may have been curious stories such as this which turned a paragraph writer in the *Globe* to vaccination

for a playful headline. "*Arma virusque cano*" he began, and explained that he was talking of arms and the vaccination mark! Among educated people, then, it may fairly be taken that vaccination is so generally accepted and familiar that even its inconveniences are a laughing matter. After the present augmented activity in vaccination we may hope that there will be few persons in Great Britain to whom its benefits are not obvious and by whom its defects will not be treated in this same spirit of pleasant contempt.

#### ANNUAL MEDICAL SERVICE AT ST. PAUL'S CATHEDRAL.

THE annual medical service at St. Paul's Cathedral organised by the Guild of St. Luke will take place this year on Thursday, Oct. 17th, the Eve of St. Luke, at 7.30 P.M. As in past years many members of the medical profession have signified their intention of attending in academical robes. The arrangements of the service this year have been considerably modified with a view to making it simpler and brighter. The sermon will be preached by the Rev. Canon Gore, and the music will be rendered by the London Choir Association, the choir being conducted by Dr. H. Walford Davies, organist of the Temple Church. Admission to the spaces under the dome will be by tickets only.

#### ROYAL VETERINARY COLLEGE.

THE introductory address to the students beginning their professional studies at this College was delivered by Professor E. M. Crookshank, the chair being taken by Mr. Albert Brassey, M.P. Professor Crookshank spoke very highly of the teaching and equipment of the college, of the advantages of the veterinary profession as a career, and of the value in many occupations of a veterinary training. He urged the necessity of the importance of original research in veterinary work, and as an illustration of the great need for further investigation he instanced the subject of tuberculosis. He reminded his hearers that at the recent Congress on Tuberculosis the relation of the bovine to the human malady was prominently brought forward in an address given by Professor Koch. It was instructive and encouraging to the veterinary profession that some of the researches which created so much interest at the congress were those undertaken in different veterinary colleges. Professor Koch's experiments had been carried out during the past two years with the coöperation of Professor Schutz at the Veterinary College of Berlin. Professor Crookshank then referred at some length to Professor Koch's experiments which led to the conclusion that human tuberculosis differed from bovine and could not be transmitted to cattle, and Professor Koch further announced that whether man was susceptible to bovine tuberculosis at all was not yet absolutely decided. Professor Crookshank agreed fully with Professor Koch that if infection to human beings occurred at all it was very rare, but he could not accept the statement that human tubercle could not be experimentally inoculated in bovines. He also felt very strongly that Professor Koch's dictum that preventive measures were not advisable was a singularly unfortunate one. It conveyed the impression, as Dr. Hueppe had pointed out, that Professor Koch would concede to dairymen and milk-sellers the right of selling tuberculous milk. Professor Crookshank felt justified in disagreeing with Professor Koch in these points because in the course of an inquiry in 1888 which he had conducted on behalf of the Board of Agriculture he made an experiment which proved that a healthy calf could be successfully inoculated with human tuberculous sputum. Other investigators in England and America had confirmed this result. Professor Crookshank was of opinion that human and bovine tuberculosis were distinct varieties of the same disease. Man was not the natural soil of bovine tuberculosis, and the attempts

to graft human tubercle in cattle would not be uniformly successful, and experiments which did not entail the direct insertion of the virus into the tissues might fail entirely. Another instance which proved that the different nature of the soil must always be taken into account was the variolation of cattle. There was the possibility that inasmuch as human tuberculous virus can be grafted on the cow there may also be instances of invasion of the human tissues with bovine bacilli, but Professor Crookshank was quite in agreement with Professor Koch that such an occurrence could only be quite exceptional. If it were the rule the inhabitants of every country in the world in which bovine tuberculosis was prevalent must have been decimated by tuberculous disease owing to the frequency with which tubercle bacilli occur in milk, cream, butter, and cheese, and the quantity of meat derived from tuberculous animals. Professor Crookshank then made some remarks on meat inspection and maintained that a carcass should be condemned when the disease was generalised; but if the carcass was well nourished and the meat healthy in appearance the existence of small local deposits of tubercle in the organs was not a sufficient reason for condemning the flesh as unfit for food.

#### HOP-PICKERS AND SMALL-POX.

ON Saturday last, Sept. 28th, Dr. G. Newman, medical officer of health of Finsbury, informed the medical officer of health of the County of London that certain cases of small-pox had been found among hop-pickers whose London home was in Finsbury and who had returned to London from Bodiam in Sussex. It was also stated that other persons at the farm where they had been employed had had eruptions similar to those found upon the persons who had returned, and that all of the hop-pickers employed on the farm would return on that day. Prompt measures were taken for medical men to meet the trains by which these people might arrive, the medical officers of the London County Council and of Finsbury and the chairman of the Sanitary Committee of Finsbury, Mr. Evan Jones, M.R.C.S. Eng., taking part in the work. All the hop-pickers arriving during the afternoon and evening at New Cross, London-bridge, Waterloo, Cannon-street, and Charing-cross stations were, as far as was practicable, examined, and the addresses of persons coming from the farm were taken. Five persons actually suffering from small-pox were detained by Mr. Evan Jones (who undertook to watch at Cannon-street station) and were sent to the hospital ships. As a piece of prompt action, rendered possible by the coöperation of the county and borough officers, we may speak with much satisfaction of the procedure adopted; and the fact that actual cases of small-pox were found among the travellers will justify to the most critical every step that was taken. The incident, however, serves to show how little anyone can reckon upon not being exposed to small-pox and how the only actual safeguard is to render each individual insusceptible to attack. Small-pox was not known to exist at Bodiam and the fellow travellers of the sufferers were certainly unconscious that their companions were suffering from this disease. It will be interesting to observe what effect the return of the hop-pickers to London has on the prevalence of the disease. It is too much to expect that no proportion of the people at Bodiam who were associated with the sufferers on the farm, and who travelled with them in crowded carriages to London are incubating small-pox. As far as it has been possible to do so the addresses of people coming from this farm have been ascertained, and where this has been done they will no doubt be kept under observation; but small-pox in the metropolis will in all probability receive some increment from this source and there is a chance that the disease will be carried into homes where the risk of spread will be especially

great. Whatever the result is there will be the satisfaction that every step was taken to limit the mischief as far as this could be done. Among the factors conducing to the spread of small-pox at the present time is the difficulty of distinguishing it from chicken-pox. It is stated that the disease among the hop-pickers on the Bodiam farm was regarded as chicken-pox and hence the circumstances of which we have given account. We note with satisfaction that the Borough Council of St. Pancras are proposing to require the notification of cases of chicken-pox, and the adoption of this course will, no doubt, go far in that district to meet the difficulty which we mention.

#### CHARACTERISTIC HEADACHE IN TUMOUR OF THE CEREBELLUM.

At the meeting of the Société Médicale des Hopitaux of Paris on June 14th M. Pierre Merklen pointed out that the headache of cerebellar tumour may be characteristic. He finds that the pain is principally occipital, but may be also frontal or occupy the whole head. At first it is intermittent, then it becomes continuous, but exacerbations, which may be excruciating, occur on exertion. Further, the headache is accompanied by rigidity of the neck and retraction of the head—an attitude which is assumed because every movement intensifies the pain. Finally, the headache is little influenced by drugs, but, curiously, is subject to temporary remissions under the influence of "suggestion"—of any new treatment, for example, or of isolation or any exercise of medical authority. The cause of the headache is intracranial tension from hydrocephalus of the ventricles. The tumour lying under the tentorium cerebelli compresses the veins of Galen and causes dropsy of the ventricles. Movements and efforts increase the intracranial tension and therefore the headache. The only treatment is removal of the tumour or palliative trephining. The following case confirms the preceding description and explanation. At the beginning of September, 1894, a man, aged 28 years, in good health, was suddenly seized for some minutes with pain in the forehead and nape of the neck. The pain returned every morning and was always provoked by exertion. In October the spleen was found to be enlarged and the meningeal streak could easily be produced. Meningeal tuberculosis was suspected, although there was no pyrexia or other symptom of the disease. In November there were violent paroxysms of headache on exertion and the patient held his head retracted. The idea of intracranial tumour was suggested by M. Brissaud, M. Raymond, and M. Rendu who saw the patient in consultation with M. Merklen, but the absence of other symptoms did not allow a definite diagnosis. One day the patient complained of violent pains in the abdomen. As he had become hysterical this symptom was thought to confirm the diagnosis of neurosis. Accordingly he was isolated in a hydropathic establishment. Great improvement took place in the first week, though the stiffness of the neck persisted. Then the paroxysms of pain recurred and were accompanied by vomiting. In January, 1895, they became more frequent and he would scarcely leave his bed. Apart from the paroxysms he complained of continuous occipital and frontal pain. At times his gait was like that of a drunken man. There were no ocular signs. He improved for a few days and returned to his home; then all the symptoms became aggravated and he threatened to commit suicide. Anodynes, including morphine, were useless and only inhalation of ether gave relief. On Feb. 23rd M. Terrier made a horse-shoe incision from the left ear to the occiput and trephined the skull. When the dura mater was opened by a crucial incision the brain bulged out. It was punctured with a needle, but no fluid escaped. The skin and periosteum were sutured, but the dura mater was not. Improvement was immediate and the patient was free from pain for

five days. Then he began to have pain in the trephined area. On March 3rd union of the wound was complete, but in the position of the cicatrix was a fluctuating swelling of the size of an egg. This enlarged and became distended until some liquid flowed away from it. Puncture gave exit to 250 grammes of clear fluid and the patient was relieved, but on the next day it was again distended and the vomiting and pain reappeared. On April 16th puncture gave exit to 500 grammes of cerebro-spinal fluid. From this date puncture was performed every other day. The patient wasted and always complained of pains in the temporal region and in the trephined area. On June 23rd he became comatose and died. The necropsy showed a tuberculous tumour of the size of a mandarin orange in the left lobe of the cerebellum. The swelling at the trephine opening was formed by a hernia of the dilated left lateral ventricle, the wall of which was very thin. M. Merklen, who insisted on the importance of *céphalée d'effort avec raideur de la nuque* as a sign of cerebellar tumour, referred to another case in which this sign proved diagnostic. He saw in consultation a man who for several months after a carriage accident suffered from vertigo and headache and who at last became somnolent. M. Merklen ascertained that the headache appeared on, and was intensified by, exertion and was accompanied by a rigidity of the neck. Operation showed a serous cyst of the cerebellum, the evacuation of which proved a radical cure.

#### AN INGENIOUS ADULTERATION.

ANYONE may adulterate butter, whether it be for his own consumption or for that of his neighbours, but if he deals in the adulterated article he must follow in so doing the conditions laid down in the Margarine Act—he must not sell it as butter and he must not, *a fortiori*, sell it as "pure butter." The firm of Pearks, Gunston, and Tee, Limited, who claim to have a very large number of places at which they sell their goods, were summoned in July last under the Sale of Food and Drugs Act for selling that which was not of the nature, substance, and quality of the article demanded by their customers; that is to say, for selling as butter a substance containing more than the 16 per cent. of moisture which is recognised as a lawful factor in the butter of honest commerce. They were further charged in other summonses under the Merchandise Marks Act with applying a false trade description to their goods. In July the full hearing of these summonses was adjourned owing to the defendants desiring to await and abide by an appeal then pending which has now apparently been decided adversely to them, for they have appeared again at the police-court and have been duly fined. The nature of the appeal we need not discuss, for the facts of the case against Messrs. Pearks, Gunston, and Tee, Limited, hardly seem to us capable of raising legal discussion; their methods, however, as described in July, were sufficiently ingenious to be worth recalling. It was their practice to purchase large quantities of colonial and foreign butter which, owing to the method of its preparation and the exigencies of its market, contains considerably less moisture than ordinary English butter, and into this they used to force milk by softening the butter and blending the two together in huge churns, adding a little borax in compensation as a preservative. It was stated before Mr. Curtis Bennett that by this process as much as 10 quarts of milk could be added to a hundredweight of butter, and a moment's calculation by those familiar with the weight of liquids will show that this means the increase of a hundredweight of butter by more than 20 pounds avoirdupois, with an addition of profit to the vendor equal to the difference between the price of the added milk and the price of a quantity of butter of

similar weight. We have only to assume, as we safely may, that the foreign butter purchased was considerably cheaper than pure butter made in England to see that the compounded article sold in pound and two-pound packets as "Pearks's Pure Butter" formed a highly profitable article of trade to its vendors. That the same substance may continue to be dealt in with profit in the future we do not gainsay, but it will have to be sold under a true description and not to those who ask for "butter," while we may be permitted to add a wish that the energy and ingenuity of merchants such as those mentioned could be devoted to the raising of the quality of English products rather than to lowering that of food substances produced with such exemplary skill and economy by our colonies and our foreign neighbours.

#### THE NEWLY-ELECTED LORD MAYOR OF LONDON.

THE election of London's chief magistrate does not often present any feature of notable instance from a medical point of view, but the ceremony of Sept. 28th, a ceremony transferred to the eve of the feast of Michaelmas on account of the feast itself falling on a Sunday, had especial interest to every member of our profession and a double interest to those who chance to be Etonians. For on Sept. 28th, 1901, Alderman Sir Joseph Cockfield Dimsdale was elected to fill the office of Lord Mayor of London for the ensuing year. Sir Joseph Dimsdale, who is the first Etonian to fill the civic chair for 130 years, comes of an old Essex family whose members have, as a rule, belonged to the Society of Friends and one of the most renowned of whom was Thomas Dimsdale, M.D., who was born in 1712, educated at St. Thomas's Hospital, and who, in 1767, published a book entitled "The Present Method of Inoculation for the Small-pox." This passed through many editions and in 1768 Dimsdale was invited to Russia by the Empress Catherine for the purpose of inoculating herself and her son, the Grand Duke Paul. There were ignorant persons in Russia in those days as there are now in this country, and in case of any untoward result the Empress had relays of post horses ready all the way from St. Petersburg to the frontier for the safe conveyance of Dimsdale out of the empire. Both patients, however, did well and Dimsdale received the honour of being made a baron and a councillor of State, together with a sum of £10,000 down, an annuity of £500, and £2000 for expenses. In 1784 Dimsdale was again summoned to Russia to inoculate the Grand Duke Alexander and his brother Constantine. Inoculation received its death blow on the introduction of vaccination, which brought about protection with far less risk, but it is interesting to note the election of a Dimsdale to the highest civic post in London at a time when the city is suffering from an outbreak of small-pox. We offer him our congratulations upon the honour to which he has been elected.

#### THE PATHOLOGY OF SPORADIC CRETINISM.

In the September number of the *American Journal of the Medical Sciences* Dr. Frederick A. Packhard and Dr. Alfred Hand of Philadelphia give an account of sporadic cretinism and endeavour to throw some light on the pathology of this obscure affection. The patient observed was a child six years of age who seemed to be weak-minded and undeveloped. He was admitted to hospital in December, 1897. There was nothing in the family history which had any bearing upon the case, and two other children born respectively before and after him were perfectly healthy. He grew very slowly and was weaned at the age of 20 months. When a few weeks old he had an attack of asphyxia and it was noted that the tongue was large and inclined to protrude. He was always intensely constipated, the bowels never moving more than

three times a week. At six years of age he was only 81 centimetres (32 inches) high, unable to talk or to understand what was said to him, and perfectly apathetic, lying back among the pillows and not moving except for an occasional slight rolling of the head. The skin was of a peculiar yellowish-white colour, the features were heavy and doughy, and the eyelids were thickened and half-closed. The tongue protruded from the mouth, completely filling the orifice of the lips and being very doughy to the touch. The scalp was almost completely devoid of hair and the anterior fontanelle was widely open and pulsating. The neck was large and full and at its base was surrounded by a thick collar-like mass of doughy consistence. "The face was distinctly pig-like and devoid of expression." The hands were pudgy and short, and the tissues of the arms felt as though they were the seat of solid œdema. The abdomen was quite "aldermanic," and there was a large umbilical hernia. The case was diagnosed as one of sporadic cretinism and placed on thyroid treatment (two grains of thyroid extract three times daily). During the second week improvement began to be noticed, and gradually he showed diminution of the collar of fat, and his general appearance and intelligence began to improve. His bowels also showed a greater tendency to move normally. Improvement continued for several months, and before October, 1898, he had begun to learn to talk and to understand much of what was said to him. His height had now increased by nine centimetres (three and a half inches), the anterior fontanelle was closed, the tongue was reduced in size and kept within the mouth, the abdomen was normal, and he laughed quite naturally. In November of that year he developed typhoid fever, the temperature rising to 104° or 105.5° F., with occasional elevations even higher. He became rapidly emaciated and died, "his powers of resistance being from the outset almost nil." The necropsy, performed three hours after death, showed a large and persistent thymus gland in the anterior mediastinum and extending upwards one and a half centimetres (three-fifths of an inch) into the neck. The liver was fatty. The Peyer's patches of the small intestine were ulcerated and in the superior cerebral sinus there was a yellow thrombus. Nothing important was noted in the brain except that the pituitary body was considerably enlarged, measuring 13 by seven by five millimetres. The thyroid acini showed deficiency of colloid secretion, and the liver showed a universal fatty degeneration of the parenchyma with foci of necrosis. A most peculiar feature was a calcareous degeneration of the thyroid arteries, a condition undescribed before. Dr. Packhard and Dr. Hand agree with Dr. Byrom Bramwell<sup>1</sup> on the efficacy of thyroid medication in these cases, and think it possible that a deficiency of thyroid secretion coupled with disease of the thyroid arteries constituted the basis of the disease.

#### SUDDEN DEATH FROM A CLOT ON THE RIGHT SIDE OF THE HEART.

In the present number of THE LANCET we publish a case of some interest, in which sudden death occurred a week after an amputation. The death was preceded by severe dyspnoea lasting five minutes, and not unnaturally a diagnosis of pulmonary embolism was made; but at the necropsy, although all the pulmonary arteries were laid open, no embolus could be discovered. In the right side of the heart, however, was found an ante mortem clot about four inches in length extending from the auricle to the ventricle. If this clot were certainly ante mortem in origin, its presence would serve to explain all the symptoms, for the interference with the action of the tricuspid valve and the consequent

<sup>1</sup> THE LANCET, Dec. 10th, 1898, p. 1547.

tricuspid regurgitation would produce dyspnoea, as but a small quantity of blood would be sent onwards through the pulmonary artery. It is not probable that the clot was formed *in situ*, but it is far more likely that it developed in the right auricle and that some disturbance had detached it and had placed it in the situation in which it was found. If this be the correct interpretation of the conditions discovered post mortem the case is certainly extremely rare.

#### THE HANBURY GOLD MEDAL.

THE Hanbury gold medal for 1901 was presented on Oct. 1st to Dr. George Watt by the President of the Pharmaceutical Society. This medal, which was established as a memorial to Daniel Hanbury, is awarded biennially for high excellence in the prosecution or promotion of original research in the chemistry and natural history of drugs, the Council of the Pharmaceutical Society being the trustees of the memorial fund. On the same occasion the prizes of the society were distributed and the inaugural sessional address was delivered by Dr. A. P. Luff. This address appears in another part of the current issue of THE LANCET.

#### THE PRESIDENTIAL ADDRESS AT THE FRENCH CONGRESS OF ALIENISTS AND NEUROLOGISTS.

DR. GILBERT BALLET delivered the Presidential Address at the French Congress of Alienists and Neurologists, held at Limoges on August 1st, touching briefly on past achievements and indicating the directions for future advancement. He referred to the need of more vigour in method and more precision and delicacy in technique for the advancement of psychological medicine. One of the greatest achievements of the closing decade of the nineteenth century was the definite emancipation of the studies of normal and diseased "mind" from the thralldom of metaphysics. The progress of clinico-pathological research and neurological technique served to accelerate the movement. The most ingenious speculations of Plato, Descartes, and Leibnitz were superseded by the study of the brain and nervous system after the clinical, histological, experimental, and pathological methods now in vogue, and more light was thus shed on the subject than had been done by the systematic and philosophic dissertations written hitherto. The brain has, however, not yet yielded to us all its secrets. There remain regions and "areas" of the cerebral cortex of whose functions we are ignorant, and the connexions of the various nerve-centres and tracts in the mesencephalon and bulbo-spinal cord are not as yet fully explored. Clinical and experimental studies have shown that microbic infection as well as intoxication with alcohol, lead, and other poisons are capable of producing various forms of myelitis and states of delirium and mental confusion, but we are still ignorant of the cause of disseminated sclerosis (*sclérose en plaques*). While the facts of heredity have been diligently studied and collected, and its laws formulated, little is known as regards predisposition, our knowledge in the latter respect being still in the empirical stage. Inquiry into the etiology of disease has revealed to us definite agencies productive of mental disorder, such as syphilis as a factor of general paralysis and of tabes, and it is clear that when the causation is well recognised preventive measures can be adopted and the mischievous results thus diminished. Even gout, diabetes, and affections of the same class play a part in the production of neuroses, but it is especially alcohol which is the most potent cause of nervous and mental disease, and in regard to which our efforts should be mainly directed to prophylaxis. Many persons have suggested that feeble and crippled children should not be permitted to live, but Dr. Ballet does not think that

modern nations would wish to imitate Sparta in their treatment of these little unfortunates. By diffusion of knowledge and by our efforts to instruct public authorities and the people on the causation of disease and on the mode of prevention of diseases at their sources much may yet be achieved. Our solicitude for the infirm and the insane is shown by our provision of public hospitals and asylums for their accommodation and treatment, but we should not aid them to propagate a feeble, effete, and degenerate offspring which becomes a burden and a menace to the resources of a state.

#### THE CLEANSING OF PUBLIC VEHICLES.

DR. ALFRED GREENWOOD, medical officer of health of Crewe, read a paper at the recent Congress of the Royal Institute of Public Health at Eastbourne on the Need for Legislation in the Disinfection and Cleansing of Railway Carriages, and has drawn attention to his views in the *Times*. Referring to a resolution which was passed at the above-named Congress to the effect "that the attention of the Government be called to the danger to public health caused by the lack of frequent wet cleansing and disinfecting of railway carriages, tramcars, and omnibuses," he suggests that a committee should be formed to investigate the subject, which would be able to prove that the dust in such vehicles may be infectious and that sufficient care is not exercised in cleansing them. The committee would also consider the practicability of the following suggestions: (1) the fixing of cautionary notices in all railway compartments; (2) the imposition of penalties for infringing this rule; (3) the construction of railway compartments in such a way that the cushions and flooring should be detachable and that the cushions should be made of a less pervious material than that used at present; and (4) the wet cleansing and disinfecting of all railway compartments at frequent and regular intervals. The foregoing regulations would equally apply to tramcars and omnibuses. We cordially endorse Dr. Greenwood's suggestions, and the question of over-crowding might also be raised. We believe that the education of the public as regards public hygiene and the prevention of tuberculosis can be more easily accomplished by such measures than by the costly and elaborate method of notification, that to be of service must be general and not voluntary. In America penalties are imposed for spitting, but we are doubtful whether the time has yet arrived for adopting similar measures in this country; an exception might be provided for in the case of those offenders who persist in expectorating upon the floors of public vehicles in spite of notices and warnings. Objection has been taken to the smell of some disinfectants, but now no such excuse can be made, since many such bodies—e.g., formaldehyde—are free from odour. Voluntary cleansing of public vehicles would not remedy the matter; the systematic and frequent wet cleansing of them should be a compulsory measure enforced by legislation.

#### SMALL-POX IN LONDON.

WE refer elsewhere to the thorough manner in which the cases of small-pox among returning hop-pickers were dealt with by the medical officers of the various municipal authorities of London. With regard to other cases, on Sept. 30th there were six fresh cases notified; on Oct. 1st there were eight fresh cases; and on Oct. 2nd there were six fresh cases. Despite the efforts of the anti-vaccinationists reports from various quarters of the metropolis show that vaccination and revaccination are being carried out. The London School Board and the health authorities of St. Pancras have managed to get into a deadlock which in presence of the epidemic is peculiarly unfortunate. It will be

remembered that the London School Board gave a qualified permission to inspectors to enter the schools for the purpose of inspecting the children. Of course, no school board should have the power to prevent the health authorities from inspecting the children or the buildings under their charge. The clerk to the St. Pancras Board of Guardians wrote to the London School Board asking for the necessary permission for the vaccination officers to enter. The School Board replied that the local sanitary authority was the "proper local authority" mentioned in the School Board's resolution.<sup>1</sup> The clerk to the guardians thereupon applied to Dr. Sykes, the medical officer of health of St. Pancras, who wrote to the School Board informing that body that he had applied to the board of guardians and thereby, to save time, made application for permission for the entrance of the vaccination officers. The School Board wrote back that the board of guardians were not the sanitary authority but that the borough council were. The clerk to the borough council has replied that he has no authority, and so the matter stands over until Oct. 16th when the next meeting of the borough council is to be held. St. Pancras, be it remembered, is the centre of the outbreak.

#### THE PERIOD OF PUBERTY IN RELATION TO DISORDERS AND ANOMALIES OF DEVELOPMENT.

In the *Journal of the American Medical Association* of Sept. 14th Dr. V. S. Christopher, Professor of Pediatrics at the Chicago College of Physicians and Surgeons, has published a lengthy article dealing with the relation of physical mal-development to the liability to disease at the period of puberty. The investigation included a total of 6259 children—viz., 2788 boys and 3471 girls—who were examined in the Chicago public schools and who were mainly the children of American parents in comfortable circumstances. The physical measurements included stature, height sitting, weight with ordinary indoor clothing, endurance as measured by the ergograph, strength of grip of the right and left hands, and the so-called "vital" or respiratory capacity. A number of tables of the data thus collected were constructed and many interesting facts were obtained. Thus, as regards the growth of children it was seen that in the case of boys the growth-rate slowed down from infancy up to the age of seven years, that from seven to nine years of age the rate was uniform, and that from nine to 12 years a period of quiescence of growth again took place. From 12 to 17 years, however, the growth-rate was rapid and accelerated. The curve of growth for girls shows a less well-marked quiescent period from nine to 11 years of age, while the acceleration of growth begins at the age of 11 years—i.e., a year earlier than boys—and is more rapid at first, but of shorter duration than in boys. It is therefore shown that there is an exaltation of the vital processes of growth at the period of puberty in both sexes, commencing at 11 years in girls and at 12 years in boys, and that this period of accelerated growth is preceded by a period of quiescence. From a minute study of the physical variations or departures from the normal occurring during the period of puberty, Dr. Christopher considers that "while puberty is a period of great exaltation of life processes it is also a period of great individualisation. It is a time when the weak fail and the able forge to the front." While mortality is low during the epoch of puberty morbidity, or the tendency to disease or disorder, is high, the principal ailments being neuroses, psychoses, neurasthenias, cardiopathies, deformities, and anæmias. If growth takes place with unusual rapidity the capacity of the nutritive and assimilative functions is so taxed that the boy or girl is "on the borderland of physical insolvency, and

any excessive voluntary expenditure of energy may be followed by morbid symptoms." A rapid and irregular pulse, a dilated heart, and neurasthenia with a tendency to stooping may thus be developed. In one case, that of a neurotic boy who increased in weight with great rapidity, an epileptic convulsion followed every instance of excessive exertion—e.g., a 20-mile bicycle ride or a violent game at baseball. He was practically free from convulsions so long as he refrained from unusual expenditure of energy. Heredity may assist in the production of the disorders or defects of this period, but nutrition and rest also play an important part in the process. Some deformities, such as round shoulders and scoliosis, are among the results which may occur. Manifestations of neurasthenia, fatigue, and cardiac dilatation require for their proper management rest and improvement in general bodily nutrition; and where stooping and round shoulders occur shoulder-braces may be employed in conjunction with carefully regulated gymnastics. Dr. Christopher concludes that special medical supervision should be maintained over boys and girls during puberty and any disorders or anomalies of growth corrected as early as possible.

#### THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Cape of Good Hope, received at the Colonial Office on Sept. 25th, states that for the week ending Sept. 21st the cases of plague throughout South Africa numbered 0. The deaths from plague numbered only 1, and that a native at Port Elizabeth. The area of infection remained unchanged. As regards the Mauritius a telegram from the Governor, received at the Colonial Office on Sept. 27th, states that for the week ending Sept. 26th there were 33 cases of plague and 23 deaths from plague. As regards plague in Egypt during the week ending Sept. 22nd 10 cases and 7 deaths from plague have been reported throughout Egypt as follows:—2 cases and 2 deaths from Port Said, 3 cases and 0 deaths from Alexandria, 3 cases and 3 deaths from Mit Ghamr, 2 cases and 2 deaths from Benha. 1 case and 1 death at Port Said and 1 case at Alexandria occurred among Europeans; the remaining cases and deaths all occurred among the native population of the different towns.

#### DANGEROUS PARAFFIN LAMPS.

The dangers of cheap paraffin lamps have been known to everyone for some years. We demonstrated very clearly in our Commission upon Dangerous Paraffin Lamps which appeared in THE LANCET of Jan. 4th, 1896, the risks to life which follow upon the use of lamps of certain faulty patterns. The Home Office and the Education Department have now drawn up a number of suggestions for the care and use of lamps. The Education Department have embodied the suggestions of the Home Office in a circular which has been forwarded to managers of elementary schools so that they may impress the suggestions on their scholars. The suggestions are as follows:—

1. The wick should quite fill the wick-tube, without having to be squeezed into it.
2. Before using, the wick should be dried at the fire and then immediately soaked with oil.
3. Wicks should be in lengths of not more than 10 inches and should always reach to the bottom of the oil-container.
4. It is well to change the wick after two months' use.
5. See that the chimney of the lamp fits properly and is held sufficiently tightly so as not to fall off when the lamp is used.
6. When a new wick or chimney is required it is always advisable to take the burner to the shop that it may be properly fitted.
7. The burner should be taken to pieces and thoroughly cleaned at least once a month, and all burnt pieces of wick, dead flies, dirt, &c., should be carefully removed.
8. Never re-fill the lamp when it is alight or near a fire or other light.
9. After filling see that the burner is properly fixed on, and if there is a side filling-hole be careful to screw in the plug.
10. Before lighting remove the burnt crust of the wick.
11. Be careful not to spill oil in filling and if any is spilt on the lamp to wipe it off.
12. Before lighting see that the slit in the cone of the burner is exactly over the wick-tube, so that the flame will not touch the metal.
13. When first lit the wick should be partially turned down and then

<sup>1</sup> THE LANCET, Sept. 28th, 1901, p. 859.

gradually raised, but not so as to smoke. When the edge of the flame is orange-coloured the lamp is not burning properly and the burner should be examined.

14. Do not continue to burn the oil until it is completely exhausted. It is best to keep the lamp well filled.

15. Lamps which have no extinguisher should be put out as follows:—The wick should be turned down until there is only a small flickering flame, care being taken not to turn down so far that the wick falls into the oil-container. The small flame may be extinguished by placing a piece of flat tin or card on the top of the chimney or by blowing across the top of the chimney. Never blow down the chimney.

16. Never use a lamp which is broken or in any way out of order, or a chimney which is cracked. If any part comes loose, or is out of shape, or defective it should be taken to a lamp shop to be repaired.

17. Always place the lamp in a secure place and on a level surface, and never on a rickety table or in any position where it could be easily upset. Hanging lamps should not be put on insecure nails in the wall.

18. Table lamps should not be carried about more than is necessary, and nothing else should be carried at the same time. Heavy lamps should be carried in both hands. The greater number of lamp accidents have been caused by dropping a lamp while it was being carried.

19. Lamps should not be turned down except for the purpose of putting them out. If turned low the oil is apt to be unduly heated.

20. Should a person's clothes become ignited the flames should be smothered with a hearthrug, blanket, woollen tablecloth, or wet towel.

21. Never pour oil on a fire.

These suggestions are all excellent, but the most important recommendation of all has been omitted, namely:—

No lamp should be used in which the container is made of glass, china, or any fragile material.

Yet another point should be more brought out than it is in the circular, and that is that the wick-holder, if movable, should fit tightly either by screw or bayonet-joint.

#### INTERNATIONAL CONGRESS OF PHYSIOLOGISTS: TRIBUTE TO SIR MICHAEL FOSTER, K.C.B., M.P., SECRETARY OF THE ROYAL SOCIETY.

As we have already announced a unique tribute of international esteem was paid to Sir Michael Foster by the members of the Fifth International Congress of Physiologists assembled at Turin in unanimously electing him to the office of Honorary Perpetual President of the Congress. In commemoration of this event a plaque bearing a suitable inscription was presented to Sir Michael Foster on Sept. 18th, at a special meeting of the Congress. Sir Michael Foster was one of the most active of the original founders of the Congress and it is due mainly to his energy that another important international association, the International Association of Academies, which has taken over part of the work of the Physiological Congress, has been established. The tribute is therefore a well-merited one. In connexion with the Congress at Turin the definite establishment of two other important international institutions was announced—one for the control and unification of physiological and clinical recording instruments and the other for the observance of the physiological and therapeutical effects of life at high altitudes. The latter has been erected on the summit of Monte Rosa with the aid of funds supplied by the Dowager Queen Margherita of Italy. The former has been granted separate housing by the Municipality of Paris in the Parc au Princes in that city. Both institutions will be placed under the control of the International Association of Academies. At the concluding general meeting of the Congress held on Saturday, Sept. 21st, it was unanimously resolved that the next Congress should be held at Brussels in 1904, under the Presidency of Professor Heger.

We commend to the notice of our readers an address delivered by General Ian Hamilton to the students of St. Thomas's Hospital Medical School on Wednesday last, on the occasion of the annual prize-giving. If the re-constituted Royal Army Medical Corps is greeted in such a spirit by other distinguished combatant officers its popularity will be much increased. An abstract of the address will be found on p. 933.

MR. WILLIAM WALDORF ASTOR has sent to the chairman of the National Society for the Prevention of Cruelty to

Children a cheque for £10,000, which sum is to form the nucleus of a fund for the acquisition of premises adequate for the transaction of the society's business.

THE Gresham Lectures in Medicine will be delivered in Gresham College, Basinghall-street, London, E.C., on Oct. 8th, 9th, 10th, and 11th, at six o'clock, by Dr. Symes Thompson, Gresham Professor of Medicine, who has taken for his subject "The Tuberculosis Congress."

WE have received the report of Mr. Brodrick's Committee upon the Army and Indian Nursing Service. The *personnel* of the Committee is the same as that which has had the Army Medical Service under consideration.

THE usual demonstrations of cases at the National Hospital for the Paralysed and Epileptic, which had been discontinued owing to the recent difficulties, will be resumed on Tuesday, Oct. 8th, at 3.30.

THE new buildings of the Post-Graduate College at the West London Hospital will be opened on Oct. 14th at 5 P.M., when an address will be delivered by Sir William Mac Cormac.

#### REORGANISATION OF THE ARMY MEDICAL SERVICES.

WE have received for publication the Report of Mr. Brodrick's Committee appointed to consider the Reorganisation of the Army Medical Services. The Committee consisted of the following members:—Mr. Brodrick, M.P. (chairman), Colonel Sir Edward Ward, K.C.B., Permanent Under-Secretary for War (vice-chairman), Major-General Sir G. de C. Morton, Colonel Sir James Willcocks, Sir Frederick Treves, Sir William Thomson, Surgeon-General Hooper, I.M.S., Lieutenant-Colonel A. Keogh, R.A.M.C., Mr. G. H. Makins, Mr. A. D. Fripp, Dr. H. Tooth, Professor A. Ogston, and Dr. E. C. Perry, with Major H. E. R. James, R.A.M.C., as secretary. The report of the Committee is as follows:—

#### SCHEME FOR THE REORGANISATION OF THE ARMY MEDICAL SERVICES.

##### ADVISORY BOARD.

1. The Royal Army Medical Corps shall be under the supervision of a Board to be termed the Advisory Board for Army Medical Services and constituted as follows:—

The Director-General, A.M.S., Chairman.

The Deputy-Director-General, A.M.S., Vice-Chairman.

One officer, Royal Army Medical Corps, with special knowledge of sanitation.

One officer, Royal Army Medical Corps, with special knowledge of tropical diseases.

Two civilian physicians appointed by the Crown on the recommendation of the Secretary of State.

Two civilian surgeons appointed by the Crown on the recommendation of the Secretary of State.

One representative of the War Office appointed by the Secretary of State.

One representative of the India Office appointed by the Secretary of State for India.

The Matron-in-Chief, Queen Alexandra's Imperial Military Nursing Service (for nursing service only).

2. To be eligible for appointment upon the Advisory Board a civilian physician or surgeon shall be required to hold or to have recently held a post on the acting staff of a leading civil hospital in England, Wales, Scotland, or Ireland, and to be not more than 55 years of age upon first appointment.

3. A civilian physician or surgeon upon the Advisory Board shall hold office for a period of three years, renewable upon expiration of the term of his appointment, but subject to the proviso that he shall vacate his seat on the Board upon

attaining the age of 60 years. He shall receive an honorarium of £200 per annum in addition to his out-of-pocket expenses for duties performed beyond a radius of four miles from Charing Cross.

4. The Advisory Board shall usually meet at fortnightly intervals, and the necessary quorum for the transaction of business shall be the Chairman (or in his absence the Vice-Chairman) and two other members of the Board, of whom one must be a civilian. The Chairman (or in his absence the Vice-Chairman) shall have the right to vote, and, in case of an equality of votes, shall have a casting vote.

5. The Advisory Board shall report to the Secretary of State upon all matters concerned with medicine, surgery, sanitation, and epidemic diseases as they affect the military services.

6. The Board shall advise the Secretary of State upon the adequate provision of hospitals and upon the equipment of the same in full detail; upon the supply of drugs, appliances, diets, and medical comforts to the patients; and generally upon whatever concerns the well-being of the sick and wounded.

7. The Board shall prepare and submit to the Secretary of State a scheme for the expansion of the Service to meet the needs of war or serious epidemics, such scheme dealing with questions of ambulance and transport, the equipment of all medical units at the base and front and on the lines of communication, the supply of drugs and medical comforts, the employment in the Service of civilian surgeons, nurses, and orderlies, and the utilisation of all voluntary effort for the relief of the sick and wounded.

8. The Board shall have submitted to it, and shall report to the Secretary of State upon, all plans for new hospitals and upon standard plans for barracks and standing camps.

9. It shall be the duty of the Board to draw up a list of civil hospitals recognised as places of study for members of the Royal Army Medical Corps.

10. The Board shall also draw up a list of hospitals and nurse-training schools recognised for the purposes of the Queen Alexandra's Imperial Military Nursing Service.

11. The Board shall arrange, so far as practicable, for the annual inspection of each of the military hospitals by a Sub-Committee consisting of at least one military and one civilian member of the Board, such inspection to be usually made without notice.

12. This Sub-Committee shall ascertain and report to the Board whether the treatment of patients and the equipment of hospitals inspected be in accordance with modern medical and surgical requirements.

13. The Board may, with the permission of the Secretary of State, detail specially qualified officers of the Royal Army Medical Corps or others to visit and report upon the army medical services of foreign countries.

14. The promotion of officers or their retention in the Service will be referred to the Board for consideration before submission by the Director-General to the Commander-in-Chief.

15. The Board shall supervise the admission of candidates to the Royal Army Medical Corps, and shall arrange for the examination of officers for promotion, appointing examiners and recommending to the Secretary of State the amount of their remuneration, regard being had as heretofore to the English, Welsh, Scotch, and Irish medical schools. Except as specified in paragraph 25, examinations shall be held every six months at dates to be fixed by the Advisory Board. Examiners shall be appointed annually by the Advisory Board, but no examiner shall serve continuously for a longer period than four years. A member of the Advisory Board shall not be appointed examiner.

16. The Board shall exercise a general control over the nursing service, and, in consultation with the Nursing Board, shall submit to the Secretary of State a scheme to develop the training of orderlies as attendants upon the sick and wounded.

#### DIRECTOR-GENERAL.

17. The Director-General shall be appointed by the Secretary of State on the recommendation of the Commander-in-Chief, acting with the advice of the Advisory Board, and shall hold office for five years.

18. The Director-General shall be responsible for the administration of the Army Medical Service, the Militia Medical Staff Corps, the Militia Reserve trained in medical duties, and the Volunteer Medical Staff Corps. He shall be

responsible for the distribution, promotion, discipline, and general organisation of these services.

19. After reference to the Advisory Board as defined in paragraph 14, the Director-General shall bring forward to the Commander-in-Chief the names of officers whom he may judge worthy of promotion.

20. The Director-General, in concert with the Advisory Board, shall draw up a scheme for the due provision of medical aid for the Auxiliary Forces, Militia, Yeomanry, and Volunteers.

#### CANDIDATE AND LIEUTENANT ON PROBATION.

21. A candidate for admission to the Royal Army Medical Corps shall be a British subject of unmixed European blood, not more than 28 years of age, and shall possess a registrable qualification to practise. He shall produce a certificate of birth or other satisfactory proof of age, and shall furnish to the Advisory Board such evidence as may be required regarding character, conduct, professional ability, and fitness to hold a commission in the corps. Special importance shall be attached to a confidential report to be requested by the Board from the dean or other authority of the school in which the candidate has completed his course as a medical student.

22. Subject to such arrangements as may hereafter be made, opportunities will be given for civilian surgeons over age, who have served with troops in the field, to enter the corps. Special marks, on a scale to be fixed by the Advisory Board, shall be granted to candidates who have performed medical duties with troops on active service.

23. A candidate, having fulfilled the above requirements, shall be directed to appear before the Advisory Board, who will decide whether he may be allowed to compete for a commission in His Majesty's Army.

24. After having been medically examined the candidate shall be submitted to a clinical and practical examination in medicine and surgery, the scope of which shall be defined by the Advisory Board.

25. Having gained a place in this Entrance Examination, the successful candidate shall be appointed Lieutenant on probation, and shall proceed to Netley (until other arrangements have been made) for a two-months' course of instruction in hygiene and bacteriology, after which he shall be examined in these subjects. He will then proceed to Aldershot, where he will undergo a three-months' course of instruction in the following subjects:—

Stretcher and ambulance drill.

Interior economy.

Military law and hospital management.

On the completion of the course he shall be examined in these subjects. The marks gained at both these examinations (provided they are not less than the 50 per cent. requisite to qualify), added to those at the entrance examination, shall decide his position on the seniority list of the corps, and he will thereupon be confirmed in his appointment as Lieutenant. The mark ratio of each of these minor examinations to the entrance examination shall be as 1 to 8.

26. A Lieutenant on probation who fails to obtain the qualifying percentage of marks in either of these minor examinations shall be allowed a second trial at the termination of six months from entrance to the Service, and should he qualify will be placed at the bottom of the list. If, however, he should again fail in either examination, his appointment will not be confirmed, and he will leave the Service.

27. Should a candidate pass the entrance examination, the Royal Army Medical Corps whilst holding a resident appointment in a recognised civil hospital, or be appointed thereto at such a date as will permit him to take up his duties immediately after he has passed the entrance examination for the Royal Army Medical Corps, he shall be seconded for the period of such appointment not exceeding one year, receiving, however, during such period no pay from army funds, but counting his service towards pension or gratuity.

28. A Lieutenant, on completion of his course of instruction, will be attached for duty to a battalion, regiment, or other unit, but while thus attached will also be detailed for duty in a station hospital; but this provision shall not entitle any unit to claim that a medical officer should be attached thereto.

29. At the end of three years from the confirmation of his appointment as Lieutenant he will be permitted to retire,

or if, in the opinion of the Advisory Board (based on the reports received from his principal medical officer and the commanding officer of the unit to which he has been attached), his service has been satisfactory, he will be allowed by the Secretary of State to adopt one of the following courses:—

(a.) To continue in the Service.

(b.) To engage for a period of seven years in the Reserve of Officers, receiving a sum of £25 per annum while so serving. An officer who has been in the reserve for a period of not less than one year or more than three years may be permitted by the Secretary of State on the report of the Advisory Board to return to the active list, and if replaced on the active list he shall be allowed to count one-third of his service in the reserve towards promotion, pension, or gratuity.

30. Should the officer elect to continue in the Service he shall be attached for a period of six months to a recognised hospital in a centre where he has opportunities of gaining further professional knowledge by attendance at a course or courses of instruction in a civil hospital, or otherwise, as may be approved by the Advisory Board.

31. At the end of six months of such instruction he shall present himself for examination in medicine; surgery; hygiene and sanitation; and bacteriology and tropical diseases. In this examination the relative value of the subjects expressed in marks shall be as follows:—

Medicine, 100; surgery, 100; hygiene and sanitation, 70; bacteriology and tropical diseases, 50.

The percentage of the total number of marks necessary to obtain distinction shall be as follows:—

Special certificate of excellence	...	85 per cent.
1st class	...	80 "
2nd "	...	70 "
3rd "	...	60 "

The qualifying mark in each subject shall be 40 per cent.

32. On the results of this examination an acceleration of promotion may be granted at the discretion of the Secretary of State, provided that the officer's conduct has been satisfactory, in accordance with the following scale:—

Class in examination.	Acceleration of promotion.
Special certificate of excellence	18 months.
1st class	12 "
2nd "	6 "
3rd "	3 "

33. An officer who does not reach the qualifying mark in each subject shall be considered as having failed to pass the examination and shall be placed on a supernumerary list for a period not exceeding six months, when he shall be required again to present himself for examination in all subjects, and if he fail a second time he shall be compulsorily retired. Service on the supernumerary list shall not count for pension, increase of pay, or promotion.

#### CAPTAIN.

34. When an officer has passed the examination specified in paragraph 31 he shall be promoted Captain, and shall undergo a short course of instruction in field hospital work, bearer company drill, or allied subjects approved by the Advisory Board, and on the conclusion of the course he shall be posted to such station and duty as the Director-General may order.

35. On the conclusion of six years' service as Captain, subject to such acceleration as he may have obtained under paragraph 32, an officer shall be allowed by the Secretary of State to adopt one of the following courses:—

(a.) To retire with a gratuity of £1000.

(b.) To continue in the Service.

36. Should he elect to continue in the Service, an officer, between his ninth and twelfth year of service (subject to such acceleration as he may have obtained under paragraph 32), shall be attached to a selected hospital at one of the military centres, so as to enable him to attend the practice of a recognised civil hospital for a period of six months, at the end of which period he will be required to present himself for examination in the following subjects:—

Medicine; surgery; hygiene and sanitation; bacteriology and tropical diseases; military law, administration and interior economy; and one special subject

from the subjoined list of optional subjects, to which additions may from time to time be made by the Advisory Board:—

Bacteriology, including the preparation of anti-toxins.

Dental surgery.

Dermatology.

Fevers.

Laryngology.

Midwifery and gynaecology.

Operative surgery (advanced).

Ophthalmology.

Otology.

Pædiatrics.

Psychological medicine.

Skiagraphy.

37. In this examination the relative value of the subjects expressed in marks shall be as follows:—

Medicine, 100; surgery, 100; hygiene and sanitation, 100; bacteriology and tropical diseases, 100; military law, administration and interior economy, 100; special subject, 100.

The percentage of the total number of marks necessary to obtain distinction shall be as follows:—

Special certificate of excellence	...	85 per cent.
1st class	...	80 "
2nd "	...	70 "
3rd "	...	60 "

The qualifying mark in each subject shall be 40 per cent.

38. On the results of this examination an acceleration of promotion may be granted at the discretion of the Secretary of State, provided that the officer's conduct has been satisfactory, in accordance with the following scale:—

Class in examination.	Acceleration of promotion.
Special certificate	18 months.
1st class	12 "
2nd "	6 "
3rd "	3 "

39. An officer who does not reach the qualifying mark in each subject shall be considered as having failed to pass the examination, and shall be placed on a supernumerary list for a period not exceeding six months, when he shall be required again to present himself for examination in all subjects, and if he fail a second time he shall be compulsorily retired. Service on the supernumerary list shall not count for pension, increase of pay, or promotion.

40. An officer who in the opinion of the Advisory Board has been prevented by the exigencies of the Service, or by other very special circumstances, from presenting himself for examination as required in paragraphs 31 and 36, may be provisionally promoted, subject to his passing the prescribed examination at the first available opportunity.

41. In order to encourage the study of the special subjects enumerated in paragraph 36, appointments shall be made in each army corps and in such other places at home and abroad as may be approved of by the Secretary of State, of officers below the rank of Lieutenant-Colonel who shall receive specialist pay according to the rate given in the Appendix. To be qualified for appointment as specialist, an officer must have gained at least 70 per cent. of the marks in the special subject taken in the examination mentioned in paragraph 36. Specialists may also be appointed in Public Health, if they have first qualified by obtaining a diploma recognised for registration by the General Medical Council.

No officer shall hold more than one specialist appointment at the same time.

42. In case of an officer desiring to engage in advanced professional study, it shall be open to the Advisory Board to recommend that special leave be granted him for a period of six months.

#### MAJOR.

43. An officer, having completed 12 years' service (subject to such acceleration as he may have obtained under paragraphs 32 and 38), and having passed the necessary examination, shall be promoted Major, and shall continue to serve in that rank under the following conditions:—

(a.) After three years' service from the date of his promotion to the rank of Major, he shall be granted a higher rate of pay (see Appendix).

(b.) At the conclusion of three years from the date of his advancement to the higher grade (making six years in the rank), he shall, if his service has been satisfactory, be allowed by the Secretary of State to adopt one of the following alternatives:—

(i.) To retire on a gratuity of £2500 (see Appendix).

(ii.) To continue in the Service.

44. Should he elect to continue in the Service, he shall, before he has completed 20 years' service (subject to such acceleration as he may have obtained under paragraphs 32 and 38), be granted three months' study leave, and at the end of that time be required to undergo a qualifying examination for promotion to the rank of Lieutenant-Colonel, in the following subjects:—

- (1.) Hospital organisation, administration, and equipment in peace and war, including the disposal of the sick and wounded.
- (2.) Organisation, administration, and equipment in war of all medical units in the field and on the lines of communication.
- (3.) The sanitation of towns, camps, troop-transports, and all places likely to be occupied by troops in peace and war.
- (4.) Epidemiology and management of epidemics, and the relations of civil law as regards infectious diseases.
- (5.) The medical history of important modern campaigns.
- (6.) The administration, command, and discipline of the Royal Army Medical Corps, and of other persons who may come under the jurisdiction of an officer of the corps.
- (7.) The duties of all ranks in the Royal Army Medical Corps.
- (8.) Recruiting and invaliding, including a knowledge of civil law as it affects lunatics in the Service.
- (9.) The relations of the medical to all other branches of the Army as defined by the various codes of regulations in force.
- (10.) The Army Medical Services of other Powers.

45. Should an officer fail to obtain 50 per cent. of the total number of marks, he will be allowed, after an interval of six months and before he has completed his twentieth year of actual service, to present himself again for examination. Should he fail a second time, he will be compulsorily retired on a gratuity of £2500, or he may, by special permission of the Secretary of State, complete 20 years' service and then retire on a pension.

46. Promotion to the rank of Lieutenant-Colonel will be by selection from among those officers who have passed the qualifying examination, and who have completed 20 years' service, subject to such acceleration as he may have obtained under paragraphs 32 and 38. If not selected for promotion within 12 months from the completion of 20 years' actual service, an officer will be permitted to remain on the pay of a Major until he completes 25 years' service, subject to acceleration, when he will be compulsorily retired on the pension of his rank (see Article 527, Royal Warrant).

#### HIGHER RANKS, HOSPITALS, &c.

47. During his service as Lieutenant-Colonel an officer may be selected for a higher rate of pay under Article 362, Royal Warrant for Pay and Promotion, which rate he will retain until promotion to the rank of Colonel.

48. The promotion to the rank of Colonel and Surgeon-General shall be by selection. Service in India shall not be necessary for promotion to either rank.

49. Medical officers shall be eligible for brevet promotion in the Royal Army Medical Corps in the same manner as officers in the other branches of the Service; and such promotion may be given either for distinguished service in the field or for distinguished service of an exceptional nature other than in the field.

50. Junior medical officers shall be gazetted directly to the regiments of the Household Brigade, and shall not be attached to them from the Royal Army Medical Corps as at present.

51. By special authority of the Secretary of State medical officers of the Household Brigade may be appointed Colonels in the Royal Army Medical Corps if they have complied with the conditions laid down in Article 362, Royal Warrant for Pay and Promotion, or as a reward for exceptional merit on active service.

52. When an officer is in charge of a hospital he shall receive charge pay at the rate specified in the Appendix.

53. The appointment to the charge of certain selected station hospitals, to be hereafter specified by the Advisory Board, shall be for a term of not less than three years.

54. With the exception of officers attached to units, appointments to a district shall, unless broken by a tour of foreign service, be for a term of two years.

55. Should it be necessary to move an officer from his station for other than temporary duty at an earlier date, a report of the circumstances shall be forwarded by the principal medical officer of the army corps to the Director-General.

56. The principal medical officer in each army corps and in each district shall be the staff officer of the general officer commanding for all medical and sanitary services, and shall be responsible to him for the administration of all hospitals and medical stores.

57. The principal medical officer shall deal with all matters in his district, and shall only refer to the Advisory Board in cases of serious doubt or difficulty.

58. Every army corps shall have a completely equipped bearer company and field hospital and a proportion of other medical field units at its headquarters, in order that the officers and men of the Royal Army Medical Corps may receive instruction and gain practical experience in the performance of field duties.

59. With the view of reducing the number of slight cases of illness in hospital, and thus providing accommodation for those of a serious nature, convalescent homes shall be established in each district to which soldiers recovering from severe illness may be sent. These homes, which are intended for men who are so far recovered as to be able to dispense with the services of nurses, shall be visited daily by a medical officer.

60. Medical officers in charge of units shall be instructed to retain in barracks cases of injury or illness of a trivial character, which are likely only to interfere for a few days with the soldier's performance of his duties.

61. For the reception of such cases a barrack-room shall be set aside, when available, in which they will be attended by the medical officer in charge of the unit. The medical officer will, however, as far as possible, treat light cases of illness as out-patients.

62. In small stations where no military hospitals are available arrangements may be made with the authorities of the local civil hospital for the admission thereto of cases requiring treatment as in-patients.

63. With the view of relieving the pressure of clerical work now experienced by the officers and men of the Royal Army Medical Corps, the Secretary of State has directed that steps shall be taken to simplify the returns rendered by medical officers and the forms of accounts used in hospitals.

64. Consulting physicians and surgeons from the acting staff of recognised civil hospitals shall be appointed by the Advisory Board to attend when required at military hospitals at such times as may be desired by the medical officers in charge. Members of the Advisory Board shall not be eligible for appointment as consulting physicians or surgeons.

65. In order that opportunities for instruction and special advice may be obtained, serious cases will be concentrated whenever practicable in the larger military hospitals—e.g., Woolwich, Millbank.

66. The Committee is strongly of opinion that the establishment of a military hospital and medical staff college for the training of officers of the Royal Army Medical Corps would very materially conduce to the efficiency of army medical service. It recommends that immediate steps be taken by the Advisory Board to present a detailed scheme for the establishment of such a hospital and staff college for the consideration of the Secretary of State.

ST. JOHN BRODRICK.

E. W. D. WARD.

G. DE C. MORTON, Major-General.

JAMES WILLCOCKS, Colonel.

FREDERICK TREVES.

\* WILLIAM THOMSON.

W. R. HOOPER, Surgeon-General.

G. H. MAKINS.

HOWARD TOOTH.

ALFRED D. FRIPP.

ALFRED KEOGH, Lieut.-Colonel, R.A.M.C.

\* ALEX. OGSTON.

E. C. PERRY.

H. E. R. JAMES, Major, R.A.M.C., Secretary.

\* Subject to remarks printed below.

## Exceptions by Sir William Thomson, C.B.—

1. Having regard to the important functions and powers of the civilian members of the Advisory Board, as set out in the report, I am strongly of opinion that it should be composed of representatives of the medical schools in the several divisions of the kingdom.

The sum proposed to be paid would practically exclude other than London teachers, although 70 per cent. of the medical officers come from schools outside England.

2. It is inadvisable to fix an age limit for civilians on appointment.

This is not done in the case of the other representatives.

The Secretary of State for War can always protect himself in this regard when making selections.

WILLIAM THOMSON.

## Exceptions by Professor A. Ogston—

I consider that the scheme falls short of what is requisite among other things in the following matters, viz. :—

1. It does not provide for the formation of a sanitary corps, consisting of officers specially charged with the duty of carrying out proper sanitary measures in peace and war, and a staff of men trained to ensure the requisite measures being carried into effect.
2. It does not provide such study leave as the advancing state of medical science now demands, and is likely in the future to demand even more, nor such liberal privileges in this direction as have been found necessary in the armies of other great European Powers.
3. It makes no provision for placing at the disposal of the many medical officers serving in remote and isolated stations abroad such information as will enable them to familiarise themselves with the advances of medical science, and as is called for in the interests of those who are placed under their care.
4. It fails to provide for medical officers being trained by attendance upon civilian patients in all the branches of their profession, so that they may become equally skilful with their civilian brethren and may avoid the narrowing influences which act so injuriously upon medical officers who have to deal only with the treatment of soldiers and military officials.

ALEX. OGSTON.

## APPENDIX.

## PROPOSED RATES OF PAY, &amp;C., FOR MEDICAL OFFICERS.

	Pay per annum.	Allowances, servants, lodging, fuel, and light.	Total.
	£ s. d.	£ s. d.	£ s. d.
Lieutenant on Probation and Lieutenant ... ..	250 0 0	73 10 0	323 10 0
Captain, i.e., after three years' service ... ..	287 0 0	92 15 2	379 15 2
Captain, after seven years' total service ... ..	307 4 10	92 15 2	400 0 0
Captain, after 10 years' total service ... ..	385 0 0	92 15 2	477 15 2
Major, i.e., after 12 years' total service ... ..	430 0 0	157 12 10	587 12 10
Major, after three years' service as such ... ..	475 0 0	157 12 10	632 12 10
Lieutenant-Colonel, i.e., after 20 years' service ... ..	547 0 0	166 15 4	713 15 4
Lieutenant-Colonel, selected under paragraph 362 of the Royal Warrant (establishment of 50) ... ..	638 0 0	166 15 4	804 15 4
Colonel ... ..	730 0 0	233 10 10	963 10 10
Surgeon-General ... ..	Consolidated		1500 0 0
Director-General ... ..	—		2000 0 0

The pay of officers of the Royal Army Medical Corps below the rank of Major while serving in India shall be

increased so as to bear the same ratio to the above rates for non-Indian service as at present exists.

## CHARGE PAY (see paragraph 52).

	s.	d.
Hospitals of 300 beds or more ... ..	10	0 per diem.
" 200 " ... ..	7	6 "
" 100 " ... ..	5	0 "
" 50 " ... ..	2	6 "

## SPECIALIST PAY (see paragraph 41).

In public health and in any subject mentioned in paragraph 36, 2s. 6d. per diem.

## RETIRED PAY AND GRATUITIES.

As already existing, with the following exceptions (see paragraphs 29 and 35):—

Pay on the reserve, £25 per annum.

Gratuity after nine years' service, £1000; £2500 after 18 years' service.

## THE NEW SCHEME FOR THE ROYAL ARMY MEDICAL CORPS.

MAJOR-GENERAL SIR IAN HAMILTON, K.C.B., speaking at the distribution of prizes at St. Thomas's Hospital on Oct. 2nd, said that war was a great test of character. Amidst the intensely artificial surroundings of modern civilisation anyone might live with a man or woman for years and not find out what he or she really was. How could anyone tell if even his nearest friend was greedy or self-denying when there was no real lack of provender whereby to put the question to the test? During a siege he had seen an insufficiency of food passed round six men and when the plate came to the fifth man there was already nothing on it. Soldiers who had seen a certain amount of service recognised the genuine article amongst those who had served with them at such periods, and it was because he was one of those who had seen doctors in the field that he was there that day.

What he principally wished to speak about was with regard to the new scheme for the reorganisation of the Royal Army Medical Corps. Since the old days of regimental doctors the Royal Army Medical Corps had survived, but only just survived, innumerable vicissitudes. Through all of them the heart of the organisation had beat sound, but difficulties and unpleasantnesses had, on the whole, so predominated that the men who had risked all and entered the service had shown by that action alone that they possessed good hearts and sanguine dispositions. It had been objected, perhaps not without reason, by that enthusiastic military reforming organ the *Morning Post*, that the public had been favoured with no preliminary remarks setting forth the objects which the Committee had in view. He would now state these objects, not authoritatively, but to the best of his belief. The objects were:—

1. To retain as much of the existing system as was good and to substitute for that which was bad certain fundamental principles upon which the genius of civil and medical administration could construct.
2. To offer to the medical profession itself the power to produce such a system of medical aid in peace and war as would bring to the soldier all the benefits which modern science provided for his civil brother.
3. To offer to the military physician, the military surgeon, and the military sanitarian the fullest opportunities of perfecting themselves in their various crafts.
4. Generally the revivification of a corps which in matters purely professional had fallen upon evil times.

The scheme should be read well between its lines and, recollecting that it was but a framework, its scientific possibilities in sympathetic hands would be understood. There would come the rub—the hands must be sympathetic and kindly, and not only the hands of the War Office but those of the Government of India. There was something not in this scheme which could not, indeed, find a place in any scheme. It was something which characterised the medical profession perhaps above all other professions. The highest ambition of the scientific man was to be able to do something for science, and he thought that the scheme afforded opportunities of adding to the store of knowledge now being

accumulated. The officer of the Royal Army Medical Corps would be able in the future to take that place in the scientific world which was open to all comers who were worthy of it. He would have to begin at the beginning, which in England now, as in China, invariably meant an examination. Examinations being the national craze of the moment, it was really too much to expect that the scheme should not have a succession of examinations as one of its features. He detested the present style of examination as much as any student; all he would say for the scheme in this connexion was that the endeavour seemed to have been to make these tests as little harmful as possible to the brain, character, and physique of the victims. Instead of the present extensive entrance examination in the medical and kindred sciences there would be in the future clinical and practical examinations designed to select the best all-round practical men, men who had profited most from their ward and laboratory work. Such an examination would, it was hoped, encourage the experienced and advanced student and debar the inexperienced, merely bookish, person possessed of a crammed superficial knowledge which evaporated in the twinkling of an eye, "like a snowflake on a river, one moment seen, then lost for ever," the moment being the period of the examination, when it dazzled with its transient gleam the spectacled orbs of the crabbed examiner. As military secretary he was supposed to be primarily responsible for the education of the young combatant officers, and he would be proud if at the close of his tenure he could say that he had done something to approximate the class of examination undergone by them to that now proposed for the medical department.

Once the examination had been negotiated there would be higher pay to start with and higher pay all along the line to look forward to. Not only, indeed, was higher pay to be granted all round, but charge pay would be granted for charge of hospitals, it having been little short of a scandal that under what might now be called the late system a young officer should have had to spend money out of his own pocket if he wished to have his hospital arrangements properly up to the mark. All this would now be put right by the handsome charge allowance which would be granted. It would be observed that there would be examinations for each step in rank on the same principle as other branches of the service. The examination *plus* the preliminary courses would be of such a practical nature that opportunities for distinction by capable, as distinguished from merely clever, men would be obtainable. These distinctions were not empty ones; they carried with them the solid advantages of special promotion on a fixed scale. It would be noted also that advancement without examination or for war service was also provided for. The idea was that responsibility and reward should hereafter be given in commensurate proportion with capability and not merely upon seniority. The Royal Army Medical Corps had persistently asked for study leave and had not got it; they had asked for bread and had been offered red facings. The authorities had now repented and in their repentance meant to go one better. They were going to make their officers take study leave *volens volens*, only they were not going to let them study the female form divine in ball-rooms, or the grouse disease in Aberdeen, or broken arms and legs with the Ward Union of Dublin. But they would concentrate them at centres where their studies would be supervised and directed. Thus not only would the young officers benefit by getting real instead of sham study, but Lord Roberts, through his staff, would get to know his men and their qualifications, which might possibly tend to prevent for the future a bacteriologist being detailed to cut off arms and legs and a brilliant surgeon having to investigate the intermarriages and banquets of bacilli.

Finally, in this connexion he knew they were glad for the sake of the army and its health that the military hospitals were to be in future equipped in every way so as to rival the best hospitals in the world; also that the scientific apparatus so necessary for successful treatment of disease would be liberally provided. All these were vast changes, some of them fundamental in their character, but a greater one still was perhaps to be found in the fact that for the first time eminent members of the civil medical profession would be given a voice in the direction of the fortunes and conduct of the Royal Army Medical Corps. The wisdom of this might be questioned by the timid, but he himself held that it was far more important for the corps to stand shoulder-to-shoulder and arm-in-arm with their civilian brethren than it was for them to be picked military

officials. He hoped he had said nothing to deter any of those present from coming to the army. Their representatives had many warm friends in the combatant ranks, friends who got more numerous and stronger as the war gave more and more prominence to the splendid devotion of the Royal Army Medical Corps.

## THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

### THE ELECTION OF DIRECT REPRESENTATIVES.

THE following is the text of Dr. GLOVER's election address:—

#### FELLOW PRACTITIONERS OF ENGLAND AND WALES,—

In offering myself again for re-election as one of your Direct Representatives on the General Medical Council I have two duties to discharge. I have to thank you, as I do most heartily, for a long period of confidence and support on your part, shown in three elections. And I have to explain the principles on which I have endeavoured to act as your Representative on the General Council of Medical Education and Registration, and to which I shall adhere in the event of your again electing me. The recent address which I delivered at Cheltenham and my action for years in the Council make it unnecessary for me to do more than very briefly indicate my views.

Firstly, I have endeavoured to the best of my ability, in respect of medical education, to make it, above all things, clinical and practical, basing it on as high a standard of preliminary education as the state of our general education will permit.

Secondly, I have laboured to maintain the purity of the Register, and while not lightly using the disciplinary power of the Council have not hesitated to apply it in the case of those who knowingly and persistently violate those traditions of the profession which are necessary for its honour and for the protection of the public.

Thirdly, in regard to legislation to regulate the work of midwives, I have kept in view the following objects:—

- (a) Stopping the practice of "Sarah Gamps"—as we stop the sale of poisons.
- (b) Limiting the practice of midwives to simple cases and placing them under strict compulsion to call for the assistance of regular medical practitioners on the occurrence of any irregularity or abnormality in mother or child.
- (c) Providing in respect of the training and certification of the work of midwives a board to do with the sanction of law what is now done without legal authority by the Obstetrical Society of London and by other more or less irregular bodies.
- (d) As midwives are not medical practitioners and can only safely work under the supervision of such practitioners I can only support legislation for recognising them on condition that it secures the above objects by making the Midwives Board to consist chiefly of medical men and subjecting its regulations to the approval of the General Medical Council.

Fourthly, I have consistently supported motions for an increase in the number of Direct Representatives in the Council, and I should support any reasonable proposals for reducing the size of the Council.

Fifthly, the Medical Council consists predominantly of the representatives of 20 or more qualifying bodies, these bodies having their own functions and responsibilities. It is very creditable to the Council and the bodies that so little friction has hitherto arisen between them and it. At present the best friends of medical education see with concern and regret a sharp difference between the Royal Colleges of England and the Council. I shall only say here that while ready to support the just claims of the Council to the loyal support of the individual bodies, I am in favour of avoiding any course which necessitates a reference to the Privy Council, which by law has the last word in any dispute between the Medical Council and the individual examining bodies, believing it to be in the interest of the Council and of the profession to settle differences without such reference.

Sixthly, I am strongly in favour of the formation of a

Conciliation Board to remove friction between the medical profession and the friendly societies, to improve the position of the medical officers, and gradually to raise the conception of the value of medical service to the working-classes. As acting chairman of a committee on these subjects I have been much impressed with the disposition of the leaders of the friendly societies to meet the just complaints of the medical profession, and I may add that the same impression has been made on my colleagues in the Medical Council and on the Committee of the Council of the British Medical Association. It will be a misfortune if the tendency in some quarters to disparage this movement should receive any sanction at the coming election of Direct Representatives.

Seventhly, the finances of the Council require the consideration of its members, the expenditure of late years having largely exceeded the income. Serious proposals have been made for raising a huge income for the Council by a yearly registration fee. I am strongly opposed to such a suggestion and believe it to be unnecessary. The difficulty, in my judgment, is to be met rather by reducing the expenditure of the Council in obvious ways than by exacting what would be an annual tax from the profession. Medical politics may seem unimportant to many practitioners. The large abstention of voters in past elections of Direct Representatives gives some colour to that impression. But medical politics deeply affect the welfare and reputation of the profession and are entitled to the consideration of all who are in any way responsible for the composition of the Medical Council.

Such are the views on which I have acted as the Direct Representative of the practitioners of England and Wales on the General Medical Council. Though conscious of many errors and defects I appeal with some confidence to the broad and generous judgment of the profession, and remain your obedient servant,

JAMES GREY GLOVER, M.D.

25, Highbury-place, N.

## FEMALE INSPECTORS OF WORKSHOPS.

IN a report for the nine weeks ending Sept. 14th presented to the Sanitary Committee Dr. William Collingridge, medical officer of health of the City of London, states that a house-to-house inspection of workshops in the City "shows that women only were employed in 39 per cent. of the workshops, while no less than 72 per cent. of the total number of workers employed in these houses were women." It is obvious, he says, that there are many questions in connexion with the sanitary surroundings of female workers in factories that can only be properly investigated by one of their own sex; "moreover, the Legislature has of late years insisted upon the observance of many regulations in places where women are engaged which men are ill-fitted to conveniently control." Dr. Collingridge therefore recommends that the Sanitary Committee should immediately appoint at least one female inspector whose duties should be entirely separate from those of the male officers and strictly confined to visiting those establishments where women are employed. Any question involving structural alterations or drainage work would be dealt with by the sanitary inspector of the district. A woman charged with these duties should hold a statutory qualification as a sanitary inspector and should be duly appointed as such under the Public Health (London) Act, 1891, for the purpose of acquiring the right of entry and power to serve preliminary notices and sign certificates. He remarks incidentally that such officers have been appointed by the metropolitan boroughs of Kensington, St. Pancras, Islington, Hackney, Southwark (St. George the Martyr), and Battersea, as well as by the provincial towns of Nottingham, Salford, Birmingham, Liverpool, and Sheffield. In continuation of this subject Dr. Collingridge mentions that last June a workshop where three women were employed was found to be without separate closet accommodation. When served with a notice in accordance with the Act the owner dismissed the only actual woman worker, but questioned the right to compel the provision of accommodation for the two other women who were not constantly employed upon the premises. The Home Office inspector, however, contends that separate accommodation should still be provided, relying upon the case of Bennet

v. Harding, in which it was held that stables with a stable-yard were "a work-place" within the meaning of Section 38 of the Public Health (London) Act, 1891, and that the cab-drivers were "in attendance" there, although they were there as customers, and that sanitary conveniences must be provided for them. The owner of the workshop where the three women were employed now states that his landlord will not provide for the necessary arrangements being made and that he may be compelled to dismiss both his clerk and collector in order that the law may not be infringed. Another case of a similar character has occurred in the same sanitary district; the landlords said that the necessary alterations would be too expensive and the tenants were therefore compelled to discharge two female employées.

## THE FIFTH INTERNATIONAL CONGRESS OF PHYSIOLOGISTS.

HELD AT TURIN, SEPT. 17TH-21ST, 1901.

THE following are notes of some of the communications made to the above Congress:—

### *Motor Areas of the Anthropoid Brain.*

Professor C. S. SHERRINGTON, F.R.S., and Dr. A. S. GRÜNBAUM described experiments performed on the brains of 10 chimpanzees, one orang, and one gorilla, which yielded results differing in several important points from those hitherto accepted. The brains were excited by a unipolar method, one electrode being placed round the animal's fore limb and the other applied to the area under observation. The same strength of current was able to provoke movement in the brains of the cat, rhesus, and chimpanzee. They therefore concluded that no stronger current was required for the higher brain than for the lower, contrary to what had been supposed by Horsley and Beever in the case of the orang. No movements whatever were obtainable from excitation of the posterior central (ascending parietal) convolution. The motor region was wholly situated in front of the fissure of Rolando and was mainly found on the ascending frontal convolution, the aspect of this convolution which looked into the fissure of Rolando being also excitable. The order of "centres" from below upwards on the ascending frontal convolution was face and head first, then neck, shoulder, arm, thorax, abdomen, and leg. The leg area lay on the inner or sagittal face of the convolution. The differentiation of areas was very exact and no inexcitable zones were found between. The fissure of Rolando showed two well-known distinct bends—the upper and the lower genu. The neck area lay precisely opposite the lower bend and the trunk area opposite the upper. Strictly circumscribed ablation of the arm or leg areas gave rise to accurately limited paralyses in the limbs in question which disappeared in about five weeks. No paralysis followed removal of considerable portions of the ascending parietal convolution. The degeneration which followed removal of the arm area was traced down the cord as far as the middle of the thoracic segment. In the cervical region in addition to degeneration in the crossed pyramidal tract a well-defined degeneration was seen in the antero-mesial zone of the same side. The higher monkeys resembled man, therefore, in possessing a homolateral pyramidal tract. Degeneration from destruction of the leg area passed down to the upper part of the lumbar enlargement, but no alteration was seen in the homolateral pyramidal tract after this lesion. Similar results were obtained from all the brains of the higher apes examined. Professor Sherrington and Dr. Grünbaum then instituted comparisons with those of the rhesus and callithrix monkeys and found that in these animals likewise no movement was obtainable with ordinary strengths of current from excitation of the ascending parietal convolution. They supposed, therefore, that such movements as had previously been observed by other investigators must have been due to the employment of currents strong enough to spread forward to the ascending frontal convolution. An attempt was made to bring one of the chimpanzees operated upon to the Congress, but unfortunately the animal died *en route*.

### *Intraocular Section of the Optic Nerve in the Rabbit.*

Dr. G. MARENGHI (Padua) exhibited a rabbit on whom he

had performed the above operation. Previous observers had divided the nerve within the orbital cavity and had invariably obtained dilatation of the pupil with total loss of reflex constriction to light. This result Dr. Marengi attributed to unavoidable injury caused to other nerves, as well as vascular disturbances inseparable from the intra-orbital method of operation. In the animal exhibited a distinct but slow reflex constriction of the pupil on exposure of the eye to light was present. This was found in all the animals experimented upon. Even weak light produced an effect. The reaction was to be explained by supposing the existence in the higher animals, as had been proved for the lower, of a peripheral reflex mechanism. Nerve-cells in all probability existed in the retina whose protoplasmic processes were sensitive to light, while their neurons were in some way connected with intrinsic ocular muscles. This latter question was, however, the subject of further observations.

*Excision of the Superior Cervical Ganglion of the Sympathetic.*

Professor LANGENDORFF (Rostock) related two instances in which he had succeeded in removing or cutting out of activity the above ganglion and which were followed by restoration of the sympathetic ocular paths. The animals employed were cats, and in one instance the ganglion was circumscribed by tightly drawn ligatures; in the other it was wholly removed. In the latter instance the paralysis had almost completely disappeared at the end of 105 days, but returned in the most obvious manner after section of the sympathetic nerve in the middle of the neck. Moreover, stimulation of the upper segment of the divided nerve yielded all the eye effects of excitation of the normal nerve, including dilatation of the pupil and enlargement of the palpebral fissure. No regeneration of the ganglion cells could have taken place, and Professor Langendorff supposed that the regenerated pre-ganglionic fibres must have made their way past the superior cervical ganglion to the muscular end organs, possibly finding more peripherally situated nerve-cells on their path around which they arborised.

*On Left-Handedness.*

Professor OSAWA (Tokio) found that many animals exhibited marked right- or left-handedness. Monkeys as a rule were either right-handed or ambidextrous, a very small number only being left-handed. Birds which used their claws for the purpose of holding food nearly always employed the left foot. The cause of right- or left-handedness in man was therefore to be sought, not alone in the study of the development of mankind, but much more in that of the lower animals.

**ENTRANCE SCHOLARSHIPS AND CERTIFICATES.—**

At Guy's Hospital Medical School the following entrance scholarships and certificates have been awarded:—Senior Science Scholarship for university students, £50, Mr. A. F. Hertz, Magdalen College, Oxford; and certificates to Mr. W. M. Mollison, King's College, Cambridge; and Mr. E. C. Hughes, Clare College, Cambridge. Junior Scholarships in Science: Mr. P. S. Mills, Dulwich College, and Mr. W. H. Trethowan, Plymouth Technical School and Guy's Hospital, £105 each; and a certificate to Mr. C. M. Wenyon, University College, London. Entrance Scholarships in Arts: £100, Mr. C. Mayer; £50, Mr. M. J. Rattray, King's School, Bruton, Somerset; and certificates to Mr. T. E. A. Carr, Lancing College, Sussex, and Mr. K. J. Saunders, Clifton College.—At the London Hospital Medical College the following entrance scholarships have been awarded:—Price Scholarship in Science, value £120, Mr. J. Owen; Price Scholarship in Anatomy and Physiology (open to students of Oxford and Cambridge only), value £60, Mr. Theo. Thompson; Entrance Science Scholarship, value £60, Mr. A. H. Pollard; Entrance Science Scholarship, value £35, Mr. E. H. R. Harris; Epsom Scholarship, value £126, Mr. S. H. Scott.—At St. Thomas's Hospital Medical School the Entrance Scholarship in National Science of the value of £150 has been awarded to Harold Beckwith Whitehouse, and the University Scholarship, of the value of £50, to George Rammell Footner, B.A., of Pembroke College, Cambridge.—At the Charing-Cross Hospital Medical School the following entrance scholarships have been awarded: Epsom scholarship (121 guineas), Mr. Edward H. Hugo; Mr. W. W. D. Chilcott, 60 guineas; Mr. W. K. Beaman, 55 guineas; Mr. B. W. Cherrett, 40 guineas; Mr. A. C. Bartlett, 30 guineas; and Mr. G. W. Rogers a Universities Exhibition of 30 guineas.

# Looking Back.<sup>1</sup>

FROM

THE LANCET, SUNDAY, OCTOBER 5, 1823.

## PREFACE.

It has long been a subject of surprise and regret, that in this extensive and intelligent community there has not hitherto existed a work that would convey to the Public, and to distant Practitioners as well as to Students in Medicine and Surgery, reports of the Metropolitan Hospital Lectures.

Having for a considerable time past observed the great and increasing inquiries for such information, in a department of science so pre-eminently useful, we have been induced to offer to public notice a work calculated, as we conceive, to supply in the most ample manner, whatever is valuable in these important branches of knowledge;—and as the Lectures of Sir Astley Cooper, on the theory and practice of Surgery, are probably the best of the kind delivered in Europe, we have commenced our undertaking with the introductory Address of that distinguished professor, given in the theatre of St. Thomas's Hospital on Wednesday evening last. The Course will be rendered complete in subsequent Numbers.

In addition to Lectures, we purpose giving under the head, Medical and Surgical Intelligence, a correct description of all the important Cases that may occur, whether in England or on any part of the civilized Continent.

Although it is not intended to give graphic representations with each Number, yet, we have made such arrangements with the most experienced surgical draughtsmen, as will enable us occasionally to do so, and in a manner, we trust, calculated to give universal satisfaction.

The great advantages derivable from information of this description, will, we hope, be sufficiently obvious to every one in the least degree conversant with medical knowledge; any arguments, therefore, to prove these are unnecessary, and we content ourselves by merely showing in what directions their utility will be most active: To the Medical and Surgical Practitioners of this city, whose avocations prevent their personal attendance of the hospitals—To Country Practitioners, whose remoteness from the headquarters, as it were, of scientific knowledge, leaves them almost without the means of ascertaining its progress—To the numerous classes of Students, whether here or in distant universities—To Colonial Practitioners—And, finally, to every individual in these realms. Consequently, we shall exclude from our pages the semibarbarous phraseology of the Schools, and adopt as its substitute plain English diction. In this attempt, we are well aware that we shall be assailed by much *interested* opposition. But, notwithstanding this, we will fearlessly discharge our duty. We hope the age of "*Mental Delusion*" has passed, and that mystery and concealment will no longer be encouraged. Indeed, we trust that mystery and ignorance will shortly be considered synonymous. Ceremonies, and signs, have now lost their charms; hieroglyphics, and gilded serpents, their power to deceive. But for these, it would have been impossible to imagine how it has happened that medical and dietetical knowledge, of all others the most calculated to benefit Man, should have been by him the most neglected. He studies with the greatest attention and assiduity the constitutions of his horses and his dogs, and learns all their peculiarities; whilst of the nature of his own he is wholly uninformed, and equally unskilled as regards his

<sup>1</sup> See Annotation, page 922.

infant offspring. Yet, a little reflection and application would enable him to avert from himself and family half the constitutional disorders that afflict society; and in addition to these advantages, his acquirements in Medical learning would furnish him with a test by which he could detect and expose the impositions of ignorant practitioners.

In conclusion—we respectfully observe, that our Columns will not be restricted to Medical intelligence, but on the contrary we shall be indefatigable in our exertions to render "THE LANCET" a complete Chronicle of current Literature.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6519 births and 3676 deaths were registered during the week ending Sept. 28th. The annual rate of mortality in these towns, which had been 19.4, 18.3, and 16.8 per 1000 in the three preceding weeks, further declined last week to 16.7. In London the death-rate was 15.0 per 1000, while it averaged 17.9 in the 32 large provincial towns. The lowest death-rates in these towns were 9.6 in Leicester, 10.5 in Croydon, 12.5 in Bradford, 12.8 in Derby, and 12.9 in Cardiff; the highest rates were 21.6 in Birmingham, 22.7 in Gateshead, 25.6 in Newcastle, and 27.3 in Sunderland. The 3676 deaths in these towns last week included 634 which were referred to the principal zymotic diseases, against 1253, 970, and 733 in the three preceding weeks; of these, 378 resulted from diarrhoeal diseases, 82 from diphtheria, 65 from "fever" (principally enteric), 37 from whooping-cough, 34 from measles, 33 from scarlet fever, and five from small-pox. The lowest death-rates from these diseases were recorded in Portsmouth, Plymouth, Halifax, and Bradford; and the highest rates in West Ham, Wolverhampton, Oldham, Hull, Sunderland, and Gateshead. The greatest proportional mortality from measles occurred in Oldham; from whooping-cough in Sunderland; from "fever" in Huddersfield, Hull, and Sunderland; and from diarrhoeal diseases in Wolverhampton, Oldham, Hull, Sunderland, and Gateshead. The mortality from scarlet fever showed no marked excess in any of the large towns. The 82 deaths from diphtheria in these towns included 34 in London, 10 in West Ham, five in Bristol, five in Liverpool, five in Manchester, and four in Bolton. Five fatal cases of small-pox were registered in London, but not one in any other of the 33 large towns. There were 163 small-pox patients under treatment in the Metropolitan Asylums hospitals on Saturday, Sept. 28th, against numbers increasing from 11 to 153 on the seven preceding Saturdays; 44 new cases were admitted during the week, against 31, 62, and 37 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2994, 3064, and 3098 on the three preceding Saturdays, had further risen to 3151 at the end of last week; 460 new cases were admitted during the week, against 346, 457, and 427 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 116 and 124 in the two preceding weeks, further rose last week to 137, but were 50 below the corrected average. The causes of 39, or 1.1 per cent., of the deaths in the 33 towns last week were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Nottingham, Salford, Bradford, Leeds, and in 13 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Preston, and Sheffield.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17.8, 17.5, and 16.2 per 1000 in the three preceding weeks, further declined to 16.0 per 1000 during the week ending Sept. 28th, and was 0.7 below the mean death-rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 12.4 in Paisley and 14.1 in Leith to 18.3 in Greenock and 18.7 in Dundee. The 509 deaths in these towns last week included 42 which were referred to diarrhoea, 12 to measles seven to whooping-cough, seven to "fever," four

to scarlet fever, and one to diphtheria. In all, 73 deaths resulted from these principal zymotic diseases, against 74 and 83 in the two preceding weeks. These 73 deaths were equal to an annual rate of 2.3 per 1000, which was 0.6 below the mean death-rate last week from the same diseases in the 33 large English towns. The fatal cases of diarrhoea, which had been 38 and 53 in the two preceding weeks, declined again last week to 42, of which 22 occurred in Glasgow, seven in Aberdeen, five in Edinburgh, four in Leith, two in Dundee, and two in Greenock. The deaths from measles, which had declined from 12 to five in the four preceding weeks, rose again to 12 last week, and included 11 in Glasgow. The fatal cases of whooping-cough, which had been 10 and 13 in the two preceding weeks, declined again last week to seven, of which three were registered in Glasgow and three in Edinburgh. The deaths referred to different forms of "fever," which had been 12 and six in the two preceding weeks, rose again to seven last week, and included three in Paisley and two in Glasgow. The fatal cases of scarlet fever, which had been five, three, and two in the three preceding weeks, increased again last week to four, of which three occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 79 and 59 in the two preceding weeks, rose again last week to 101, and slightly exceeded the number in the corresponding period of last year. The causes of 12, or more than 2 per cent., of the deaths in these eight towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 22.2 and 23.4 per 1000 in the two preceding weeks, declined again to 17.8 during the week ending Sept. 28th. During the 13 weeks of the quarter ending on that date the death-rate averaged 21.1 per 1000, the rates during the same period being 17.1 in London and 17.2 in Edinburgh. The 128 deaths of persons belonging to Dublin registered during the week under notice were 40 below the number in the preceding week, and included 17 which were referred to the principal zymotic diseases, against 35, 25, and 30 in the three preceding weeks; of these, 12 resulted from diarrhoeal diseases, three from "fever," one from scarlet fever, and one from whooping-cough. These 17 deaths were equal to an annual rate of 2.4 per 1000, the zymotic death-rates during the same period being 2.1 in London and 1.5 in Edinburgh. The deaths referred to diarrhoeal diseases, which had been 30, 22, and 20 in the three preceding weeks, further declined last week to 12. The three fatal cases of "fever" corresponded with the number recorded in the preceding week. The 128 deaths in Dublin last week included 28 of children under one year of age and 28 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a decline from the numbers in the preceding week. Four inquest cases and two deaths from violence were registered; and 38, or nearly one-third, of the deaths occurred in public institutions. The causes of four, or more than 3 per cent., of the deaths in Dublin last week were not certified.

## THE SERVICES.

### SOUTH AFRICAN WAR HONOURS.

The King has given orders for the following appointments and promotions in the Army in recognition of the services of the undermentioned during the operations in South Africa. They bear date 29th November, 1900.

*To be a Companion of the Order of the Bath:—*

Surgeon-Lieutenant-Colonel James Magill, Coldstream Guards.

Surgeon-Lieutenant-Colonel Magill served in the Nile expedition in 1884-85 with the Guards Camel Regiment and was present at the action at Abu Klea; severely wounded (mentioned in despatches, medal with two clasps, and Khedive's star). Principal Medical Officer, South Africa, with rank of Surgeon-Colonel.

*To be a Companion of the Order of St. Michael and St. George:—*

Surgeon-Major Walter Calverley Beevor, Scots Guards.

Surgeon-Major Beevor served in the Soudan campaign in 1885 (medal

with clasp and Khedive's star). He also served with the expedition to Ashanti under Sir Francis Scott in 1895-96 (mentioned in despatches and promoted Surgeon-Major, star). In the campaign on the North-West Frontier of India he served under Sir William Lockhart in 1897-98 as Staff Surgeon to the Tirah Expeditionary Force (mentioned in despatches, medal with two clasps).

*To be Companions of the Order of the Bath.*

Surgeon-General James Albert Clery, R.A.M.C.

Surgeon-General Clery served during the Nile expedition in 1884-85 in charge of the Abu Dom Field Hospital (medal with clasp and Khedive's star). He also served in the Soudan under Lord (Sir Herbert) Kitchener in 1898, and was present in the operations subsequent to the battle of Khartoum (mentioned in despatches, British medal and Khedive's medal).

Lieutenant-Colonel Arthur Patrick O'Connor, R.A.M.C.

Lieutenant-Colonel O'Connor served with the Burmese expedition in 1885-86 (medal with clasp).

Major (now Lieutenant-Colonel) Thomas Rashleigh Lucas, R.A.M.C.

Major Lucas served in the Egyptian war of 1882 and was present at the action of Kassassin on August 28th, and at the battle of Tel-el-Kebir (mentioned in despatches, medal with clasp, and Khedive's star). He also served in the Soudan expedition under Sir Gerald Graham in 1884 (mentioned in despatches), and was present in the engagements at El Teb and Tenuat (mentioned in despatches, two clasps). In the Nile expedition of 1884-85 he served with the Camel Bearer Company, and was present in the action at Abu Klea and in the reconnaissance to Metamneh (two clasps). He served also in the operations of the Soudan Frontier Field Force in 1885-86 and in the operations in the Northern Chin Hills, Burmah, in 1892-93 (mentioned in despatches).

Major (now Lieutenant-Colonel) Francis Augustus Bonner Daly, R.A.M.C.

Major Daly served in the Egyptian war of 1882 (medal and Khedive's star), and also served with the Soudan Frontier Field Force in 1885-86.

*To be Companions of the Order of St. Michael and St. George.*

Surgeon-General William Henry Macnamara, R.A.M.C.

Surgeon-General Macnamara served in the Egyptian war of 1882 attached to the 1st Battalion Royal Irish Fusiliers and was present at the battle of Tel-el-Kebir (medal with clasp and Khedive's star). He served also in the campaign in the Soudan under Lord (Sir Herbert) Kitchener in 1898 as Principal Medical Officer, British Brigade, and was present at the battles of the Athara (mentioned in despatches) and Khartoum (mentioned in despatches, C.B., British medal, and Khedive's medal with two clasps).

Colonel Richard Exham, R.A.M.C.

Lieutenant-Colonel John Cotter Dorman, R.A.M.C.

Lieutenant-Colonel Dorman served in the Afghan war, 1878-9, and was present in the engagement at Ali Kheyl and at the forcing of the Shutargardan (medal). He also served in the Egyptian war of 1882 (medal and Khedive's star).

Major (now Lieutenant-Colonel) Henry James Peard, R.A.M.C.

Major Samuel Foster Loughheed, R.A.M.C.

Major Alexander Fraser Russell, R.A.M.C.

Major Sinclair Westcott, R.A.M.C.

Major Roger Kirkpatrick, R.A.M.C.

Major Kirkpatrick served with the Burmese expedition in 1886-88 (medal with two clasps) and in the campaign on the North-West Frontier of India in 1897-98, under Sir W. Lockhart, with the Tirah Expeditionary Force (medal with two clasps).

Major Robert John Shaw Simpson, R.A.M.C.

Major Thomas William O'Hara Hamilton, R.A.M.C.

Major Samuel Foster Freyer, R.A.M.C.

Major S. F. Freyer served in the Soudan campaign in 1885 (medal with clasp and Khedive's star).

Major Nicholas Charles Ferguson, R.A.M.C.

Major Hugh Champneys Thurston, R.A.M.C.

Major Thurston served in the Burmese expedition in 1891 with the Wuntho Field Force (medal with clasp) and also in the South African war, 1899-1900.

Major Oliver Richard Archer Julian, R.A.M.C.

*To be Companions of the Distinguished Service Order.*

Major Robert James Geddes, R.A.M.C.

Major Geddes served in the South African war in 1899-1900 and was present in the engagement at Klip Drift, the operations of Paardeberg, including the engagement at Kitchener's Kopje, the engagement at Driefontein, and the occupation of Bloemfontein.

Major Alexander Arthur Sutton, R.A.M.C.

Captain Frederick Smith, R.A.M.C.

Captain Smith served in the Zulu war in 1879 (medal with clasp) and in the Boer war of 1881.

Captain Henry Jules Parry, R.A.M.C.

Captain Frederick Joseph William Porter, R.A.M.C.

Captain Herbert John Martin Buist, R.A.M.C.

Captain Buist served in the campaign on the North-West Frontier of

India under Sir William Lockhart in 1897-98 with the Malakand Field Force (mentioned in despatches, medal with two clasps).

Captain Edgar Montagu Pilcher, R.A.M.C.

Captain Pilcher served in the campaign on the North-West Frontier of India under Sir William Lockhart in 1897-98 with the Tirah Expeditionary Force (medal with two clasps).

Lieutenant (now Captain) Charles John O'Gorman, R.A.M.C.

Lieutenant (now Captain) Robert Strickland Hannay Fuhr, R.A.M.C.

Lieutenant George Goslett Delap, R.A.M.C.

Lieutenant Howard Ensor, R.A.M.C.

Lieutenant Langford Newman Lloyd, R.A.M.C.

*To be Majors.*

Captain S. G. Moores, R.A.M.C.

Captain Moores served with the Chitral Relief Force under Sir Robert Low in 1895 in medical charge of the 1st Battalion Gordon Highlanders and No. 8 Mountain Battery Royal Artillery (medal with clasp), also in the South African war 1899-1900 with the Kimberley Relief Force attached to the Scots Guards and was present in the engagements at Belmont, Enslin, and Modder river—wounded (mentioned in despatches)—Magersfontein, the march to Bloemfontein, the engagement at Diamond Hill and operations at Belfast, and the advance to Koomati Poort.

Captain J. H. E. Austin, R.A.M.C.

Captain Austin served in the campaign in the Soudan under Lord (Sir Herbert) Kitchener in 1898 (British medal and Khedive's medal).

*To have the Honorary Rank of Major.*

Quartermaster and Honorary Captain T. E. Kennedy (now retired pay), R.A.M.C.

*To have the Honorary Rank of Captain.*

Quartermaster and Honorary Lieutenant S. Duffield (since deceased), R.A.M.C.

Quartermaster and Honorary Lieutenant F. Crookes, R.A.M.C.

*To have increased rate of pay under Article 232, Royal Warrant for Pay, &c. :—*

Quartermaster and Honorary Captain E. Thowless, R.A.M.C.

Quartermaster and Honorary Lieutenant (now Honorary Captain) J. Hirst, R.A.M.C.

Quartermaster and Honorary Lieutenant A. Bruce, R.A.M.C.

Quartermaster and Honorary Lieutenant J. C. B. Whitehorn, R.A.M.C.

Quartermaster and Honorary Lieutenant F. Bruce, R.A.M.C.

Quartermaster and Honorary Lieutenant T. Exton, R.A.M.C.

Quartermaster and Honorary Lieutenant T. J. Jacomb, R.A.M.C.

Quartermaster and Honorary Lieutenant A. H. H. Niblett, R.A.M.C.

*The following members of the Royal Army Medical Corps to have the Distinguished Conduct Medal :—*

First-class Staff-Sergeant-Major J. de Stewart, Sergeant-Major R. Watson, Sergeant-Major A. R. Titchener, Sergeant-Major D. Roberts, Sergeant-Major F. B. Bowyer, First-class Staff-Sergeant F. H. Dolman, First-class Staff-Sergeant J. R. Gibbons, First-class Staff-Sergeant C. W. Measures, Second-class Staff-Sergeant N. Cornell, Second-class Staff-Sergeant T. Johnstone, Second-class Staff-Sergeant H. Lattemore, Second-class Staff-Sergeant F. S. Marsland, Second-class Staff-Sergeant J. Hampton, Second-class Staff-Sergeant R. Burrows, Staff-Sergeant C. H. Cooper, Sergeant T. H. V. Coad, Sergeant J. Leonard, Sergeant J. Bright, Sergeant E. I. Cadogan, Lance-Sergeant T. Davey, Lance-Sergeant F. G. Bright, Corporal W. H. Servey, Private A. Nunns, Private J. Harvey, Private M. T. Sparkes, Private H. Burford, Private R. N. Macgregor, Private (Hospital Orderly) D. Stuart attached, and Private (Hospital Orderly) F. W. Woodier attached.

IRISH HOSPITAL.

*To be Companions of the Order of St. Michael and St. George :—*

The Honourable Rupert Edward Cecil Guinness.

Mr. George Stoker.

Dr. James Byrne Coleman.

LANGMAN'S HOSPITAL.

*To be a Companion of the Order of St. Michael and St. George :—*

Dr. Herbert Johann Scharlieb.

*To have the Distinguished Conduct Medal:—*

Private E. H. G. Wynyard, St. John Ambulance Brigade.

## YEOMANRY HOSPITAL.

*To be a Companion of the Order of St. Michael and St. George:—*

Major Charles Stonham.

*To have the Decoration of the Royal Red Cross:—*

Beatrice Constance (Lady Chesham); Miss Catherine Emelia Nisbet; Miss Mary C. Fisher.

## WELSH HOSPITAL.

*To be a Companion (Civil Division) of the Order of the Bath:—*

Mr. John Lynn Thomas.

*To be a Companion of the Order of St. Michael and St. George:—*

Mr. Robert Herbert Mills-Roberts.

*To have the Decoration of the Royal Red Cross:—*

Miss Marion Lloyd.

## PRINCESS CHRISTIAN'S HOSPITAL.

*To be Companions of the Order of St. Michael and St. George:—*

Mr. Alfred Moseley.

Mr. Frank Stevens.

*To have the Decoration of the Royal Red Cross:—*

Sister Eleanor Constance Lawrence.

## EDINBURGH HOSPITAL.

*To be a Companion of the Order of St. Michael and St. George:—*

Dr. Francis Boyd.

*To have the Decoration of the Royal Red Cross:—*

Sister Annie Warren Gill.

## SCOTTISH NATIONAL HOSPITAL.

*To be a Companion of the Order of St. Michael and St. George:—*

Deputy-Surgeon-General Henry Cayley, Honorary Surgeon to the King (late Indian Medical Service).

## PORTLAND NATIONAL HOSPITAL.

*To be a Companion of the Order of St. Michael and St. George:—*

Dr. Joseph Ernest Goodfellow Calverley.

*To have the Decoration of the Royal Red Cross:—*

Nurse Edith Pretty.

## LADYBRAND.

*To have the Decoration of the Royal Red Cross:—*

Miss Julia Underwood.

## LADYSMITH.

*To have the Decoration of the Royal Red Cross:—*

Mrs. Eugénie Ludlow.

## MAFEKING.

*To have the Decoration of the Royal Red Cross:—*

Lady Sarah Wilson, Mother Superior Teresa, Miss Hill, Miss Craufurd.

*To have the Decoration of the Royal Red Cross:—*

The Hon. Mrs. Agnes Mary Goldmann, Mrs. Gunning, Mrs. Maasdorp, Mrs. Wilman, Miss Cairncross.

## COLONIAL FORCES.

*New South Wales Contingent.**To be a Companion of the Order of the Bath:—*

Major W. L'Estrange Eames (Medical Corps).

## ROYAL NAVY MEDICAL SERVICE.

Notice is given in the *London Gazette* to the officers, seamen, and marines who took part in the operations in South Africa between Oct. 11th, 1899, and March 8th, 1901, that the special gratuities awarded for the same are now in course of distribution in the Prize Branch of the Department of the Accountant-General of the Navy, Admiralty, S. W.

## Correspondence.

"Audi alteram partem."

## "ON THE PROPHYLAXIS OF CARCINOMA."

*To the Editors of THE LANCET.*

SIRS,—I should like to have permission to refer to several communications on this subject.

1. With regard to Dr. Craigie Gray's interesting letter in THE LANCET of Sept. 21st, it appears that milk and its products are not used, except a little condensed milk, in the towns of North China, but that Dr. Gray has often seen carcinoma of the lip, breast, and penis in the mission hospitals there. The hypothesis I put forward for examination was that the secretions of the skin glands may be a vehicle for conveying the cancer germ. The mammary is only one of these glands, though, of course, in some respects the most important. Sweat, sebaceous matter, and smegma præputii cannot be unknown in North China. What would be really interesting to learn is the comparative frequency of cancer of the alimentary canal in the port of Newchwang, where, according to Dr. Gray, no milk or milk products "exist," and in a country like England, where they are staple articles of diet. And to be of real value not the statement of an impression but figures and various details should be given—e.g., we should wish to know if the mission hospitals of northern Chinese ports are confined to the townspeople only. Of one thing we may be certain—viz., that whether it is used as food or not by adults there must be a great deal of milk in northern China, as the women and inferior female mammals are not likely to secrete green tea for their suckling offspring. And although most of the milk may be consumed by the young, some of it must be spilt on clothes, and that the cancer germ can pass alive right through the alimentary canal of adults is shown by the occurrence of carcinoma of the sigmoid flexure and rectum. In this connexion it would be interesting to know what are the habits of the northern Chinese as regards cleanliness?

2. I have received a very interesting letter from Dr. C. N. Saldanha. He says that the Hindoos suffer comparatively little from cancer and that they are the greatest milk-consumers in the world, but that the milk is universally boiled. They also eat a great deal of ghee or clarified butter. A bath before a meal is enjoined by their religion, "and even the poorest slave bathes once a day." They also wear either light clothing or none at all. Dr. Saldanha contrasts this with the "skin sodden with sweat, the shed epidermis, and the warm, heavy underclothing" of many Europeans, especially the working-classes. There is a letter from Dr. Saldanha on the subject of the Social Factor in the Genesis of Cancer in THE LANCET of April 28th, 1900, p. 1246.

3. With reference to my hint that "lanolin" might easily prove a favourable medium for the protection, if not for the culture, of any organism which lives in sweat glands or milk follicles, the original manufacturers of lanolin have courteously sent me "a compilation of the works on lanolin, published 1885-1892 in the medical journals" (Berlin, 1892) containing high authority for regarding lanolin as not only aseptic but antiseptic. But I cannot help being struck by Article 72 of this pamphlet: "Lanolin as a Vehicle for Vaccine Lymph," by Surgeon-Major M. G. King. The author states that "mixtures consisting of one part of" (vaccine) "pustular contents with four parts of lanolin were always preserved for at least 40 days." So that lanolin, while opposed to septic organisms, is actually protective of the vaccine virus. I have found nothing in the compilation to show how lanolin behaves to the cancer organism, whether it protects it as it does vaccinia or obstructs it as it does common septic micrococci. Lanolin is in some respects so valuable a substance that I should be sorry to do it an injustice.

4. I learn that Lyon<sup>1</sup> analysed the cancer mortality record of the City of Buffalo Board of Health and found a marked concentration in the German wards. The Germans and Poles were distinguished by the very large number of cases of cancer of the stomach and the comparatively small

<sup>1</sup> American Journal of the Medical Sciences, June, 1901.

number of cases of cancer of the uterus and breast. Lyon considers that the figures support the idea that the peculiar diet of the Germans is responsible for the high rate amongst them.<sup>2</sup>

After a review of such information as has been given me since my paper appeared in THE LANCET of August 31st I do not think that the hypothesis I submitted for examination has been seriously shaken, and it seems to receive a certain small measure of support from some of the facts stated—e.g., the freedom of the Hindoos from cancer and their carefulness to boil their milk and cleanse their skins, and by the apparent relationship to diet of some kind indicated by Dr. Lyon's Buffalo figures.

I am, Sirs, yours faithfully,  
Sept. 30th, 1901.

C. B. KEETLEY.

## THE COMING ELECTION TO THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—Acting as secretary *pro tem*. I beg to inform you that a meeting of the profession in the north is being arranged in connexion with the approaching election to the General Medical Council. The County of Durham Medical Union has taken the initiative and has already been promised the coöperation of the North of England Branch of the British Medical Association, the Northumberland and Newcastle Medical Association, and the Gateshead Medical Association. There is no doubt that the other associations in the district will assist in making the meeting large and representative. In order to save the time of candidates for the Council and to give them an opportunity of easily reaching as large a number as possible of the electors, it is proposed to ask every candidate to come to the proposed meeting which will be arranged for a date in October. This meeting, which will be held in Newcastle, will offer to each candidate an opportunity to state his views and make the personal acquaintance of a section of the electors. The meeting will, we hope, have the effect of increasing the interest in the election and of ensuring a good local vote.

I am, Sirs, yours faithfully,  
Gateshead, Sept. 27th, 1901.

ALFRED COX.

## "APPENDICITIS."

To the Editors of THE LANCET.

SIRS,—Having read with considerable interest Mr. F. G. Lloyd's excellent article on Appendicitis, some General Remarks on its Pathology and Treatment, which appeared in THE LANCET of Sept. 21st, p. 788, it has occurred to me that he has passed over what may be one of the primary causes of this not uncommon trouble. For some time past it has been in my mind that the starting-point is due to defective digestion brought about frequently by imperfect mastication of food. The undigested portions decomposing in the bowel generate gas which distends the cæcum; this distension naturally opens wide the orifice of the appendix vermiformis, into which faecal substance is allowed easily to enter. The gas passing away and the orifice contracting the contained matter is thus retained. The appendix, endeavouring to expel it by its vermicular movements, squeezes out the fluid parts, but the more solid portion remains behind and becomes the concretion which is so frequently found as the cause of the inflammation which has necessitated operation. In many cases the primary attack subsides until another cæcal distension takes place with a recurrent "appendicitis," and in one of these attacks of distension it is easily conceivable that a foreign body, such as any of those so well illustrated in the *Johns Hopkins Hospital Bulletin* for January-March, 1899, may enter and give rise to violent inflammation and be found at the time of operation. In a recent case in my practice a faecal concretion of the shape of, and as large as, a monkey-nut was discovered together with two cherry-stones. The patient underwent operation; the appendix was excised and he made a good recovery. Whether this suggestion is original I am not prepared to say, but so far I have not seen attention drawn to it as a cause.

I am, Sirs, yours faithfully,  
HERBERT J. CAPON.  
Upper George-street, W., Sept. 29th, 1901.

<sup>2</sup> Brit. Med. Jour., Sept. 21st, 1901.

## "WORKHOUSE NURSING."

To the Editors of THE LANCET.

SIRS,—Through the courtesy of Miss Louisa Twining I have been able to confirm that which I had previously suspected—viz., that Mr. F. R. Humphreys has annexed and labeled as "my (Mr. Humphreys's) scheme" the plan formulated by Miss Twining and published by her in July, 1901. I have no intention, therefore, of discussing the matter further with Mr. Humphreys, but as that gentleman has represented me as holding views entirely contrary to my expressed opinions I must ask you to allow me to correct his statements.

In my last letter, after stating that nurses in the smaller infirmaries were not well paid and were badly governed, I expressed the opinion that with adequate salaries and proper government there would be no lack of good nurses. In the face of this Mr. Humphreys accuses me of holding exactly diverse opinions and bombards me with extracts from the reports of Local Government Board inspectors, with every one of which I entirely agree. Either Mr. Humphreys is obtuse or he represents me as holding opinions contrary to the actual facts that he may have the easy advantage of controverting them. Mr. Humphreys also represents me as advocating the employment of untrained nurses, whereas I expressly stated that I admitted the advisability of having highly trained nurses, a statement which Mr. Humphreys has omitted to quote; and I endeavoured to make it perfectly plain that the suggested massing together of the sick would not supply the requisite material for the efficient training of nurses, but would result in the production of a fraudulently hall-marked article. Mr. Humphreys accuses me of contradicting myself when I say that the larger infirmaries train their nurses thoroughly. It is difficult to argue with one who knows so little of his subject as to be unable to distinguish between a large infirmary situated in the midst of its district and containing many acute medical and surgical cases and that of a small country infirmary miles away from the homes of its patients.

The term "pioneer work" as applied to the efforts of the Workhouse Infirmary Nursing Association is simply a cant phrase, and the fact remains that it committed suicide because it had become so distrusted, and had by the underhand methods of its nurses excited so much antagonism that it could no longer continue its career.

I am, Sirs, yours faithfully,  
F. S. TOOGOOD, M.D. Lond.,  
Medical Superintendent, Lewisham Infirmary, S.E.  
Sept. 30th, 1901.

## "THE PROSPECT OF CURE IN CANCER."

To the Editors of THE LANCET.

SIRS,—In confirmation of the views expressed by Dr. Horace Manders in THE LANCET of Sept. 28th may I be allowed to state that it has recently been my privilege to be a disinterested, and I hope impartial, observer of a number of cases of cancer and of pulmonary tuberculosis which are at the present time undergoing treatment without the aid of drugs at the hand of a physician and an expert in electrical science, whose desire it is that their names should for the moment not be divulged?

The cases of tuberculosis are all in the stage of cavitation; those of cancer have, with one exception, been pronounced by authorities well known to the medical world to be hopeless. Of all those which have been more than a week under treatment I am in a position to say that, both as to local conditions and general health, they are in a state which, to all appearance, is one of imminent cure. Very shortly—probably before many weeks have passed—you will be invited to give to the medical profession a full statement of these cases and a detailed account of the means and methods which are being brought to bear on their treatment.

I am, Sirs, yours faithfully,  
Sept. 30th, 1901.

W. BEZLY THORNE.

## THE OUTBREAK OF SMALL-POX IN SOUTH AUSTRALIA.

To the Editors of THE LANCET.

SIRS,—The account of the outbreak of small-pox by your Australian correspondent in THE LANCET of July 27th, p. 253, is correct in the main but erroneous in some particulars, especially where it states, "When the Adelaide passengers

had been 11 days in quarantine Dr. Ramsay Smith advised that they should be released and kept under surveillance." This is not so. What I did was to recommend the removal to comfortable quarantine quarters elsewhere of certain persons sick, but not from small-pox, who had been certified as medically unfit for detention on Torrens Island. This removal was accomplished as soon as the weather permitted. These persons, like the other contacts, served their legal period of detention, for whatever my personal views of quarantine in general may be I have to carry out the laws in particular that refer to this State. The statement that a constable developed the disease at Adelaide is incorrect.

The muddles your correspondent refers to existed (1) in the imaginations and reports of some newspaper correspondents who knew neither laws nor science; (2) the misstatements founded thereon by an Adelaide medical gentleman; and (3) in an alleged interview of a newspaper correspondent with the president of the Board of Health at Sydney who afterwards affirmed that he had never given any foundation whatever for the statements regarding blundering at Adelaide attributed to him in that interview. Unfounded criticisms of this sort regarding official action are ignored when they appear in the lay press; but they should not be allowed to gain currency by being repeated unchallenged in professional journals.—I have the honour to be, Sirs,

Your obedient servant,

W. RAMSAY SMITH, M.B., C.M., B.Sc. Edin.,  
President of the Central Board of Health for South Australia.  
Adelaide, August 28th, 1901.

## THE OPEN-AIR TREATMENT OF TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—In a previous communication to you—published on May 20th, 1899, p. 1409—I recorded a case of early phthisis in a young woman which showed marked improvement and eventual recovery under treatment by high feeding and fresh air. I have recently seen this case again and the improvement has been permanent. The patient looks the picture of health, takes long bicycle rides, and has neither felt sick nor sorry during the time—a period of two years and four months.

As I mentioned then, tuberculosis in any form is quite a rarity in this district and hitherto only a few cases, comparatively speaking, have come under one's care from other places, and from various causes they generally stay but a short time; unfortunately, too, one hears little or nothing of their subsequent history, and it is satisfactory to find as above that the treatment is, at any rate in some, a means of permanent cure. All early cases invariably show marked improvement, and I have now a patient who is responding to treatment in a fashion astonishing both to her relatives and myself. The patient, a married woman, aged 42 years, was ordered away by her medical man for phthisis of the lung, as her best chance. The lung is affected as low as the nipple and the drenching sweats, loathing of food, anæmia, and utter listlessness combined made as sorry a picture as one need wish to see. Walking and movement caused much distress. The house she is staying at is on clay in the lowest-lying part of the village and the situation is not the most suitable for the open-air treatment. However, the trial has been most satisfactory, as in 15 days she has gained a stone in weight with corresponding improvement in every other respect, including the ability to walk quite a fair distance without trouble. It is too early to give a good definite prognosis, but so far the satisfactory progress of the case speaks well for high feeding and fresh air in suitable cases even in private houses not in the best of positions. I feel sure that the enormous rise and fall in the tide here by causing a continual change of air is responsible not only for the healthy condition of the population, but also for the happy results obtainable in early cases of phthisis.

I am, Sirs, yours faithfully,

GEORGE BOYD, M.R.C.S. Eng., L.R.C.P. Lond.  
Portishead, Somerset, Sept. 28th, 1901.

## "FRENCH AND BRITISH POSTAL MEDICAL SERVICES: A COMPARISON."

To the Editors of THE LANCET.

SIRS,—Your Special Commissioner in his article in THE LANCET of Sept. 21st, p. 806, upon the above subject has contributed an extremely well-informed and interesting account, so far, at any rate, as London is concerned. May

I, as postal medical officer to a large and important London district, make a few observations thereon?

Of the French system I know nothing beyond what I have read in your Commissioner's admirable article, but I gather that part of the French system at least is of comparatively recent establishment (May 19th, 1900), and whether a sufficient length of time has elapsed to prove its efficiency and whether the medical service there works as smoothly and easily as the easy flow of your Commissioner's remarks appears to suggest I cannot say, but I think it at all events merits the query. The system is certainly ingenious and, compared with our "rough-and-ready method," which is simple if not original, looks somewhat complicated.

"The most serious defect of the British system," says your Commissioner, "is that the 8s. 6d. per annum has to meet every conceivable circumstance that may arise." "If a serious surgical operation is needed this must be performed, &c., &c." Theoretically this may be so; 8s. 6d. per officer per annum is paid for medical attendance, but surely for medical attendance only so far as a medical officer's ability goes. The postal authorities certainly do not expect them to undertake serious surgical operations. There is no such stipulation made in the instructions issued to medical officers on appointment; they are simply required to do their best for their patients in promoting their recovery and their speedy return to duty. Obviously their best would not be the undertaking of a serious operation of which they have had probably little or no experience. I should be exceedingly surprised also to learn that they (the postal authorities) have ever required a medical officer to provide a surgeon for such operation at his own expense. Not many surgeons, I imagine, would care to undertake a serious operation in the home of a postman in London with all the attendant difficulties in the matter of space, ventilation, cleanliness, and nursing, and I doubt whether competent surgeons could ever be induced to visit and to operate at anything like the scale of fees mentioned by your Commissioner. We have different ideas as to operation fees here in England.

And why should not postal officials be the recipients of hospital charity if necessary? They surely have as much right to it according to their station in life as other members of the community. In most offices they subscribe to the Hospital Saturday Fund, and the late Postmaster-General was in the habit of specially subscribing to certain London hospitals, so we were given to understand, because he recognised the fact that from time to time cases arose amongst the officials that could only be treated satisfactorily in hospital. Only such cases as really require hospital attention are sent there and hospital authorities at least know they are proper cases for relief. In an experience of eight years I have never known any difficulty arise in such cases.

Again, your Commissioner says: "There is such a delightful and lazy simplicity about the 8s. 6d." Why lazy? I think it would strike most people as a simple, practical, common-sense method of remuneration for services, generally admitted, I believe, to be exceedingly well performed. Why should one complain if a Government Department for once in a way does do a practical common-sense stroke of business? Government does not often get credit for so doing. Your Commissioner says that it is not common-sense and he would introduce the intricacy and elaborate detail of the French system. But it does not follow that a system which may answer admirably in Paris would be equally applicable in London. Some few years ago a commission was appointed to investigate post-office methods and grievances of officials, and the question of officials being attended by the medical officer of their own home district was then raised and, after consideration, the idea was rejected. The postal medical officer's duties do not merely consist of attendance upon the sick. He has to be in touch with his district offices, he has to be familiar with their working arrangements, and their sanitary condition is his special care; he is more or less acquainted with the officers employed there and he has to make reports, suggestions, and give advice from time to time concerning them and their duties. If an official is being attended privately and the illness is of any considerable duration it is the medical officer's duty to make himself acquainted with the case and to be prepared to give an opinion upon it. He is to a certain extent responsible for the amount of sickness, or, at all events, is expected to be able to account for any excess of sickness in his district. These are his duties and responsibilities; they mean a great deal more than mere sick attendance. The Department recognises that much is required

of him and has been pleased from time to time of late to enhance his emolument of 8s. 6d. per head by certain extra payments as mentioned by your Commissioner. But it certainly does not expect him to do impossibilities with his not very extravagant salary.

Almost the only difficulty that faces the postal medical officer is his dealing with the private medical attendant of an official. Friction and unpleasantness do undoubtedly occasionally arise, but I have always found that with courtesy and a little tact misunderstanding is easily removed, and my own relations with these gentlemen have always been of the pleasantest. The post-office official of the rank entitled to gratuitous medical attendance is an individual who is fond of changing his abode. He is allowed to reside where he pleases within three miles of his office; by special permission he sometimes goes much further afield. Many of them change their residence half-a-dozen times in as many years, some even oftener than this. Under the French system, then, how many different official medical attendants he may have in the course of a few years. How various may be the opinions expressed about him, and all responsible official opinions. One year he may reside south of the Thames, another in the north district, and another even as far away as Ealing or Balham. The interminable official correspondence, here and there, that would inevitably arise from such a system as this can perhaps only be properly appreciated by the official mind.

It is in his comparison of the two services that I disagree with your Commissioner; with the rest of his article I entirely agree. The French service is unquestionably superior in elaborate detail, but elaborate machinery is usually the most prone to breakdown. Our system is admittedly not perfect, but it answers its purpose very well. The medical officers are perhaps not very extravagantly remunerated—some of us may even at times grumble a little, but on the whole we are fairly content. The work is interesting and instructive and the grave and terrible responsibilities described by your Commissioner as hanging over our heads and making our lives a burden are so remote that they may assuredly be disregarded.

I am, Sirs, yours faithfully,

London, Sept. 25th, 1901. A POSTAL MEDICAL OFFICER.

## OUTBREAK OF PESTIS BUBONICA AT NAPLES.

To the Editors of THE LANCET.

SIRS,—Grave doubts are entertained in well-informed professional circles whether the cases described as those of pestis bubonica cases, the occurrence of which has thrown southern Italy into panic and is at the present moment inspiring the most drastic measures at headquarters, come really under the category of pestis bubonica at all. Scarcely had the first intimations of the outbreak been made public when Professor Alessandro Lustig of Florence, who has studied the plague at Bombay from 1897 to 1899 and has devised a special vaccine for its treatment, announced that 24 hours would make it evident whether or no the Neapolitan medical officers had been justified in their diagnosis. Well-nigh a week has elapsed and we are still without the data on which a satisfactory judgment can be formed. The press is complaining loudly of this official delay, and meanwhile it may be well to recapitulate the facts partially known but thoroughly vouched for as to the circumstances in which the outbreak first appeared.

Last week the primary indications of something resembling pestis bubonica were suspected on board the steamship *Adria* (formerly known as the *Ortigia*). She had touched at various ports in the Levant and had taken in some families fleeing in alarm from Egypt and Tunis, where the plague was believed to be prevalent. The vessel had as part of its cargo 24 bales of cotton, and considering that its point of departure was Bombay it should not have been allowed "libera pratica" (free course). The sanitary authorities seem to have thought otherwise and in point of fact both cargo and passengers were permitted to be put on shore, the former at Punto Franco, the latter at Naples. Within the same week another steamship hailing from Calcutta, with a cargo of hides, touched at Alessandria (Egypt), by which time the hides were in such an advanced state of putrefaction that they were not allowed to be landed. The vessel proceeded to Marseilles, where again the hides were refused admittance. At Genoa, the

next port it touched at, the same prohibition was practised. Finally, at Naples, its next place of call, "o per incuria o per inframettenza di qualcuno" (either through carelessness or the intercession of some interested party), the hides, by this time in a highly dangerous condition, were disembarked and deposited at Punto Franco for retransmission to Alessandria, for which they were originally destined. This proceeding was, it is said, reported to the Prefect when holding an official investigation, and a committee acting under him is inquiring diligently into the sanitary service of the port.

One can understand the anxiety of all interested in the sojourn of strangers in Italy—a source which from the English-speaking world alone brings in £20,000,000 annually—to minimise the facts as much as possible. But, however inspired, "suppressio veri" is always bad policy, inevitably resulting in "suggestio falsi," or the exaggeration of the truth. Is the disease from which so many are now being treated either on board the *Oreto* or in the lazaretto of Nisida the true "pestis bubonica"? Dr. Alfonso Perrone of Naples, a highly esteemed authority, is more than doubtful on the question and thinks the symptoms are rather those of *charbon malin* or *puistula maligna*, easily communicable to man or beast by contact with certain hides known as the nidus of the bacillus special to such maladies. He supports his view by the undoubted fact that the so-called "pestis" was confined to the labourers at Punto Franco engaged in unloading the two steamships above referred to and the absolute immunity from the same symptoms of all who came near or in actual contact with those labourers when under treatment in hospital or even when being conducted to it—immunity owing nothing to prophylactic or precautionary measures, which indeed were not applied. Dr. Perrone is not alone in taking this view. Punto Franco has long been notorious for the insanitary condition of the hides discharged there. Some months ago a cargo of the same arrived in such a state of putrescence that the labourers "struck" rather than handle them, and one of the men who was prevailed upon to help in the unloading was so overcome with the fœtor that he lost consciousness with all the symptoms of asphyxia. An animated interchange of views *apropos* of Dr. Perrone's contention is in progress in the Neapolitan press, while the necropsy held by Professor Gosio, Professor Basile, Professor Cimmino, and Dr. Druetti on one of the victims who died in hospital resulted in the report that "non furono ritrovati i classici bubboni della peste, trattandosi evidentemente di una forma non ordinaria" (the typical buboes of plague were not found, the case being evidently one of an unusual form). Whatever the malady may turn out to be, it is now completely circumscribed and the latest announcements make it clear that it is not likely to extend. All the patients, it seems, are doing well, whether owing to the Haiffine vaccine, which, as prepared at the sanitary station on the island of Pianosa, has been generally used, or to the sedulous clinical care bestowed, it is difficult to say. Naturally enough the friends of Professor Lustig are inquiring whether his vaccine, which has proved successful in Australia, where it has "had a fair trial," should not have had the preference; still more whether his opinion should not have been taken before sending to Paris for Dr. Salimbeni of the Pasteur Institute. But there are questions which must await solution when the official report is made *publici juris*.

I am, Sirs, yours faithfully,

Florence, Sept. 30th, 1901.

M.D.

## THE SERVICE ON ST. LUKE'S DAY.

To the Editors of THE LANCET.

SIRS,—In reference to the service which, I presume, will be held again this year at St. Paul's for the medical profession I beg to protest at the very unjust division of the seats for medical men. On previous occasions nearly all the front and best seats were occupied by women, young girls, and even boys, to the exclusion especially of elderly medical men, who on the last occasion were shunted to the side seats, where they could neither see anything or even hear the preacher.

As the service is understood to be solely for members of the medical profession I think it incumbent on the authorities to arrange a fairer distribution of seats.

I am, Sirs, yours faithfully,

Sept. 24th, 1901.

SURGEON-MAJOR.

## MUNICIPAL REPRESENTATIVES ON THE HOUSING OF THE POOR:

A CONFERENCE AT GLASGOW.

(FROM OUR SPECIAL COMMISSIONER.)

WHATEVER other good purpose the Glasgow Exhibition has served it has certainly been the means or pretext for ventilating the vexed question of the housing of the poor. As already described,<sup>1</sup> the engineers at their International Congress, held in connexion with the Glasgow Exhibition, had a section devoted to municipal engineering, and here the housing question was lengthily discussed. The Exhibition also attracted the British Association to Glasgow, and one of the meetings of the Association which brought together the largest number of persons was that held by the Economical Section for the purpose of debating the housing problem. On this occasion Professor Smart, LL.D., read the opening paper, contending that municipalities should only provide dwellings for the poor of the community, and it soon became evident that one of the most debateable points was the definition of the word "poor." To this word not a few speakers were tempted to prefix the descriptive adjective "deserving." Others, on the contrary, urged that it was precisely the undeserving poor who constituted the most urgent and dangerous phase of the problem. Here at once there seemed to be a conflict between sanitation and morality. Some speakers were anxious to help those who strove to help themselves, but the sanitarian pointed out that it was the degraded, the immoral, the reckless, and the shiftless who constituted the principal menace to the public health. If the rejected class, the disinherited, and the degraded could be properly housed and made to pay the rent, the rates for the poor, the police, and the sanitary rates would be considerably reduced and the danger of epidemics in a great measure set aside. For such a purpose disciplinary sanitary dwellings were required; but as they were not likely to pay their expenses the question arose as to whether a housing-rate was not as justifiable and likely to be as beneficial as the poor-rate. In the course of the discussion it was pointed out that many Clyde workers spent 6s. a week in rent, but that the publican got three-fifths as much money from them as the landlord. The difficulty rested in the fact that these people rejected any sort of discipline and to enforce discipline there should be an alliance between landlords and the municipality. Landlords—this was the general sense of the meeting—who have no appreciation of their responsibilities should be sternly punished. To let an unhealthy tenement should be just as great an offence as the selling of unsound fish or tuberculous meat. The thriftless degraded class knew no greater power than that of the landlord. The latter must be forced to insist that his tenants must behave or leave. When thus driven away a municipal shelter, at a normal rate of payment, should be open to them. No question whatsoever should be asked of the applicant, but the necessary discipline should be enforced, and any real case of poverty would be found out and relieved.

Here, then, we have a dual form of coercion proposed. The landlord is to be forced to keep his tenants in order or to eject them; the ejected tenants will find no other refuge except the municipal shelter, where, however bad their antecedents might be, they would be accepted, but where they would be compelled to pay the rent, if they had the means, and would also be compelled to keep their dwelling clean and in sanitary order. It is doubtful, however, if public opinion is ripe for the adoption of such stringent measures. Yet there was no lack of energetic denunciation of that class of individuals who were described as "a disgrace to humanity" and who were bad tenants living in bad houses under bad landlords. Then the house-farmer came in for his share of abuse. This individual would rent what is called a house in Glasgow and a flat in London, paying about £25 a year rent. Such a flat would be big enough to crowd in nine beds. Each of these beds could be let for 10d. a night, and thus a net profit of more than £100 could be realised annually out of the moral and physical wrecks lodged in a dwelling that was rented for £25. Several speakers agreed that the difficulty was with the habits of the occupants rather than with the property.

It was not the poor labouring man but the loafer and irregular worker who created the main difficulty. A respectable working man was always able to house himself, at least in Glasgow, for in London this was not always the case. The Lord Provost (Mr. Samuel Chisholm, LL.D.) spoke with much feeling on the question, and it was easy to see that with him this was an ethical problem and quite as urgent from the moral as from the material point of view. Some thought that the trouble was due to the exorbitant price of land, others that the minimum wage was based on rent, and others that all the evil was caused by drink. The Glasgow municipality believed that they had a duty to perform towards the poorest classes of the community. They had obtained an Improvements Trust Act based on the idea of cleansing the slums, leaving private enterprise to rebuild. But the speculating builders had not come forward and no offers were made for the cleared land that the municipality were able to accept. The early speculators had burnt their fingers and the others kept prudently away. A great number of the people who had been displaced in demolishing some of the slums were earning from 17s. to 18s. a week—they were poor and sober people who tried to pay their way in spite of their slender resources. Others, on the contrary, earned very high wages, but only worked about three days in the week and spent the rest of the time in idleness and dissipation. The corporation, in default of private enterprise, had themselves been compelled to build and now owned a thousand or more tenements, and they were also looking out for likely areas in the outskirts of the city. In practice the process was that of securing poor but respectable tenants. Caretakers were employed to see that the dwellings were kept clean and in good repair and to raise the moral tone of the population. Consequently the more difficult phase of the problem had not been touched, for the corporation had not attempted to provide houses for the utterly disreputable classes. This was a moral question which the municipality had failed to reach. They had dealt with houses rather than with morals and had provided what private enterprise failed to provide—namely, houses at £4 10s. per annum for people who only earned from 17s. to 20s. per week and therefore could not pay more.

Such were the main points raised at the discussion held by the British Association. It will be seen that they served rather to illustrate the difficulties of the case than to suggest a solution. Under these circumstances the "Conference as to Cheap Dwellings" followed very appropriately on the debate at the Economical Section of the British Association. Here, at last, was an opportunity of obtaining some really practical indications. This was not to be a gathering of mere theorists, of hobby-riders, or of charitably disposed persons vaguely desirous of doing something to relieve human misery, if this could conveniently be achieved without disturbing any existing institution or privilege. The Corporation of Glasgow had issued invitations to all the other corporations or the United Kingdom to send such of their members or functionaries as had acquired experience in the question of the housing of the poor. This, then, was to be a meeting of town councillors who had practically dealt with the problem, reinforced by functionaries and specialists known for their extensive experience in such matters. The conference met in the Council Hall of the Glasgow municipal buildings, or City Chambers as they are called, on Sept. 24th and 25th, and on this occasion some really practical advice ought to have been forthcoming. It was, however, somewhat disconcerting to find that speaker after speaker, while expressing his willingness to describe what had been done in his own particular locality, hastened to explain that he attended the conference for the purpose of learning. But if all had come to learn, who, then, was going to teach? Besides the representatives of the city of Glasgow there were 160 delegates from other town councils. At 10 in the morning these representatives had assembled in the Council Chamber and the proceedings were opened by the Lord Provost.

Dr. Samuel Chisholm in his inaugural speech was at least able to render this service—he gave an excellent definition of the word "poor" as applied to the housing question. He said that there was a minimum amount of house space and convenience to which every human being was entitled. The poor were those who, by reason of their poverty, would, if left to the ordinary law of supply and demand, be forced to accept less than that minimum. He frankly admitted that the action taken by the corporation was a desecration of the

<sup>1</sup> THE LANCET, Sept. 14th, 1901, p. 748.

law of supply and demand; but he urged that this law could only be allowed to exist where there was something like equality between the buyer and the seller. Generally speaking, if an article exceeded the price the purchaser could afford he might do without it or buy something else in its stead, or wait for a change in the market. This was not the case with regard to the minimum housing accommodation. As in the past the law of supply and demand had not been interfered with, the result was that houses had been built up in back courts, light and air had been shut out, and a state of things created which was a scandal and a menace to society. As individuals, as a municipality, as humanitarians, or as Christians, they could no longer afford to ignore the cry of the unhoused or of the insufficiently housed. They had to deal with two classes of people: those who had adequate wages but mispent them and those who did not, and could not, earn adequate wages to pay a sufficient rent. The former class might be left to their own devices but for their children, and it was a question whether the law should be strengthened by which children could be taken away from the control of unworthy parents. It could not be said that it was anybody's duty to provide for the needs of self-imposed and perfectly avoidable poverty.

Preceptor and Councillor GRAY (Glasgow) opened the discussion by a paper on the Cheap Acquisition of Land and Capital for Building Purposes. Out of 156,000 houses or flats in Glasgow 36,000 had but one room and 70,000 but two rooms. This showed how they had degenerated from the time when, in good Queen Anne's reign, an Act was adopted stipulating that every labourer's cottage must have an allotment of at least four acres of land. To meet the difficulty Councillor Gray appealed to the capitalist for voluntary effort which would be the noblest employment of his wealth. Then he urged that all vacant suitable lands should at once be utilised and finally he advocated municipal action. The last course should clear the land of what he qualified as "diseased" property. If corporations had to buy such erections they should not pay more than the value of the old material. They must have greater powers over landlords. The latter should have certificates of suitability and all unsuitable houses should be closed. If the landlord failed to rebuild or to repair them the property should be bought by the municipality at the value of the land and the old material. (This I may remark is something like the process adopted at Brussels and a landlord would not charge for the rental value of a house he is not allowed to rent.) Councillor Gray then proceeded to advocate in regard to land the same policy that I remember describing some 20 years ago when it was urged by the Labour representatives on the Paris municipal council. Councillor Gray insisted that on the outskirts of large towns land was held speculatively for a rise. It was high time, he said, that the powers recommended by the Housing of the Working Classes Act, 1885, and, indeed, included in one or more Bills recently before Parliament, should be pressed forward, so that ground might be more and more forced into the market. The landed gentry had driven the poor into the towns and they must now be called upon to share in solving the housing problem. (Here I may add that in Paris it was proposed to tax houses and land which were held back at the same rate as if they were occupied by tenants; and now in Glasgow the complaint is repeated that land suitable for building is held back for speculative purposes, and yet it is only taxed at one-fourth its agricultural value.) Such land must be forced into the market; the cost of transfer, said Councillor Gray, must be reduced, for "if we do not destroy the slums they will destroy us."

Councillor BURT (Glasgow) was even more emphatic. He strongly recommended the breaking-down of the monopoly in land by taxing land held idle or unoccupied. This would bring it into the market, increase the competition to secure tenants, and thus reduce rents. The municipalities of Glasgow and other towns had petitioned in this sense and a strong and united appeal should be made to Parliament. This would be no infringement on the rights of property, for the value of land was increased by the community and the community had a right to that which they created. If the land was acquired on reasonable terms there would be no difficulty in building on it, for the Corporation of Glasgow had been able to borrow money at as low a rate as seven-eighths per cent.

Mr. A. B. McDONALD, the City of Glasgow engineer, read a paper on the Material and Methods of Construction with regard

to the housing of that class which could not be made to pay the rent for model dwellings, even if this was reduced by obtaining the land for nothing. This thriftless class ignored alike decency and comfort and their homes were the normal refuge of zymotic diseases. He thought that even this class could be housed without imposing a charge on the community. The law demanded 400 cubic feet per person. In practice the sanitary inspectors had, for instance, reported a room in Marlborough-street, rented for 1s. 10d. per week, with space for three adults, but it contained six adults, four of whom were lodgers, and the space for each was reduced to 202 cubic feet. In Garngad-road in one room there were six adults and two children, reducing the space to 217 cubic feet. In South Coburg-street overcrowding brought down the average to 171 cubic feet, and in Garngad-hill to less than 100 cubic feet per tenant. There were even worse cases. By such subletting and overcrowding the rent might be reduced to 6d. per week per occupant, and of course no municipality could provide lodgings at so low a rate. He urged that such a class could only be lodged in structures of a special type, where everything would be reduced to its simplest form and consist of "a weather-proof shelter, with ample space, a water-supply, and sanitary accommodation, but little more." For this it might be necessary to obtain some relaxation of the Building Acts. Mr. McDonald submitted plans of a dwelling of three stories, with ten single-room tenements on every floor measuring 1200 cubic feet each. The walls were to be of common brick, with a hollow space for the better protection from external cold. The partitions were to be of plain brick and the floor of one room would be the ceiling of the other. There would be no laths, plaster, or other ornamentation—only the bare walls. The ground required would be 680 square yards, the structure would cost £1100, and he proposed to charge only 1s. per week per room. This would represent a rental of £78, and writing off the rental 25 per cent. and charging interest on the cost of erection at 3½ per cent. there would remain a surplus sufficient to meet a charge of 10s. per yard for the site.

The above scheme constituted one of the most practical suggestions brought forward during the entire conference. It was the lowest bid ever made. 12,000 cubic feet for 1s. per week, and this after paying 10s. per square yard for land. Everybody was anxious to see how this could be done. Such an experiment would really be something quite novel, for never had anything been achieved so economically. Of course, many doubts were expressed and gloomy forebodings entertained as to the inevitable nastiness that would be likely to characterise such very cheap dwellings.

So far only papers had been read, but now discussion was invited, and Mr. JOHN HARRISON of Glasgow commenced by complaining that the cost of building had recently increased 30 per cent.; but he urged that in many cases it was not a question of cost, but a question of improving the morals of the occupants. Miss Octavia Hill was able to obtain from the occupants of slums from 2s. 9d. to 3s. 2d. per week for a single room; and this, in spite of the high price of land, paid 4 per cent. on the capital invested. The great object was to strive to improve the habits and desires of the tenants.

Alderman NEWTON (Newcastle) objected that at Newcastle they had many slums that could not be improved in this way. There was strong medical evidence as to the moral and physical diseases that resulted from people living in an atmosphere which was so unwholesome that it endangered not only the poor but the wealthier classes who lived near them. If it was true that wholesome rooms, in which God's light could penetrate, could be rented for 1s. per week, then a great step would have been taken towards raising the submerged tenth. At present nothing had been done for less than double that price.

Councillor WALTERS (Leicester) said that all efforts were marred by the cost of the sinking fund. As the land always remained its rental value alone need be paid. Then the Local Government Board made them build walls 14 inches thick, though private speculators were allowed to build walls only nine inches thick.

Councillor MARTIN (Woolwich) was anxious that the desire to build should not interfere with the necessity of maintaining many free open spaces, and he agreed with the Lord Provost that the law of supply and demand had not operated in such a manner as to provide for the first necessities of the human family. Even if, as objected, municipal enterprise had only provided tenements for the better class of workers, still this left their former homes open

to the inferior class of workers who had thus better opportunities of getting out of the slums.

Mr. H. C. RICHARDS, M.P., thought that Parliament would be disposed to help the municipalities in their efforts to deal with the owners of slum property; but with regard to the land and the taxing of ground value to discuss that was like beating the air. Parliament would not move in the matter. He did not think that municipalities could deal with those who spent half their earnings on drink, but they could help the deserving poor, not only labourers, but poor widows, shop assistants, and other badly paid workers.

Mr. MURRAY (Tynemouth) urged that the buildings of corporations should serve as an example to private enterprise. At present the poor could not keep themselves clean. A man with a wife and four children, earning perhaps 30s. a week, would have to pay 7s. 6d. in rent alone and then there were often only a tin tub and a kettle of warm water in which to bathe the children, so that the first washed was the best washed.

Mr. CLARK (Shoreditch) complained that the delays caused by the Local Government Board had made his local authority lose seven years before they could get one set of rooms for some workers they had displaced. Further the refusal to allow shops under working-class dwellings had greatly increased the rents which they were obliged to charge.

Mr. D. S. WATERLOW, Chairman of the Housing of the Working Classes Committee of the London County Council, said that Miss Octavia Hill had argued that if land could be bought at 45s. the yard, or 5s. per square foot, much could be done in London; but land in the crowded areas of London could not be obtained at anything like that price. For clearing insanitary areas the London County Council generally paid from 15s. to 17s. per square foot. Block dwellings had to be well built, they would last at least 150 years, and therefore the capital expenditure need not be refunded under from 80 to 100 years. He cited the case of a woman who paid 6s. a week for two miserable rooms in Hackney. A new landlord came and raised the rent first to 8s. and then to 10s., which the woman was obliged to pay because she could not move. But if this was taken over as an insanitary area the compensation to be given would be estimated on the enhanced rental. Many speculators bought up such property and, anticipating its condemnation, raised the rents so as to secure higher compensation. This was not fair and means should be found to prevent such speculations.

Mr. FILDES, of the Manchester Sanitary Committee, complained that private enterprise was able to buy land cheaper than corporations, and Councillor PAGE of Plymouth showed that the rehousing scheme in his town could not be completed because the Government limited the borrowing powers of municipalities. He thought that the charge for the sinking fund might well be put on the rates as it was the means by which the community acquired valuable property.

Baillie W. F. ANDERSON said that for cheap dwellings they must have cheap land, and he could not understand why power was given to acquire land compulsorily at valuation so as to bury the dead and yet there was no similar power for housing the living. Then why should there be special powers to purchase insanitary property and no such powers to acquire unoccupied land?

Mr. TAYLOR, of the London County Council, thought that the freeholder should be made responsible for slum property. Freeholders often bought houses on their freeholds six or seven years before the termination of the leases. This was done on the pretext that the leaseholder could not afford to repair the dilapidations. But when the freeholder had thus obtained possession of the houses he did not repair them. On the contrary, he encouraged an increase of dilapidation in the hope that the dwellings would be condemned and that he would get a handsome compensation. Thus the London County Council had been obliged to pay as much as £100,000 per acre of land and the houses which they had erected cost £100 per inhabitant.

Some town councillors now asked if the discussion was to lead to any practical results and resolutions were promised for the following day. Dr. H. SCURFIELD (Sunderland) wanted to know whether or no anything whatsoever had been done at Glasgow or elsewhere to meet the most urgent phase of the question—namely, the housing of those whose earnings did not exceed £1 per week.

Councillor GRAY and Councillor BURT replied to the discussion and objected to Mr. McDonald's proposed shilling-a-week tenements. It was not a question of how miserably and

cheaply it was possible to lodge human beings. The cheaper the building the higher in proportion would be the cost of the land. They should strive for the higher ideal of good rather than cheap houses. The building described by Mr. McDonald might be fit for a dog-house; it was not worth while devoting their energies to the erection of such miserable dwellings for human beings. Better far strive to break the monopolies that held back the land.

In reply to Dr. SCURFIELD'S question the CHAIRMAN said that though many efforts had been made in Glasgow the fact that they had convened this conference proved that they were not satisfied with the result. They had not the necessary accommodation for those who earned less than £1 a week.

The Conference was then entertained at lunch by the Glasgow Corporation in the largest of the palatial salons that form part of the City Chambers.

(To be continued.)

## NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

### *Increase of the Plague Epidemic.—The Establishment of the Indian Medical Service.*

FOR the week ending Sept. 7th there has been an increase of nearly 1000 deaths from plague. In the Bombay Presidency the number of deaths has risen from 3243 to 4132, in Mysore from 336 to 377, and in Bombay city from 216 to 235. The districts chiefly affected on the Bombay side are the Kolhapur State and the district of Dharwar. The gradual development of the death-rate in Poona during the last few weeks has at last shown itself in the entry of several cases to hospital. It would, therefore, seem that Poona is once more threatened with an outbreak. The number of cases in Bombay city has been rising steadily for several weeks past. Elsewhere the disease seems quiescent, but the continuance of a few cases in Calcutta and the occurrence now and again of a case at Patna should warn the authorities that after the usual interval it may be expected to revive. The general mortality in Calcutta is for the present exceptionally low—something like 20 per 1000 per annum—while in Bombay city the death-rate is 61.11 per 1000. The mortality in the city of Madras still remains abnormally high, the returns for the week ending August 30th showing a rate of 114.3. In this city, however, the mean for the past 10 years is very high—viz., 57.6 per 1000. The deaths from cholera do not account for the excess mortality.

I hear that the Secretary of State will not concede all that the Government of India asked for. The Indian Medical Service is to be increased by 26 officers, not by 52. The demands on the service are still very great. Although famine has largely decreased and is not likely to recur there is no sign of the plague dying out. Medical officers will be required for plague duty and the native forces and hospitals in China must be provided for. The increase of the native army by five battalions means a still further drain on the Indian Medical Service. A still further increase in the establishment must come sooner or later.

Sept. 14th.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

### *The New Anatomical Laboratory at University College, Liverpool.*

THE new anatomical building in connexion with University College has recently been completed. The ground-floor contains the anatomical museum, which includes a large variety of valuable specimens. This room is spacious and is surmounted by a mezzanine floor or gallery also containing anatomical specimens. The dissecting room occupies the first-floor and is one of the finest rooms imaginable. It is luxurious in appearance and is flooded with light. It is about 66 feet long by 36 feet wide, and is amply supplied with every appliance necessary for dissections. There are 12 slate tables and six wooden ones. The fixed basins, which are numerous, are supplied with hot and cold water. There is

also an electric air fan, the building being lighted throughout by electricity. Students of the present day may, indeed, congratulate themselves upon the fortunate circumstances attending their study of anatomy; the contrast between a dissecting-room on the lines of that recently opened at University College and the dissecting-room of 30 or 40 years ago is simply astounding. Professor A. M. Paterson is also to be congratulated upon being at the head of a laboratory which is one of the finest in the kingdom.

*The Liverpool Chamber of Commerce and the West African Sanitary Commission.*

A letter from the Colonial Office was read at the meeting of the Chamber of Commerce on Sept. 16th asking for the views of the committee respecting the selection of a scientific expert to accompany the West African Sanitary Commission. Also a letter from the London Chamber of Commerce was read suggesting that in view of the difficulties which have arisen separate mercantile delegates should be appointed to visit the different colonies. It was resolved to write to the Colonial Office saying that as the Liverpool School of Tropical Medicine has sent, and is sending, expeditions to several of the West African colonies the committee of the African trade section of the Liverpool Chamber of Commerce is of the opinion that the departure of the proposed commission should be delayed pending the receipt of reports to be furnished at an early date by the school as to the results of its most recent efforts.

*The Liverpool Water-supply.*

Happily, in Liverpool there is no dearth of the water-supply, as is just now experienced in Manchester. The water engineer reports that the total quantity of water supplied both within and without the compulsory limits for the week ending Sept. 14th was 204,704,000 gallons, an average of 29,243,000 gallons per day, as compared with a total output in the corresponding week of last year of 199,980,000 gallons, or an average of 28,568,000 gallons per day.

*Lunacy in the West Derby Union.*

The number of lunatics certified for removal to asylums is greater in the West Derby Union than in any union throughout the whole country. The clerk to the guardians had failed to find the reason for the large number of insane persons brought to their workhouse. The only supposition was that the West Derby Union offered greater facilities to the police for bringing in cases than were afforded by other unions; but in any case the numbers are appalling—viz., one in 373, as compared with one in 507 in the county, and one in 434 in England and Wales. An appeal was made to the medical men having seats on the board to try to discover if any means could be suggested for minimising this enormous drain on the resources of the union.

*North-Western Poor-law Conference.*

At the twenty-seventh annual meeting of the North-Western Poor-law Conference held at Chester on Sept. 20th the chairman (Sir J. T. Hibbert) made allusion to the increase in the number of lunatics throughout the country as well as in their own two counties of Lancashire and Cheshire. In many of their asylums they had a congestion of lunatics, many of whom might very well be moved out to make way for other cases. The asylums ought to be used for curative cases, whereas they had a large number of chronic lunatics, quite harmless, and who never would be better, occupying the places of those who needed active treatment and were curable. All four asylums in Lancashire were full to overflowing. He recommended that the Asylums Board should appoint a small committee of experts, if they could get them from their own body, and go through the four asylums and examine every lunatic there. He was bound to say that they would find hundreds who had no right or necessity to be there and who might just as well be treated in the workhouse. They had 8986 lunatics in their four Lancashire asylums and they had 2834 lunatics or imbeciles in their workhouses.

*Infectious Diseases Hospital for Preston.*

The Preston Town Council have arranged to erect an isolation hospital, with accommodation for from 60 to 70 patients, at a cost of about £30,000, with an annual cost of maintenance of from £2000 to £3000.

*Royal Albert Asylum: Opening of the Ashton Wing.*

The opening ceremony of the new Ashton Wing of the

Royal Albert Asylum, Lancaster, took place on Sept. 26th. The new wing, towards the general cost of which Lord Ashton has contributed £15,000, is about 150 feet long and two stories high, and will provide for the accommodation of 50 cripples on the ground-floor and 50 epileptic patients on the first-floor, which is level with the ground-floor of the main building. The plan is on the "pavilion" principle, and each floor consists of a large day room, 54 feet by 32 feet, at the end, with a smaller room opening out of the main room; two dormitories, one 60 feet in length and the other 41 feet in length and 27 feet wide, projecting at right angles from the main corridor; a stone staircase, lavatory, bathroom, and water-closets, &c., in separate blocks, with a disconnecting corridor. The total cost of the new wing was £20,117 11s. 7d. There was a large attendance of visitors, Sir J. T. Hibbert, K.C.B., chairman of the central committee, presiding over the proceedings. The chairman, in accepting the building, said that the northern counties had the highest appreciation of the noble generosity of Lord Ashton who had contributed so largely towards the costs of erection. His lordship had done many generous acts and he trusted that the memory of that day would not be among the least pleasant of his thoughts. He desired to convey the thanks of the committee to his lordship.

Oct. 2nd.

## WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

*Swansea Isolation Hospital.*

THE county borough of Swansea, which has a population of 94,000 persons, is very inadequately provided with isolation hospital accommodation. The Local Government Board has from time to time drawn the attention of the corporation to the necessity for very considerably increasing the accommodation in the existing hospital with its 20 beds, and more than three years ago the medical officer of health (Mr. Ebenezer Davies) reported in some detail on the subject. In that report Mr. Davies advised the erection of an administrative block, four ward pavilions with 12 beds in each, and an observation block containing four two-bed wards, giving a total accommodation for 56 patients. A site five and a half acres in extent belonging to the corporation has been suggested as suitable for the erection of these buildings, and it is anticipated that they will now be proceeded with. The experience of Swansea as regards small-pox outbreaks has been satisfactory, for it has been found possible to isolate, even with the existing meagre facilities, every case as it occurred. Quite otherwise has it been with scarlet fever, diphtheria, and typhoid fever; the proportion of admissions to hospital to cases in these diseases has been very small indeed. In the year 1900 the death-rate from diphtheria in Swansea was 0.64 per 1000, a rate only exceeded in two of the 33 great towns, Leicester and Sheffield.

*Colliery Surgeons.*

Speaking generally, the colliery surgeons in the Glamorgan-shire coal fields are remunerated by a fixed sum per pound, usually 3d., being deducted from the wages of the men employed at the particular colliery concerned. For this sum the surgeon provides everything required in the conduct of his practice. In Monmouthshire, although a poundage is deducted from the colliers' earnings, a committee receives the amount and pays therefrom all the expenses of the practice, such as assistants, drugs, horse hire, and a fixed sum is given to the surgeon. So long as the men are regularly employed this system works well, but when a strike takes place or for some other reason employment is intermittent, the "doctor's fund" is rapidly depleted. Such a condition has actually occurred at Blaenavon, where one principal surgeon, two assistants, and a dispenser are engaged by the committee, and where there is a dispute pending between the colliers and the masters. The men employed at a certain set of collieries in the Rhondda Valley have decided by a ballot to adopt the Monmouthshire system, and instead of paying as they have hitherto done a threepenny poundage direct to the colliery surgeon this sum will be paid over to a committee, who propose to pay a surgeon at the rate of £416 per annum, to provide him with a house and a horse and carriage, to pay for drugs and incidental expenses, and also to engage a dispenser and a nurse. This is not the first colliery in the Rhondda valleys to adopt the

committee system, for nearly three years ago the colliers employed at Ferndale were able to choose between paying a poundage to Mr. T. W. Parry, who has been surgeon to the colliery since the first pits were sunk 20 years ago, or paying a levy in support of the surgeon engaged by a committee of the workmen. In this case the majority of the men are attended by Mr. Parry.

#### *Public Health Questions at Cardiff.*

In his report for the second quarter of the year the medical officer of health of Cardiff (Dr. E. Walford) states that during the three months under review eight vessels entered the port from plague-infected and plague-suspected ports and that he examined 281 persons with negative results. About 325 rats were caught and destroyed during the same period upon vessels from infected ports. In an additional report upon the British Congress on Tuberculosis Dr. Walford states that he considers that sanitary authorities are not justified in relaxing their efforts to prevent the sale of tuberculous meat and milk, and that he will still continue the practice of condemning the entire carcass of an animal which has suffered from generalised tuberculosis and of the portion affected where the disease is localised.

#### *Meat Inspection at Swansea.*

The Swansea Butchers' Association desire that the corporation meat inspector, who is a qualified veterinary surgeon, shall be instructed to permit the owners of meat which he has seized to call in expert opinion upon their behalf. The corporation have very properly declined to limit the discretion of their inspector, who, it appears, invariably complies with any request for such an opinion.

#### *Bristol Royal Infirmary.*

The half-yearly meeting of the governors of the Bristol Royal Infirmary was held on Sept. 24th under the presidency of the Dean of Bristol. The report stated that for the first six months of 1901 there had been 1495 in-patients admitted, an increase of 23 compared with 1900. The out-patients numbered 15,803, compared with 15,745 for the corresponding period of last year. 286 patients had been sent to the Royal Victoria Convalescent Home. The financial statement showed that during the half-year the expenditure amounted to £7558, as against £7736 for the first six months of 1900. The chairman stated that it had been decided to form a distinct bacteriological and pathological department at the infirmary and that the drainage of the institution was being improved.

Sept. 30th.

### SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Resignation of Dr. D. Yellowlees.*

DR. DAVID YELLOWLEES, who has for 27 years been physician-superintendent of the Glasgow Royal Asylum for Lunatics, has signified his resignation to the committee of management. The regret caused by this position is heightened by the knowledge that this step has been forced upon Dr. Yellowlees by failing eyesight, and every good wish for restored health will follow him into his retirement. In addition to his special work in connexion with the management and treatment of the insane Dr. Yellowlees has for many years been lecturer on insanity in the University of Glasgow, a position which he has filled with great distinction. Quite recently he was for three successive years elected President of the Faculty of Physicians and Surgeons of Glasgow. He has also largely interested himself in various social and philanthropic movements, and his retreat into private life will cause a gap in many local organisations. The committee of the asylum have appointed him honorary consulting physician and have placed on the minutes an appropriate expression of their sense of the value of his services and a resolution of regret at his resignation. The appointment is worth £1000 per annum with a free house at the institution.

#### *The Prevention of Consumption.*

As a result of the public meeting held in Glasgow in March last a local branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis has been formed in Glasgow. The Duke of Argyll has consented to act as patron and the Lord Provost as president. The

vice-presidents include the Duke of Hamilton, the Duke of Montrose, the Earl of Home, Lord Blythswood, Lord Kelvin, and Lord Inverclyde. The executive council, consisting of a number of representative citizens presided over by the Lord Provost, have issued an appeal for public support. Admission to membership is to be obtained on payment of a small subscription. The honorary treasurer is Mr. Robert Gourlay, LL.D.

#### *Lunacy in Scotland.*

The annual report of the Commissioners in Lunacy for Scotland states that during 1900 the number of insane persons was increased by 246 as compared with the year 1899. Of the 15,899 certified lunatics, 2395 are maintained from private sources, 13,458 by parochial rates, and 46 at the expense of the State. It also appears from the report that 21 per cent. of the patients who had been liberated on probation since 1862 had been replaced before the close of the period of probation in the asylum from which they had been liberated.

#### *The Carnegie Trust.*

A meeting of the Carnegie Trust was held on Sept. 30th. A number of applications from students for the payment of class fees were dealt with, and it is expected that the decision of the Trust will be communicated to the applicants in the course of the next fortnight. In view of the fact that this is the first year in which the Trust has been instituted, and that a certain number of students may therefore have failed to observe the date fixed by the committee for the reception of applications, it was decided to extend the time to Oct. 15th, when the list will be finally closed for the winter session. Mr. Carnegie has indicated his readiness to assist yet another educational institution—namely, the Glasgow and West of Scotland Technical College. The estimate for rebuilding this was placed at £150,000, towards which £100,000 have been subscribed. Mr. Carnegie is willing to give one-half of the deficiency upon condition that the other half is promptly raised.

#### *The Water-Supply of Glasgow.*

A handsome volume giving a complete historical account of this subject has just been completed by Sir James D. Marwick, LL.D. It provides a graphic and continuous narrative of the means adopted to obtain a water-supply for the city from the earliest period of record. Naturally the most interesting part is that dealing with the provision of water from Loch Katrine. The works in connexion with this supply were commenced in 1856 and completed in 1859 at a cost of nearly £1,000,000. The book contains useful maps showing the positions of the reservoirs, lines of aqueducts, and so on.

Oct. 1st.

### IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *The Commencement of the Medical Session in Dublin.*

ON Oct. 1st work was commenced in all the medical schools and clinical hospitals of Dublin. The Royal College of Surgeons in Ireland has announced the opening of its school and of its preliminary examinations. The autumn examinations of the Royal University of Ireland are in progress. At the Meath Hospital and County Dublin Infirmary (one of the oldest clinical hospitals in Ireland) Mr. William Taylor will deliver the inaugural address on Oct. 14th, thus formally beginning the session there. At the Mater Misericordiae Hospital, which is much the largest clinical hospital in Ireland, the junior classes met for clinical lectures on Oct. 1st. The medical board of St. Vincent's Hospital have also just issued invitations for the address introductory to the medical session to be delivered by Dr. M. F. Cox on Oct. 8th. Sir Christopher Nixon of the Mater Misericordiae Hospital and Dr. Cox of St. Vincent's Hospital are both senators of the Royal University of Ireland and have recently given evidence at the meeting of the Royal Commission.

#### *Armagh Guardians and the Local Government Board.*

ON Sept. 9th the Armagh Guardians passed a resolution to the effect that in their opinion certain remarks made by the Local Government Board inspector, Mr. Agnew, about Mr. R. T. Heron, medical officer of the board, were uncalled for, and that the inference drawn by the Local Government Board from his remarks was unjust, and calling on the Local Government Board to withdraw the portion of the

letter referring to Mr. Heron. In reply to this a letter was read from the central authority in Dublin at a meeting of the Armagh Guardians on Sept. 24th, stating that Mr. Heron's attendances at the workhouse, as shown for a long time by the inspector's reports, had not been in accordance with the workhouse rules, and finding fault with the dietary of nursing mothers and infants and pointing out that the order to diet them according to their individual requirements had a wider significance than that given to it by the medical officer. After this communication was read a resolution was unanimously passed by the guardians stating that it was not in their opinion a satisfactory reply to their resolution and calling upon the Local Government Board to withdraw the unjust censure of their medical officer.

*The Proposed New Board-room for the Belfast Guardians.*

The Local Government Board have sent a letter to the Belfast Guardians, which was read at their meeting on Sept. 24th, adhering to their decision to refuse to sanction the expenditure of a sum of £13,500 on a board-room and offices as being an unprecedented sum in their experience. An amusing bit of fun is poked at the guardians in this letter by the Local Government Board stating that "the cubic capacity of the proposed board-room for the accommodation of 60 guardians is said to be about equal to that of the House of Commons at Westminster, and the furniture and fittings for the board-room were to be provided at an estimated cost of £700." After an animated scene it was decided to hold over the letter for a week.

*The Registrarship of Queen's College, Belfast.*

The Registrarship of Queen's College, Belfast, is now vacant through the resignation of Professor J. Purser. The appointment is worth £75 per annum with a college residence (coal and gas included). The Lord Lieutenant has intimated that he is prepared to consider any application for the office that may be submitted by professors of the College who desire to become candidates for the position. Up to the time of the appointment of Professor Purser the post was held by an official who was not a professor.

*The Royal Commission on Irish University Education.*

The first session of the Royal Commission on Irish University Education terminated on Sept. 28th. A great many witnesses (23) have already been examined and the minutes of evidence in the official report will, it is said, be available for the public in a few weeks. It has been arranged that the next session of the Commission will not take place until this volume of evidence has been published and adequate time has elapsed for its consideration. The Commission will probably meet again in Dublin towards the end of November for the consideration of matters relating to technical education. They will sit in London on Dec. 17th for a few days and afterwards in Ireland, at places and times not yet fixed, but probably beginning in Belfast after Christmas. Exception is still very strongly taken by the Irish press to the proceedings of the Commission being held in private on the ground that the evidence is practically buried and that not one in a thousand of those who would have read it with interest in the daily newspapers will now ever have a chance of perusing it. There is such diversity of opinion on the education question in Ireland that the public are entitled to know what is going on in the matter. Had the Commission been composed, as is usually the case, of unbiased experts publicity might not have been necessary, but this is not the case in the present extraordinarily-constituted body, and hence the very great importance of removing the suspicion which not only exists but which has become intensified, and of allowing the "man in the street" to know what is going on. The proceedings at the 1884 Commission on the Queen's Colleges and at the Intermediate Education Commission were both conducted in public.

Oct. 1st.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

*The Association Tonkinoise.*

A VERY interesting medical charity has been at work in France for about 12 years. It is little known, however, even in France, but owing to an article recently published in the *Presse Médicale* the nature of the services

which this association renders has been made public. Its special work is to provide convalescent homes to colonial soldiers who have returned to France feeble and in ill-health after their term of service has expired. It was founded in 1888, under the name of the *Association Tonkinoise*, with the original object of uniting in a friendly association the veterans of the Indo-China War, but to-day its action extends throughout all the military colonies. A hospital of 50 beds has been founded at Nancy, destined especially for the inhabitants of Alsace-Lorraine, who, having deserted their province owing to its having become German, with the intention of entering the French army, find themselves on leaving their regiment in ill-health and out of work. From this hospital they go out relieved and provided with a situation. At Paris the association has founded an institution containing 25 beds, together with a refectory, and since 1892, when this hospital was opened, some 10,000 men have passed through it, with a mean stay in the hospital of five days. At Bordeaux and at Marseilles and in the other chief seaports local committees have been organised who look after sick colonial soldiers and see that they are duly helped. The headquarters of the society, however, is the large convalescent institution at Sèvres. This is an old eighteenth-century chateau which formerly belonged to the Marquise de Pompadour. It is in a beautiful situation on the banks of the Seine, standing in a large park and commanding a view of Paris. It was handed over to the society by Madame Fürtado Heine. Discharged colonial soldiers who have returned suffering from anæmia or the various fevers may stop here without any expense to themselves for one or two months. Convalescent colonial soldiers who have not completed their term of regimental service are also received, supposing, that is, that they have no family or home to go to during the time of their convalescence. Civilian explorers are also received provided that they have no means upon their return to France. The house is in thorough sanitary condition, is well lighted and ventilated, is kept beautifully clean, and its hygienic condition is constantly kept in perfection. The régime of the house is almost military, and everybody upon his arrival is allotted a position in conformity with his military grade. Everybody is in uniform; everybody must work. Private soldiers are put to manual labour and non-commissioned officers do clerks' or overseers' work. When the new chair of Colonial Pathology, together with its special hospital service in Paris, shall have been put into working order this hospital at Sèvres will be attached to the chair as a convalescent hospital, and in this way there will be a very complete medical organisation for colonial soldiers who have returned to France in ill-health.

*Official Instructions with regard to the Fight against Tuberculosis.*

The Ministers in charge of various Government departments have begun their fight against tuberculosis and various instructions have already been published. The Minister of War, acting upon a report of the Technical Committee of Health, has just issued instructions that zinc spittoons should be placed in all the barracks in the proportion of two spittoons to each room, while an extra large one is to be placed on every landing of the staircase. Sentry-boxes are also to be provided with them and every regiment has to procure these spittoons at its own expense. The Minister of Public Works has issued a circular to the railway companies in regard to cases of tuberculosis among the employés which is the complement of those already sent out in reference to the hygiene of railway carriages and railway stations. The railway companies are required to submit every person applying for a post on their staff to a very rigorous medical examination, and anyone who is suspected of tuberculosis, or who even appears likely to contract the disease, is not to be admitted to the staff. Those who are attacked with tuberculosis after being taken in the service of the company must, if their cases be slight, be given a change of work. For instance, railway servants employed in offices shall be given some work which will occupy them in the open air. The Minister does not recommend the companies to build special sanatoria, for, as he says, their usefulness has not been absolutely demonstrated so far.

*The War against Mosquitoes.*

The Council of Hygiene and Public Health of the Department of the Seine in pursuance of a resolution passed by the Academy of Medicine with reference to a study of the means

for destroying mosquitoes in Paris has recommended the following precautions to be taken :—

1. All drains and gully-pipes, especially those in the street as well as those in Paris houses, must be carefully inspected so as to avoid any stagnation of their contents. Pipes should be inspected week by week and any collection of insects destroyed either by fire or else by being well swept out with lime.
2. All latrines and water-closets should be kept strictly clean and no collection of insects of any kind whatever should be allowed to remain therein.
3. Collections of standing water in gardens and courtyards should by no means be permitted, and this regulation must be strictly observed in places where men are collected together, such as hospitals, prisons, barracks, and the like.
4. All collections of water, such as fountains, together with their basins, in public streets should be carefully emptied and cleaned at least once a week. In connexion with water of greater size, such as lakes and ponds, as many fish as possible should be kept.
5. Water-tanks and cisterns in private houses should be treated as follows: one gramme of petroleum should be used for every square superficial metre of water, or, if the water is to be used for drinking purposes, olive oil should be used in the same quantities.
6. In quarters known to be infested with mosquitoes the inhabitants are especially recommended to use a mosquito-net.
7. With regard to mosquito bites, the best thing to apply is a drop of tincture of iodine or a drop of a 1 per cent. solution of guaiacol.

With reference to the subject of mosquitoes and malaria Médecin-Major Billet has laid before the Academy of Science a very interesting paper in confirmation and explanation of the fact already reported by Monsieur Laveran that in Algeria, and particularly in the province of Constantine, cases of malaria which occurred in patients hitherto unaffected are always noticed in the latter days of the month of June, thus coinciding with the appearance of mosquitoes belonging to the anopheles species which are looked upon as the principal agents in spreading the hæmatozoa of malaria. Monsieur Billet noticed that the mosquitoes began to appear between June 15th and 21st, and on examining them he found in their stomachs malarial sporozoa. Between June 26th and July 1st the military Hospital at Constantine received patients suffering from malaria who came from barracks in the exact locality where the mosquitoes had appeared. All the cases were, without exception, cases of malaria in patients who had never had it before—that is to say, they were young soldiers recently come from France who had entered the army in the month of November, 1900, and in addition in all of them examination of the blood revealed the presence of hæmatozoa peculiar to a first attack of malaria.

Oct. 2nd.

## ROME.

(FROM OUR OWN CORRESPONDENT.)

### *Bubonic Plague at Naples.*

THAT Naples should for so long have escaped a visitation of the plague is a matter for some surprise when it is remembered how constant and extensive is its intercourse with the infected ports of Egypt and the East. That this immunity was due more to good fortune than to the vigilance of the authorities has been freely suspected and now appears to be confirmed by the report that cases of so-called adenitis have existed at Punto Franco and have been treated in the neighbouring hospitals since, at any rate, the end of August. It was not, however, till the morning of Sept. 23rd that the authorities were notified of these suspicious cases and of the fact that a great mortality was occurring amongst the rats in the port. The provincial medical officer of health was at once despatched to investigate and to take the necessary precautions. A number, not yet definitely declared but said to be about a dozen, of cases are reported to have already shown themselves amongst the labourers engaged in unloading cargoes at the docks. Some weeks ago one of these men had gone to the Pellegrini Hospital on account of a swollen inguinal gland. The medical officer on duty failed to diagnose its nature and treated the ailment as a simple adenitis. Nor did the death of the patient, which occurred a few days later and was ascribed to strangulated hernia, rouse any suspicion of plague. Some days afterwards another labourer complaining of similar symptoms was admitted at the Incurabili Hospital, where he too died, as was supposed at the time, from typhlitis and perityphlitis. These facts and others of a similar kind, together with the large mortality amongst the rats, came accidentally to the knowledge of Dr. Sorge, surgeon to the Società dei Magazzini, who immediately reported them to the prefect of

the city. The bacteriological examination of material both from the patients and from the rats leaves no doubt of the disease being plague. The exact origin of the outbreak will now be very hard, if not impossible, to determine, and the adoption of efficient prophylactic measures will be correspondingly difficult. The sewers of Punto Franco are independent of those of the city, and it is hoped that this may enable the authorities, by destroying all the rats in them, to prevent an extension of the disease by means of these rodents. But, unfortunately, the labourers who have presumably come in contact with the infection are only partly resident in Naples, the greater number being unattached and coming and going frequently according to the amount of work to be done. It is thus possible that the infection has already been carried by these latter to other localities. Meanwhile, all those known to have had contact with plague patients have been isolated and the patients themselves, together with their families, have been conveyed to the lazaretto of Nisido. Their houses are being disinfected and all their clothing, &c., destroyed. All work is suspended at the warehouses and the formidable task of disinfecting the vast stores of merchandise accumulated there has been begun. The Government has ordered large supplies of Yersin's serum from the Pasteur Institute in Paris and of Haffkine's serum from the State Laboratory in the island of Panosa. The energetic steps being taken by the authorities, as well as the generally satisfactory sanitary state of Naples itself, tend to allay the alarm felt at this outbreak of a disease which in past times has so often proved such a deadly scourge amongst the population of Italy. Should the infection unfortunately spread to surrounding towns less favoured in their sanitary conditions the outlook will be much more serious, sunk as so many of their inhabitants still are in ignorance and superstition and with ideas of personal cleanliness and public hygiene little more advanced than when in the Middle Ages the Black Death raged amongst them and swept them away by thousands. Elaborate precautions are being taken at Rome to prevent the importation of the disease into the capital, while at Palermo, Genoa, and other places in close communication with Naples the sanitary authorities are actively bestirring themselves, spurred on, not only by the danger to the public health which such an invasion would carry with it, but also by a knowledge of the grave financial consequences which it would certainly produce at this the commencement of the Italian tourist season.

Sept. 27th.

## NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

### *Some Features in the Case of the late President McKinley.*

SINCE four o'clock of the afternoon of Friday, Sept. 6th, when the news was flashed through the country that President McKinley had been shot down by the hand of an assassin at the Buffalo Exposition, the appalling crime has been the one absorbing topic of interest. President McKinley at the time of the shooting was receiving the people in the Temple of Music at the Pan-American Exposition. The crowd was passing in front of him in single file and he was shaking hands with each member in turn when a man appeared who had his right hand, apparently injured, held up to his breast, with a handkerchief arranged in such a manner as to create the impression that it was bandaged. Upon arriving opposite to the President, whose hand was extended, the miscreant fired two shots from a pistol concealed by the handkerchief, wounding the President in two places. The automobile ambulance attached to the emergency hospital was quickly on the spot and the injured President was conveyed with all possible celerity to that institution, arriving at 4.14 P.M. The principal surgeons of Buffalo were sent for, as well as Dr. Rixey, the President's personal medical attendant. At five o'clock, an hour after the occurrence, Dr. Matthew D. Mann arrived, closely followed by Dr. Mynter and Dr. Parmenter. At 5.30 P.M. Dr. Rixey arrived and without further delay the operation was commenced by Dr. Mann, assisted by Dr. Mynter, Dr. Parmenter, and Dr. Lee. One bullet, it was found, had occasioned but slight injury; it had struck the sternum, producing a simple contusion. The other had gone through the abdomen five inches below the nipple and one and a half inches to the left of the median line. The abdomen was opened by an

incision including the point of entrance of the bullet, when it was discovered that the anterior and posterior walls of the stomach had been penetrated. The holes were closed by silk sutures. Further examination failed to disclose that other important organs had been injured, nor could the course of the bullet be traced beyond the posterior wall of the stomach. The bullet was not found. Towards the end of the operation Dr. Roswell Park, who had been at Niagara Falls, arrived upon the scene. The President, who had stood the anæsthetic and operation well, was removed from the hospital to the house of Mr. Milburn. The progress of the distinguished patient, judging from the bulletins given out by the medical attendants, was for four days remarkable; so much so, indeed, that the surgeons who performed, and were present at, the operation, together with Dr. McBurney of New York, who had been called in as consultant, declared it to be their opinion that recovery might be sanguinely anticipated. Throughout the case the bulletins were exceptionally hopeful and cheering, and the American public had begun to regard a favourable result as certain when alarm was spread by the news that a second slight operation had been deemed necessary. This was, however, explained away as being of no serious nature, and again the reports pointed to a successful issue. On the morning of Friday, Sept. 13th, this hopeful outlook was wholly altered, and ominous misgivings were created by the news that the President had experienced a severe attack of heart failure in the night, almost amounting to collapse. From that time until his death, which occurred at 2.15 A.M. on Saturday, Sept. 14th, he sank gradually, the latter few hours of his life being passed in a state of unconsciousness. The symptoms of heart failure were, it is said, attributed by the medical men in attendance on the President not directly to the wounds but to the fact that the heart was in that condition known as tobacco heart. Consequently the result of the necropsy was eagerly awaited by the American medical profession. The necropsy—which was made on Saturday, Sept. 14th, nine hours after death—was performed by Dr. Harvey D. Gaylord, and Dr. Herman G. Matzinger of the New York State Laboratory. There were also present Dr. McBurney and Dr. Edward G. Janeway of New York, W. P. Kendall (Surgeon, United States Army), Edward L. Munson (Assistant Surgeon, United States Army), Dr. W. W. Johnson of Washington, Dr. Charles Cary, and Dr. Hermanns L. Baer, in addition to the surgeons who were in attendance throughout the case. The official report of the necropsy is as follows:—

The bullet which struck over the breastbone did not pass through the skin and did little harm. The other bullet passed through both walls of the stomach near its lower border. Both holes were found to be perfectly closed by the stitches, but the tissue around each hole had become gangrenous. After passing the stomach the bullet passed into the back walls of the abdomen, hitting and tearing the upper end of the kidney. This portion of the bullet-track was also gangrenous, the gangrene involving the pancreas. The bullet has not yet been found. There was no sign of peritonitis or disease of other organs. The heart walls were very thin. There was no evidence of any attempt to repair by nature and death resulted from the gangrene which affected the stomach around the bullet wounds as well as the tissues around the further course of the bullet. Death was unavoidable by any surgical or medical treatment and was the direct result of the bullet wound.

It is conceded on all sides that the operation performed by Dr. Mann was both proper and brilliant. Nevertheless, the findings of the necropsy have revealed the truth that it did not go far enough. That the illustrious sufferer's life could not in any event have been saved the results of the necropsy show, and probably time was too valuable to be spent in a longer examination, but there would seem to be no doubt that the surgeons who performed and assisted in the operation were unaware of the injury to the kidney. The optimistic tone of the bulletins is a proof that the surgeons were sanguine of a favourable termination, though considerable comment was caused by the failure to locate the bullet. The cause of the gangrene along the entire bullet-track is also a matter which is arousing much discussion in medical circles. That the bullet was poisoned is a theory which has been mooted in many quarters, and, as might be expected, the notorious yellow journals have seized upon this suggestion with ghastly avidity. The likelihood, according to others, is that the bullet having been fired from a pistol of small penetrating power, the missile may have carried with it infection from the President's clothing, the germs of which had the opportunity of finding a nidus owing to the comparatively small velocity of the bullet. However, the publication of the further official reports of the necropsy may

clear up this point. It is worthy of note that the temperature of the patient was never very high, a fraction above 102° F. being the highest mark reached, but, on the other hand, the pulse was always rapid, while the respiration too was quick. The official reports of the surgeons in attendance on the President will be published in the principal medical journals of the country. It may be said that one New York paper has persistently given out that grave disagreement existed between the surgeons who attended President McKinley. So outrageous did its assertions to this effect become that the surgeons in question were compelled in self-defence to issue a contradictory statement, declaring that a very unusual harmony of opinion and action prevailed among them all through the case. Pending the completion and publication of the official reports of the post-mortem examiners no further statements for publication will be made by them.

#### *Seasonal Variations in the Growth of Boys.*

Some interesting observations have been made in an institution in Boston on the variations in the growth of boys between the ages of seven and 14 years. Once each week all the children were stripped and weighed, and their heights were measured every three months, except in the third quarter, which occurred in holiday time. 20 out of 30 boys remained in the home during the year, and these only are considered in the report. 1. Variations in weight amounting in some cases to as much as five pounds were observed in the boys, for the most part, from week to week. These variations were so numerous that it was suggested that any single test of an individual is liable to a plus or minus error of several pounds, and that successive weighings are necessary for accuracy. 2. Over 90 per cent. of the total increase in weight occurred during the period from June to December. 3. The fluctuations in weight were much more marked during the period of minimum growth, which seemed to indicate that there was less resistance to external influences during this time and that on the whole the vitality of the child was at a lower level. 4. A preliminary study of the weather conditions in connexion with these curves of growth showed that rainfall, temperature, and barometric pressure had slight, if any, influence. Humidity, on the other hand, seems to have had some influence during the period of minimum growth. 5. The general form of the curve of growth in weight was found common to all individuals studied, covering the ages from seven to 14 years. The larger minor fluctuations were found to be common to the majority of the boys, suggesting that the causes were general rather than individual, and that growth throughout this age-period has the same general seasonal variation. 6. Growth in height in the majority of cases showed either a continuous increase at the same rate throughout the year or more rapid growth during the period of most rapid increase in weight.

#### *Malaria a Notifiable Disease.*

The New York City Board of Health has adopted resolutions to the effect that the officers of "public institutions, hospitals, homes, asylums, &c., be required to report all cases of malarial fever which come under their observation, giving the name, age, sex, occupation, and present address of the patient," and "also information as to whether the attack is a primary infection or a relapse, and the address where the disease was probably contracted"; also "that all physicians in the city of New York be requested to furnish similar information in regard to patients suffering from malarial fever under their care."

Sept. 23rd.

UNIVERSITY COLLEGE, BRISTOL.—The session 1901-2 will commence on Oct. 8th, when the inaugural address will be delivered by the Bishop of Bristol on "The Responsibilities of Inheritance."

HOSPITAL SATURDAY FUND: ST. JOHN AMBULANCE CLASSES.—Classes in first aid to the injured for men and women under the tuition of the honorary surgeons of the St. John Ambulance Association will be held at the offices of the Fund, 54, Gray's-inn-road, London, W.C., on Wednesday and Saturday afternoons. The first-aid class for men has commenced already. The first-aid class for women will commence on Oct. 12th, a lecture being delivered at 4 P.M. Instruction in bandaging, &c., will be given at 5 P.M. After Christmas nursing classes will be held for men and for women.

## Medical News.

**UNIVERSITY OF DURHAM.**—In the Faculty of Medicine the following candidates have been successful in the third examination for the degree of Bachelor in Medicine under the new regulations:—

*Second-class Honours.*—Chella Mary Hankin, London School of Medicine for Women, and Arthur Gibson Dunn and Charles Harold Crass, College of Medicine, Newcastle-upon-Tyne.

*Pass List.*—Thomas Engelhart Amyot and Robert Story Brown, College of Medicine, Newcastle-upon-Tyne; Annie Tombleson Brunyate, London School of Medicine for Women; Ambrose Harold Bateman, William Morton Emmerson, and Francis Jollie Gowans, College of Medicine, Newcastle-upon-Tyne; Bryden Glendinning, Guy's Hospital; James William Gibson, Daniel Richard Guns, William George Thomas Hepplewhite, and Lizzie Evelyn Kendal, College of Medicine, Newcastle-upon-Tyne; Flora Murray, London School of Medicine for Women; Thomasina Georgina Prosser, Briton Smallman Robson, and Joseph Collingwood Stewart, College of Medicine, Newcastle-upon-Tyne; Marmaduke Cordeaux Wetherell, Guy's Hospital; and Auburn Lawrence Wilkinson and John Robert Wylie, College of Medicine, Newcastle-upon-Tyne.

**FOREIGN UNIVERSITY INTELLIGENCE.**—*Berlin*: Dr. J. Friedenthal has been recognised as *privat-docent* of Physiology.—*Breslau*: Dr. R. Sticher has been recognised as *privat-docent* of Midwifery and Gynaecology.—*Chicago* (*College of Physicians and Surgeons*): Dr. L. Blake Baldwin has been appointed to the Chair of Dermatology.—*Copenhagen*: Dr. Pontoppidan has been appointed to succeed the late Dr. Gædeken in the chair of Forensic Medicine and Hygiene.—*Cracow*: Dr. Chlumsky has been recognised as *privat-docent* of Surgery.—*Florence*: Dr. Pietro Imbriaco has been recognised as *privat-docent* of Operative Medicine.—*Freiburg*: Dr. Axenfeld of Rostock has been appointed Professor of Ophthalmology in succession to Dr. Manz, resigned.—*Göttingen*: Dr. W. Weber has been recognised as *privat-docent* of Psychiatry.—*Groningen*: Dr. Hamburger of Utrecht has been appointed Professor of Physiology in succession to Dr. Huizinga, resigned.—*Halle*: Dr. Ernst Ziemke has been appointed Extraordinary Professor of Forensic Medicine.—*Heidelberg*: Dr. Brauer has been appointed Extraordinary Professor of Medicine, Dr. Ferdinand Petersen Extraordinary Professor of Surgery, and Dr. Siegfried Bettmann Extraordinary Professor of Dermatology.—Dr. Julius Hegener has been recognised as *privat-docent* of Otolaryngology, and Dr. Martin Jacoby as *privat-docent* of Pharmacology.—*Iurieff* (*Dorpat*): Dr. Blauberg has been recognised as *privat-docent* of Toxicology.—*Jena*: Dr. Grober has been recognised as *privat-docent* of Internal Medicine, and Dr. Hans Berger has been recognised as *privat-docent* of Psychiatry.—*Leipsic*: Dr. H. Füh has been recognised as *privat-docent* of Gynaecology; a new pathological institute, which will include a department for forensic medicine, is to be erected in the Liebig Strasse.—*Leyden*: Dr. van Walsam has been appointed Professor of Pathological Anatomy in succession to the late Dr. Siegenbeek van Heukelom.—*Lund*: Dr. M. J. C. A. Forsman, Lecturer on General Pathology, has been appointed Extraordinary Professor.—*Munich*: Dr. Albert Jodlbauer has been recognised as *privat-docent* of Medical Pathology.—*Naples*: Dr. A. Cantani has been recognised as *privat-docent* of Medical Pathology, Dr. S. del Vecchio as *privat-docent* of Surgery, Dr. Lorenzo Mandalari as *privat-docent* of Psychiatry, and Dr. Antonio Reale as *privat-docent* of Dermatology.—*Padua*: Dr. Giuseppe Iona and Dr. Alberto Luzzatto have been recognised as *privat-docenten* of Medical Pathology and Dr. Cesare Merletti as *privat-docent* of Midwifery and Gynaecology.—*Pennsylvania*: Dr. Thomas R. Neilson has been appointed Assistant Professor of Genito-Urinary Diseases.—*Pisa*: Dr. E. Benvenuti has been recognised as *privat-docent* of Medical Pathology.—*Prague* (*German University*): Dr. O. Pittl has been recognised as *privat-docent* of Otolaryngology.—*Prague* (*Bohemian University*): Dr. Karl Weigner has been recognised as *privat-docent* of Anatomy, and Dr. R. Jedlicka as *privat-docent* of Surgery.—*Rome*: Dr. A. Marracino of Naples has been recognised as *privat-docent* of Medical Pathology; Dr. Tito Guadi has been recognised as *privat-docent* of Experimental Hygiene.—*Rostock*: Dr. Peters of Bonn has been offered the chair of Ophthalmology; Dr. W. Müller of Aix-la-Chapelle has been appointed Professor of Surgery in succession to Dr. Graser.—*Stockholm*: Dr. Johan Erik Johansson has been appointed Professor of Physiology.—*Strasbourg*: Dr. F. Weidenreich has been recognised as

*privat-docent* of Anatomy.—*Turin*: Dr. Calvini has been recognised as *privat-docent* of Surgery.—*Vienna*: Dr. Friedrich von Sölder has been recognised as *privat-docent* of Neurology and Psychiatry. Dr. H. Joseph has been appointed Lecturer on Zoology and Comparative Anatomy and Dr. Guido von Török as Lecturer in Surgery.—*Würzburg*: Dr. Jacob Riedinger has been recognised as *privat-docent* of Surgery and Dr. Paul Römer as *privat-docent* of Ophthalmology.—*Zürich*: Dr. Max Cloëtta, *privat-docent* of Pharmacology, has been promoted to an Extraordinary Professorship.

### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

The deaths of the following eminent foreign medical men are announced:—Dr. J. A. Winter, Extraordinary Professor of Pharmacology in Leipzig and editor of the Schmidt's Jahrbücher.—Dr. I. Salas, Professor of Physiology in San Luis, Potosi.—Dr. Sharginyan, *privat-docent* of Gynaecology in the University of Moscow, aged 42 years.—Dr. Th. M. Markoe, formerly Professor of Surgery in the College of Physicians and Surgeons, New York.—Dr. Vaucher, formerly Professor of Midwifery in Geneva.

**SACCHARIN IN BEER.**—A firm of brewers were summoned before the Coventry City Petty Sessions on Sept. 11th for using coal-tar saccharin in the manufacture of beer, a practice which was contrary to the Inland Revenue Act, 1888, and was prohibited by a notice published in the *London Gazette*. The proportion of saccharin contained in separate samples of beer collected in the defendants' brewery last May was respectively 1.10 grains, 0.89 grain, and 1.40 grains per gallon. It was estimated that the loss to the Revenue from the use of saccharin by the defendants was about £1000 per annum. Penalties amounting to £90 were imposed, together with £14 8s. costs.

**CONGRESS OF CRIMINAL ANTHROPOLOGY.**—The Fifth International Congress of Criminal Anthropology was opened at Amsterdam on Sept. 9th with an address by M. Van Hamel, the President. Mr. Havelock Ellis, the English delegate, and Mr. Clark Bell of New York were appointed vice-presidents. Professor Lombroso read papers on Degeneration, the Practice of Tattooing by Criminals, and the Remedial Possibilities of Symbiosis. Dr. Piepers read a paper on the Idea of Crime. M. Scipio Sighele of Brussels delivered an address on Collective Crime. He considered that the individuals composing crowds were not always responsible for their acts. On Sept. 10th the proceedings consisted mostly of a discussion on Degeneration and Criminality, the speakers including M. Winkler of Amsterdam, Dr. Garnier of Paris, and Signor Ferri of Rome. The afternoon sitting was presided over by M. Drill, counsellor to the Minister of Justice in St. Petersburg, and the subject of discussion was Juvenile Delinquency. Dr. Garnier of Paris said that offences committed by children, especially murder, were due to the abuse of alcohol by their ancestors, and expressed the hope that States would take measures against the abuse of alcohol. In the evening the members of the Congress were the guests of the students of the University. On Sept. 11th the morning sitting was presided over by Colonel McHardy, Chairman of the Prison Commissioners for Scotland. Signor Ferri read a paper on the Prevention and Repression of Crime and on the Symbiosis of Crime, or the utilisation of the energies of criminals in such a way that least harm was done to the community at large. Part of the day was devoted to a visit to the lunatic asylum at Meerenberg, near Haarlem. On Sept. 12th M. Drill of St. Petersburg spoke upon the responsibility of criminals. He contended that there existed neither a criminal type nor a born criminal, and was of opinion that crime could best be prevented by schools and education generally. Dr. Louise Rabinovitch of New York read a paper on the Duty of States in Preventing the Propagation of Crime, which she said was mostly hereditary. Dr. Wellenbergh of the Hague made some recommendations with regard to penalties in the case of aged first offenders—that was to say, such as were above the age of 70 years. On Sept. 14th the Congress resumed its discussion of the physiological action of criminals. M. Treves of Turin, Professor Benedikt of Vienna, and M. Drill of St. Petersburg taking part. A motion proposed by M. Albanel of Paris was then adopted. It recommended that children breaking the law should be examined before being brought into court, and if found to be degenerate should be placed in special educational establishments. The Congress supported a proposition

introduced by Mr. Macdonald of New York with regard to a combination of a psychical and physical laboratory with the Ministry of Justice at Washington. Señor Falcon of Cuba delivered an address on Interesting Features in Criminals. In his closing speech M. Van Hamel, the president, thanked the delegates to the Congress and observed that England was represented for the first time. It was decided that the next meeting should take place in Turin in 1906.

**VACCINATION GRANT.**—Mr. Henry Harris, L.R.C.P., L.R.C.S. Edin., of Clevedon, Somerset, has been awarded for the second consecutive time the Government grant for successful vaccination.

**PRESENTATION TO A MEDICAL PRACTITIONER.**—Mr. C. F. Laing, M.B., M.S. Glasg., formerly deputy medical superintendent at the County Asylum, Parkside, near Macclesfield, has been the recipient of a presentation of silver plate with an illuminated address from the resident staff of the asylum as a mark of respect and esteem on the occasion of his appointment to the post of medical superintendent at the Somerset and Bath Asylum at Wells.

**ST. JOHN AMBULANCE BRIGADE FOR EXETER.**—A meeting was held at Exeter on Sept. 24th, under the presidency of the mayor, for the purpose of forming a St. John Ambulance Brigade for Exeter. Dr. Vernon, deputy-commissioner, gave an interesting account of the work of the order and mentioned that three attempts to form a division of the brigade in that city had failed. The meeting unanimously resolved to establish a brigade in Exeter and several members were enrolled.

**SOUTHEND HOSPITAL.**—On Sept. 28th the Mayor of Southend opened a new ward at the Victoria Hospital. This new addition to the hospital owes its inception to the generosity of the late Mr. G. F. Frooms, who gave £1200 for the building and £1000 as an endowment, in memory of his late wife. The hospital at Southend was opened in 1887 in honour of the Jubilee of Queen Victoria. On the occasion of the Diamond Jubilee the Nursing Institution and men's wards were added.

**A "CONSCIENTIOUS OBJECTION."**—At Bideford on Sept. 24th a gardener applied for a certificate of exemption from vaccination for his infant on the ground that a niece had suffered from the effects of the operation. Admiral Sir William Dowell told the man that he should read about the outbreak of small-pox in London and the late epidemic at Gloucester; he also said that although the gardener was mistaken he could not refuse to grant the certificate.

**REDRUTH BOARD OF GUARDIANS.**—At the meeting of the Redruth Board of Guardians held on Sept. 27th a communication was received from the Local Government Board informing the guardians that unless they proceeded at once to the division of the union into four districts and the appointment of four relieving officers the Board would have to issue an order directing this to be done. The guardians after discussing the matter decided to inform the Local Government Board that they declined to appoint four relieving officers, as they considered three to be sufficient.

## BOOKS, ETC., RECEIVED.

- BAILLIÈRE, TINDALL, AND COX**, 8, Henrietta-street, Strand, W.C.  
The Pocket Gray or Anatomist's Vade-Mecum. By the late Edward Cotterell, F.R.C.S. Fifth edition, revised, and edited by C. H. Fagge, M.B., M.S. Lond., F.R.C.S. Price 3s. 6d.  
The Diagnosis and Treatment of Diseases of the Rectum. By W. Allingham, F.R.C.S. Eng., and H. W. Allingham, F.R.C.S. Eng. Seventh edition. Price 12s. 6d.
- CHURCHILL, J. & A.**, 7, Great Marlborough-street, W.  
A Manual of Minor Surgery and Bandaging. By Christopher Heath, F.R.C.S., LL.D. Twelfth edition. Revised by Bilton Pollard, F.R.C.S. Price 6s. 6d.  
A Text-book of Medicine. By the late C. Hilton Fagge, M.D., F.R.C.P., and P. H. Pye-Smith, M.D., F.R.S. Fourth edition. Two vols. Vol. I. Price 21s.
- DULAU AND CO.**, 37, SOHO-SQUARE, W.  
Philosophical Transactions of the Royal Society of London: Contributions to the Comparative Anatomy of the Mammalian Eye, chiefly based on Ophthalmoscopic Examination. By George Lindsay Johnson, M.D., F.R.C.S. Price 21s.

- FREE PRESS ASSOCIATION**, Burlington, Vermont, U.S.A.  
Transactions of the Vermont State Medical Society, 1900. Published by the Society (D. C. Hawley, M.D., Secretary).
- GEORGE NEWNES, LIMITED**, Southampton-street, Strand, W.C.  
The Story of Fish Life. By W. P. Pycraft, F.Z.S. Price 1s.
- LEWIS, H. K.**, 136, Gower-street, W.C.  
Elements of Practical Medicine. By Alfred H. Carter, M.D., D.Sc., &c. Eighth edition. Price 10s. 6d.  
Gonorrhoeal Arthritis, its Pathology, Symptoms, and Treatment. By L. Vernon Jones, M.D. Price 2s. 6d.
- LONGMANS, GREEN, AND CO.**, 39, Paternoster-row, E.C.  
Anatomy, Descriptive and Surgical. By Henry Gray, F.R.S. Fifteenth edition, edited by T. Pickering Pick, F.R.C.S., and R. Howden, M.A., M.B., C.M. Price 32s.
- SAMPSON LOW, MARSTON AND CO., LIMITED**, St. Dunstan's House, E.C.  
The Nordrach Treatment for Consumptives in this Country. By James Arthur Gibson. Price 3s. 6d.
- UNIVERSITY PRESS, Cambridge.** (C. J. CLAY AND SONS, Ave Maria-lane, London.)  
Zoology: an Elementary Text-book. By A. E. Shipley, M.A., and E. W. MacBride, M.A. Cantab., D.Sc. Lond. Price 10s. 6d.
- WILSON, EFFINGHAM**, 11, Royal Exchange, E.C.  
Banks and their Customers. By Henry Warren. Fifth edition. Price 1s.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

- ABRAHAM, J. JOHNSTON**, M.B., B.Ch., B.A.O. Dub., L.M. Rotunda, has been appointed House Surgeon to the West London Hospital.
- ALSOPT, T. O. F.**, M.B., M.S. Edin., M.R.C.S. Eng., has been appointed Public Vaccinator for the South-Eastern District, Victoria, and Officer of Health for the Shire of South Gippsland, Victoria.
- BAILEY, J. C. M.**, M.B. Lond., M.R.C.S., L.R.C.P. Lond., has been appointed House Physician and House Surgeon to the West London Hospital.
- BROAD, W.**, M.B., has been appointed Medical Officer to the Hospital at Narrandera, New South Wales.
- DEANS, JOHN**, M.D., has been appointed Public Vaccinator for the South-Western District, Victoria.
- FETHERSTON, R. H. J.**, M.B. Edin., L.R.C.S. Irel., has been appointed Acting Officer of Health for the City of Prahran, Victoria, (temporary).
- FINDLAY, JOHN**, M.B., M.Ch. Aberd., has been appointed Second Assistant Medical Officer, Dorset County Asylum, vice George Potts, L.R.C.P. and S. Edin., resigned.
- HAY, J. B.**, M.B., M.S. Edin., has been appointed Officer of Health for the Shire of Echuca, Victoria.
- HOWSE, N. R.**, F.R.C.S. Eng., V.C., has been appointed Government Medical Officer and Vaccinator at Orange, New South Wales.
- HOYSTEAD, L. N.**, M.R.C.S., L.R.C.P., has been appointed Public Vaccinator for the South-Western District, Victoria.
- NOALL, WM. PAYNTER**, M.B. Lond., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Surgeon to the East London Hospital for Children, Shadwell, E.
- RICHMOND, MARSHALL LEIGH**, L.S.A. Lond., has been appointed Medical Officer and Public Vaccinator to the Mary Tavy District of the Tavistock Union.
- THORNTON, R. G. C.**, M.B., B.A.O., R.U.I., has been appointed District Medical Officer of Wellington (Salop).
- WARNER, ALLAN**, M.D. Durh., M.R.C.S., L.R.C.P., Lond., has been appointed Resident Medical Officer of the Leicester Isolation Hospital.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

- BIRMINGHAM AND MIDLAND EYE HOSPITAL.**—Resident Surgical Officer. Salary £100 per annum, with board and attendance.
- BRIDGNORTH AND SOUTH SHROPSHIRE INFIRMARY.**—House Surgeon. Salary £100, with board and lodgings.
- BRIGHTON, HOVE, AND SUSSEX THROAT AND EAR HOSPITAL**, Church-street, Queen's-road, Brighton.—Non-resident House Surgeon for six months, renewable. Salary at rate of £75 per annum.
- BRISTOL GENERAL HOSPITAL.**—Assistant House Surgeon. Salary £70 per annum, with board, residence, &c.
- BURTON-ON-TRENT INFIRMARY.**—House Surgeon. Salary £120 for the first year and £140 for the second year, with board, furnished rooms, coal, and light.
- CHICHESTER INFIRMARY.**—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

**CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.** Victoria-park, E.—Second House Physician for six months. Salary at rate of £20 per annum, with board, washing, and residence.

**CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.**—Senior House Surgeon, unmarried. Salary £120 per annum, with board, lodging, and washing.

**CORNWALL COUNTY ASYLUM,** Bodmin.—Junior Assistant Medical Officer, unmarried. Salary £120, rising to £150, with board, apartments, laundry, &c.

**COUNTY ASYLUM,** Mickleover, Derby.—Senior Assistant Medical Officer. Salary £130, rising to £150 per annum, with apartments, board, washing, and attendance. Also Junior Assistant Medical Officer. Salary £110, rising to £130 per annum, with apartments, board, washing, and attendance.

**DENBIGHSHIRE INFIRMARY,** Denbigh.—House Surgeon. Salary £100, with board, residence, and washing.

**ESSEX COUNTY ASYLUM,** Brentwood.—Junior Assistant Medical Officer. Salary £140 per annum.

**GLASGOW ROYAL ASYLUM FOR LUNATICS.**—Physician Superintendent. Salary £1000 per annum, with house, coal, gas, and water-supply.

**GRAVESEND HOSPITAL.**—House Surgeon. Salary £90 per annum, with board and residence.

**HAMPSTEAD HOSPITAL,** Parliament-hill, N.W.—Dental Surgeon.

**HOLLOWAY AND NORTH ISLINGTON DISPENSARY.**—Two Honorary Medical Officers.

**HOSPITAL FOR SICK CHILDREN,** Great Ormond-street, London, W.C.—House Surgeon, unmarried, for six months. Salary £20, washing allowance £2 10s. with board and residence; also Surgeon Dentist.

**HOSPITAL FOR WOMEN,** Soho-square, W.—Assistant Physician.

**INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.**—Senior House Surgeon. Salary £100 per annum, with residence, board, and washing.

**LIVERPOOL HOSPITAL FOR CANCER AND SKIN DISEASES.**—Honorary Medical Officer.

**MANCHESTER CHILDREN'S HOSPITAL,** Pendlebury.—Medical Officer. Salary £180 per annum.

**MIDLOTHIAN DISTRICT ASYLUM.**—Assistant Medical Officer, single. Salary £200, with furnished rooms, board, washing, and attendance.

**NORTH-EASTERN HOSPITAL FOR CHILDREN,** Hackney-road, N.E.—House Physician for six months. Salary at rate of £80 per annum, with board, residence, and laundry.

**NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL,** Hartshill, Stoke-upon-Trent.—House Physician. Salary £100 per annum, increasing £10 per annum, with furnished apartments, board, and washing.

**NORTH WALES COUNTIES LUNATIC ASYLUM,** Denbigh.—Second Assistant Medical Officer. Salary £120 per annum, rising to £160, with board, residence, and washing.

**PADDINGTON GREEN CHILDREN'S HOSPITAL,** London, W.—House Physician, also House Surgeon, both for six months. Salary at rate of 50 guineas a year, with board and residence.

**ROYAL CORNWALL INFIRMARY.**—House Surgeon, unmarried. Salary £100, increasing by £10 a year, with board and apartments.

**ROYAL FREE HOSPITAL,** Gray's Inn-road, W.C.—House Physician (Male) and Casualty House Surgeon (Male), both for six months. No salary, but board, &c., provided. Also Resident House Physician (Female) and Resident House Surgeon (Female) both for six months. No salary, but board, &c., provided.

**ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST,** Ventnor.—Resident Medical Officer, unmarried. Salary £150, with board and lodging.

**ROYAL VICTORIA HOSPITAL,** Belfast.—Medical Superintendent. Salary £300 per annum, with board and apartments.

**ST. MARY'S HOSPITAL,** Paddington, W.—Casualty Physician. Salary £75 per annum.

**STAFFORDSHIRE GENERAL INFIRMARY,** Stafford.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

**STIRLING DISTRICT ASYLUM,** Larbert, N.B.—Junior Assistant Medical Officer. Salary £100, with board, &c.

**TEIGNMOUTH HOSPITAL,** S. Devon.—House Surgeon. Salary £70 a year, with board, lodging, and washing.

## Births, Marriages, and Deaths.

### BIRTHS.

**FALLA.**—On Sept. 29th, at Adelaide Lodge, St. Heliers, Jersey, the wife of Walter Falla, M.R.C.S., L.R.C.P., of a daughter.

**MADDEN.**—On September 19th, at Cairo, the wife of Frank Cole Madden, F.R.C.S., of a son.

**MUDIE.**—On Sept. 28th, at York Lodge, West Norwood, the wife of Arthur Mudie, L.R.C.P. Edn., L.R.C.S. Edin., L.F.P.S.G., of a daughter.

### MARRIAGES.

**GOODFELLOW—ROBERTSON.**—On the 25th September, at St. Wilfrid's Church, Northenden, Cheshire, by the Ven. Archdeacon Woosnam and the Rev. Canon Ford, Thomas Ashton Goodfellow, M.D. Lond., of Didsbury, to Eleanor Winifred, only daughter of W. J. Robertson of Northenden.

**SAMWAYS—SIM.**—On Thursday, September the 26th, at Kensington Chapel, Allen-street, W., by the Rev. C. Silvester Horne, M.A., Daniel West Samways, M.D., M.R.C.P., D.Sc., of Mentone, to Sarah Sophia, widow of the late Captain A. D. Sim, Argyll and Sutherland Highlanders, and youngest daughter of the late J. C. Bolton of Carbrook, Argyllshire.

*N.B.—A fee of 6s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## Notes, Short Comments, and Answers to Correspondents.

### "CREDULITY, SUPERSTITION, AND FANATICISM."

THE above words form the heading of one of Hogarth's most telling plates, and were he alive now his biting pencil would find an infinity of subjects in the various forms of fraud and credulity rampant among us. We take the following paragraphs from a contemporary, under date Oct. 1st:—

"Yesterday, at the different schools under the London School Board in the Marylebone Division, men were busily engaged in distributing to the scholars to take home to their parents the following circular:—

'London School Board's children and Vaccination.'

'Parents, do not allow your children to be inspected by the Public Vaccinators. There is no law to compel you. Keep the children away from school rather than run the risk of their being poisoned with filth taken from animals, which the doctors call vaccine, the evil effects of which they themselves do not understand. Parents, will you allow your children to be made ill and liable to take diseases in order to allow some doctors to have good positions and well-lined purses. Remember, a large number of the doctors themselves are against vaccination. Abolish the filthy practice altogether. When the circular announcing the examination reaches you, send in your notice of objection, so that the authorities may learn how strongly the people object to these measures for forcing vaccination upon them.'

This drivell needs no further comment.

The Viavi swindlers are also abroad in the land and are distributing their dirty little pamphlets throughout Wimbledon. Their plan of action is the same as that of other quacks. Their literature consists of nasty little books full of innuendoes and hints about sexual matters, salted with excerpts from the medical journals and papers by medical men, so artfully detached from their context as to make it appear to an ignorant person that the treatment of the quack is endorsed by the journal or medical man in question. Finally comes a paper of questions to be filled up, such questions dealing with every imaginable symptom and one or more of which nearly everyone has experienced at some time or another. "No application will be considered in which the full name and address is not given," a remark which is perhaps the gist of the document. From Australia comes the circular of another quack, one Dr. Critchett Gorrick, M.D., M.P.S., Spec. Cert. in Tox. & Spec. Cert. in A. Ch. This creature has established himself in the place lately occupied by Harman Tarrant and sends out almost, if not absolutely, identical circulars. First, of course, he asks his patient's full postal address and name, secondly comes a list of 85 questions many of which are concerned with symptoms relating to sexual matters. Amongst them, however, we notice such questions as "Dreams"? There is probably no one who does not have dreams. The one important question, however, is the following, No. 80: "Are you sending the £1 by P.O.O. or Registered Letter?" Another one is, "Describe the urine after standing in a warm place for 50 hours." The question does not make it clear whether the secretion or the secretor is to stand for this long time in a warm place, but if the urine is meant the purport is obvious. Of course, the urine would become turbid from decomposition and upon this natural event "Dr." Gorrick would build up a fearsome account of disease from which his dupe would be told he was suffering. The full name and address of course opens the door to blackmail, and although "Dr." Gorrick professes to destroy his dupes' papers when returned to him we doubt whether he does so. "Dr." Gorrick, we notice, reserves the right to return the £1. We wonder how many he returns. We still live in hopes of the day coming when quacks and patent medicine vendors shall be licensed, and by a licence we do not mean any form of diploma, but a tax, and that a heavy one. In Great Britain no one may sell beer or spirits or tobacco without a licence, and the said licence does not in any way guarantee the purity of either the drink or the tobacco. If a quack, whose calling is, we regret to say, perfectly legal, had to pay a licence he might find his game not worth the candle.

### A DIFFICULTY UNDER THE NOTIFICATION ACT.

AT Lancaster Castle on Sept. 28th a man was summoned on behalf of the Lunesdale Rural District Council, under the Public Health Act, for exposing himself while suffering from an infectious disease, and Dr. William Wingate-Saul of Lancaster was summoned for aiding and abetting the offence. The case for the prosecution was that on July 30th the patient was certified by Dr. Wingate-Saul in a notification to Dr. D. J. M. Bone, the medical officer of the Lunesdale Union, as suffering from scarlet fever. On August 1st he was moved from the house where he had been in service to a cottage near by. Dr. Bone having made some inquiries received from Dr. Wingate-Saul a telegram containing the words: "I accept all responsibility of moving case from Halton Park." Dr. Wingate-Saul

was therefore joined in the information. On August 14th the patient travelled by train from Caton to Leeds, en route for Charleton, near Nottingham, and there appear to have been no precautions taken about his removal. He was driven down to the station in an open vehicle, the railway authorities and the medical officer of health having no intimation that such a patient was to be moved. On hearing the facts from the clerk of the Lunesdale Rural District Council the Midland Railway Company caused the whole train to be disinfected. Dr. Bone, called in support of the prosecution, said that he considered that in a case of scarlet fever it took from five to eight weeks for the disease to run its course. He had known cases which had taken 10 weeks. Dr. Bone's cross-examination was as follows:—Do you consider, never having seen this man, that your opinion on August 14th is of more value than that of his medical attendant who had been attending him during the illness?—I never gave any opinion as to whether the man was infectious on August 14th or not. If he fell ill at the end of July I should say most decidedly that he was infectious. I received the certificate that he was suffering from the disease on July 30th.—There was nothing on that certificate to show how long the man had been suffering from scarlet fever?—There was not.—Therefore you cannot say how long this man had scarlet fever?—Yes, I inquired.—But that is not evidence. You cannot say from your own knowledge how long this man has been suffering from scarlet fever?—I cannot.—In your experience you have come across some very mild cases of scarlet fever?—Yes, of course I have.—Cases almost difficult to diagnose as scarlet fever?—Sometimes that is so.—And do you agree that a second attack is generally much milder than the first attack?—Not necessarily. I have seen so few secondary attacks that I could give no opinion on them.—Presuming that this was a second attack of scarlet fever would you say it would be likely not to be so severe as the first?—It is not necessary.—In further cross-examination witness said he would not deny that if the patient were in a state of desquamation when the medical man was called in that the desquamation would cease in a fortnight.—Dr. H. F. Oldham, medical officer of health of Morecambe, having given evidence, said in his cross-examination that he did not know that the man was in an infectious state at all when he travelled, neither did he know that he had scarlet fever.—Dr. Wingate-Saul submitted that there was no case to answer. The onus was on the prosecution to prove that the man was in an infectious condition. There had been nobody called who could say that this man was in an infectious condition. They had a few remarks from Dr. Bone on the subject of scarlet fever in general cases, but he said: I cannot tell you when this man fell ill with scarlet fever, and I cannot say that he was suffering from infectious disease at the time he was removed.—The Bench retired, and after a short absence the chairman (Mr. G. B. Dawson, LL.B.) said it was not proved that the patient was suffering from scarlet fever at the time he travelled and therefore both cases would be dismissed.—Dr. Wingate-Saul's application for costs was refused, the chairman remarking that it was the duty of a public authority to try to prevent the spread of disease.—It will be seen that the prosecution failed on the technical points: (1) that there was no evidence as to the date of commencement of the illness; and (2) that the medical witnesses for the prosecution had no personal knowledge of the case.

#### HIGH FREQUENCY CURRENTS AND DIABETES.

To the Editors of THE LANCET.

SIRS,—Can you or your readers give me any information or references concerning the value of the D'Arsonval high frequency currents in the treatment of diabetes mellitus?

I am, Sirs, yours faithfully,  
Sept. 12th, 1901. S. L. B. W.

#### "MEMBRANOUS COLITIS."

To the Editors of THE LANCET.

SIRS,—I would advise your correspondent "Worried" (THE LANCET, Sept. 21st, p. 826) to try injection into the bowel of one pint or more of infusion of quassia every day for a fortnight, dieting, and warmth.

I am, Sirs, yours faithfully,  
Sept. 29th, 1901. A.

P.S.—I have tried the above and have been successful.

#### POCKET-HANDKERCHIEFS FOR THE TUBERCULOUS.

To the Editors of THE LANCET.

SIRS,—I am advised by the medical officer of health to send you for publication through your columns the appended methods of treating Japanese serviettes so as to render them impervious and thus suitable for isolating the sputa of consumptive persons for a reasonable length of time. The process appears to slightly toughen the texture and leaves it pliable and without the crispness which is the objectionable feature in more durable impervious papers. Cotton and other fabrics may be treated in the same manner.—I am, Sirs, yours faithfully,

G. H. LOCK,

Chief Clerk in the Tuberculosis Department,  
Public Health Office, Manchester.

[INCLOSURE.]

A method by which Japanese serviettes may be rendered impermeable

to serve as pocket-handkerchiefs for consumptive persons, by G. H. LOCK, chief clerk in the Tuberculosis Department, Public Health Office, Manchester.—Dissolve with gentle heat two ounces of *cera alba japonica* and one ounce of paraffin (or spermaceti) wax in about 10 ounces of turpentine. Spread a thickness of about a dozen serviettes on a non-absorbent surface and brush over with the warm solution until well saturated. Separate and hang to dry for several days. A better, but more expensive, solution is prepared as above, with the addition of a small quantity of pure rubber thoroughly dissolved in turps. The quantities of the ingredients may be varied with advantage with regard to the special texture of the serviettes to be treated. The more open the texture the larger will be the amount of Japanese wax required.

**Income-tax.**—THE LANCET of July 4th, 1896, deals with our correspondent's question. If his place of residence is used partly for professional purposes a sum not exceeding two-thirds of the annual value or rent should be deducted when making the return to the Income-tax Commissioners. A model form of return is given in the issue of THE LANCET referred to.

**Uncertain.**—Our correspondent must send us more details of the appointment which he wishes to hold. The necessary qualifications depend in some measure upon the population of the district to which he may be appointed.

**A. M.**—We fear our correspondent can make no legal claim for extra remuneration.

**H. J.**—Yes.

**ERRATUM.**—In THE LANCET of Sept. 28th, p. 845, col. i., line 16, the words "left cerebral vein" should be *left middle cerebral vein*.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

#### METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 3rd, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radiation in Vacuum.	Maxim. Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Sept. 27	30.27	S.W.	...	97	69	51	52	56	Fine
" 28	30.25	S.W.	...	80	67	56	58	61	Cloudy
" 29	30.24	S.	...	101	73	58	58	58	Cloudy
" 30	30.11	S.W.	...	89	70	55	54	55	Foggy
Oct. 1	30.06	S.	...	111	74	55	58	60	Foggy
" 2	29.80	S.E.	0.15	72	65	58	61	62	Raining
" 3	30.01	N.W.	0.35	97	67	54	54	55	Overcast

#### Medical Diary for the ensuing Week.

##### OPERATIONS.

##### METROPOLITAN HOSPITALS.

**MONDAY (7th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynaecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopaedic (2 P.M.), City Orthopaedic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

**TUESDAY (8th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**WEDNESDAY (9th).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopaedic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

**THURSDAY (10th).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynaecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**FRIDAY (11th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square, (9.30 A.M.)

**SATURDAY (12th).**—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

#### SOCIETIES.

**TUESDAY (8th).**—SOCIETY FOR THE STUDY OF INEBRIETY (11, Chandos-street, Cavendish-square, W.).—4 P.M. Papers:—Mr. C. Smith (Maidstone): Are Southern Nations Sober as compared with Northern Nations? if so, why? Some omitted factors in the theory of Dr. Archdall Reid.—Dr. M. Westcott: A Note on Sea Voyages in the Treatment of Inebriety.—Dr. W. Westcott (President): A Review of Recent Progress in the Treatment of Inebriates in Reformatories under Public Bodies by authority of the Act of 1898. The Council will meet at the same place at 3.30 P.M.

**WEDNESDAY (9th).**—HUNTERIAN SOCIETY (London Institution, Finsbury-circus, E.C.).—8.30 P.M. Dr. Mitchell Bruce: Chest Complications in Abdominal Disease. (Hunterian Lecture).

**DERMATOLOGICAL SOCIETY OF LONDON** (11, Chandos-street, Cavendish-square, W.).—5.15 P.M. Demonstration of Cases of Interest.

**THURSDAY (10th).**—BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. H. Macnaughton Jones. Dr. Travers: Intestinal Obstruction caused by Unsuspected Uterine Fibromyoma simulating Appendicitis.

**FRIDAY (11th).**—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers:—Mr. J. J. Clarke: Note on a Painful Condition of the Twelfth Pair of Ribs.—Mr. T. Bryant: A Case of Displaced Strangulated Femoral Hernia.—Mr. C. Wallace: Wounds of Joints and their Treatment.—Mr. C. Mansell Moullin: Omental Fixation for Ascites.

#### LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

**MONDAY (7th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. J. F. Payne: Clinique. (Skin.)

**TUESDAY (8th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. C. T. Williams: Clinique. (Medical.)

**NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC** (Queen-square, Bloomsbury).—3.30 P.M. Dr. Beevor: Cerebral Localisation.

**WEDNESDAY (9th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. P. J. Freyer: Clinique. (Surgical.)

**THURSDAY (10th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.)

**THE HOSPITAL FOR SICK CHILDREN** (Gt. Ormond-street, W.C.).—4 P.M. Dr. Lees: The Heart of the Child.

**FRIDAY (11th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. D. Grant: Clinique. (Ear.)

#### EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

#### MANAGER'S NOTICES.

##### THE INDEX TO THE LANCET.

THE Index to Vol. I. of 1901, which was completed with the issue of June 29th, and the Title-page to the Volume, were given in THE LANCET of July 6th.

##### VOLUMES AND CASES.

VOLUMES for the first half of the year 1901 are on sale. Bound in cloth, gilt lettered, price 18s., carriage extra.

Cases for binding the half-year's numbers are also on sale. Cloth, gilt lettered, price 2s., by post 2s. 3d.

To be obtained on application to the Manager, accompanied by remittance.

##### TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Office, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year ... ..	£1 12 6	One Year ... ..	£1 14 8
Six Months ... ..	0 16 3	Six Months ... ..	0 17 4
Three Months ... ..	0 8 2	Three Months ... ..	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR. CHARLES GOOD, THE LANCET Office, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and Agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER. THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

During the week marked copies of the following newspapers have been received:—Surrey Advertiser, Reading Mercury, Leeds Mercury, Bristol Mercury, Glasgow Herald, Mining Journal, Hertfordshire Mercury, Daily Mail, Local Government Chronicle, Yorkshire Post, Sanitary Record, Public Health, Engineer, Daily Telegraph, Bath Chronicle, British Sanitarian, South African Weekly News, Liverpool Daily Post, The Guardian, Windsor and Eton Express, The Ardrossan and Salicoats Herald, Echo, Manchester Courier, Birmingham Post, Dundee Advertiser, Kent Argus, Grimsby Gazette, Kentish Observer, City Press, Halifax Courier, Western News, Hong-Kong Telegraph, Bury Free Press, Doncaster Chronicle, &c.

### Communications, Letters, &c., have been received from—

- A.**—Mr. J. Atkinson, Lond.; Professor R. J. Anderson, Newry; Professor Clifford Allbutt, Cambridge; Mr. A. H. Allen, Sheffield; Messrs. Arnold and Sons, Lond.; Apothecaries' Hall, Dublin; Monsieur J. Astier, Asnières, France; A. B. S.
- B.**—Mr. E. Baker, Birmingham; Mr. F. E. Bennett, Margate; *Birmingham Daily Post*; Messrs. J. and H. Bell, Nottingham; Messrs. A. and C. Black, Lond.; Bristol General Hospital, Secretary of; Messrs. Burroughs, Wellcome, and Co., Lond.; Mr. H. A. Ballance, Norwich; Benson's Watford Brewery, Directors of; Brin's Oxygen Co., Lond.; Mr. J. Bell, Hong-Kong; Mr. H. Brabant, Lee; Mr. G. V. Bull, Lond.; Dr. G. J. Blackmore, Mr. W. H. Battle, Lond.; Mr. T. H. Bryant; Mr. L. A. Bidwell, Lond.; Mr. W. B. Barter, Lond.; Messrs. Breidenbach, Lond.; Mr. S. J. Baker, Lond.; Dr. C. Beck, New York; Messrs. C. Barker and Sons, Lond.; Dr. J. L. Bogle, Westward Ho.
- C.**—Mr. F. G. H. Cooke, Lond.; Cortland Wagon Co., Lond.; Messrs. Cosenza and Co., Lond.; Messrs. Carnrick and Co., Lond.; Mr. J. G. Chapman, Birkenhead; Messrs. C. R. Cross and Co., Lond.; Cotswold Sanatorium, Cheltenham, Secretary of; Prince Christian Victor Memorial Fund, Hon. Secretary of; City of London, Medical Officer of Health of; Messrs. Cassell and Co., Lond.; Messrs. J. and A. Churchill, Lond.; Cornwall County Asylum, Bodmin, Secretary of; Dr. Beale Collins, Kingston-on-Thames; Dr. G. H. Carveth, Toronto; Sir W. S. Church, Bart., Clonmel.
- D.**—Messrs. Down Bros., Lond.; Messrs. Davis and Ornstein, Lond.; Dr. A. Duke, Cheltenham; Derby County Asylum, Mickleover, Clerk of; Mr. E. Darke, Lond.; Dr. N. Dalton, Lond.; Dr. W. F. Dearden, Manchester; Messrs. Davies and Co., Lond.
- E.**—Dr. J. W. Eakin, San Fernando, Trinidad; Examination Hall, Lond., Secretary of; Messrs. Ellen and Co., Lond.; E. G.
- F.**—Herr Gustav Fock, Leipzig; Dr. J. Ferrua, Lond.; Dr. A. C. Farquharson, Bishop Auckland; Dr. Theodore Fisher, Bristol; Mrs. Farquharson of Haughton; Mr. W. Francis, Lond.
- G.**—Messrs. C. T. Getting and Sons, Lond.; Mr. T. Gauc, Colozal; Glasgow Royal Lunatic Asylum, Secretary of; Mr. T. Gill, Lancaster; G. P.
- H.**—Mr. P. J. Hay, Basle; Mr. T. Hayashie, Lond.; H. W. E.; Messrs. Hirschfeld Bros., Lond.; Messrs. J. Haddon and Co., Lond.; Hospital for Sick Children, Lond.;
- Secretary of; Dr. S. M. Hamill, Burnham Market.
- I.**—Ingham Infirmary, South Shields, Secretary of; *Insurance Journal*, Lond.; Income Tax; International Society of Sculptors, &c., Hon. Secretary of.
- J.**—Messrs. Jewsbury and Brown, Manchester; J. J.
- K.**—Mr. M. D. Kelly, Plymouth; Dr. C. F. Knight, Portobello; Kern Burner Co., Lond., Managing Director of.
- L.**—Mr. P. Longhurst, Sutton; Leslie's, Ltd., Lond.; Mr. F. B. Loughed, North Somercotes; Messrs. Lee and Nightingale, Liverpool; Mr. H. K. Lewis, Lond.; Mr. J. W. Little, Lond.; Mr. W. Stuart Low, Lond.; Messrs. Leathwait and Simmons, Lond.
- M.**—Mr. K. E. Masavi, Bombay; Mr. John McMurtrie, Glasgow; Medical Society of Victoria, Melbourne, Hon. Secretary of; Manchester Royal Infirmary, Secretary of; Medicus, Lond.; Surgeon J. MacDonald, R.N., Haslar; *Medical Magazine*, Editor of; Mr. M. S. Mayo, Lond.; Myosin Albumin Meat Extract Co., Lond.; Messrs. Merryweather and Sons, Lond.; Mr. A. E. Maynard, Glasgow; Dr. C. McKerron, Warrington.
- N.**—*New Orleans Medical and Surgical Journal*, New Orleans, U.S.A.; Mr. H. Needes, Lond.; Mr. J. C. Needes, Lond.
- P.**—Mr. L. C. P. Phillips, Cairo; Mr. Y. J. Pentland, Edinburgh; Mr. F. Potter, Lond.; Post Graduate College, Lond., Dean of; Mr. S. Paget, Lond.; Mr. J. M. Price, Preston; Messrs. Paté, Burke and Co., Lond.; Dr. D. M. Paton, Melbourne; Messrs. Peacock and Hadley, Lond.
- R.**—Mr. R. W. Rees, Treherbert; Rotherham Hospital, Secretary of; Royal Cornwall Infirmary, Truro; Royal College of Surgeons, Lond., Secretary of; Red Brotherhood, Penzance, Warden of; Royal College of Physicians, Lond., President of.
- S.**—Mr. T. G. Scott, Denmark Hill; *The Smart Set*, Editor of; Messrs. Squire and Sons, Lond.; *Suez Daily News*, Brighton; Dr. P. B. Smith, Nairn; St. Andrew's Hospital, Northampton, Secretary of; Mr. P. Selby, Teynham; Mr. J. Sawyer, Birmingham; Mr. M. Shield, Lond.; Dr. E. M. Spencer, Modbury; Mr. H. M. Speechly, Manitoba.
- T.**—Mr. J. W. Taylor, Birmingham; Taunton and Somerset Hospital, Secretary of; Mr. S. W. Thompson, Old Calabar; T. J. C.; Mr. H. E. Symes Thompson, Lond.; Messrs. C. Taylor and Co., Lond.

U.—Uncertain.  
V.—Vinolia Co., Lond.  
W.—Mr. R. Willson, Oxford; Mr. H. P. Wilkinson, Lond.; Professor G. S. Woodhead, Cambridge; Mr. A. E. Wynter, Lond.

### Letters, each with enclosure, are also acknowledged from—

- A.**—Messrs. Allen and Hanburys, Lond.; Mr. B. M. Allen, Lond.; A. B., Torquay; Agency Surgeon, Kathiawar, India; A. B.; A. M. S. J. W.
- B.**—Mr. G. Billing, Blackpool; Mr. H. Brice, Exeter; Dr. G. A. Bontor, Great Berkhamsted; Messrs. Brady and Martin, Newcastle-on-Tyne; Blackheath, &c.; Cottage Hospital, Secretary of; Mr. F. E. Bissell, Handsworth; Bristol Royal Infirmary, Secretary of; Messrs. F. B. Benger and Co., Manchester; Mr. A. Baxendell, Farnham.
- C.**—Mr. G. G. Clarke, Crofton; Mr. P. A. Colmer, Yeovil; Mr. T. Culleton, Lond.; C. H. P.; Messrs. Colman and Co., Lond.; Dr. R. Cox, Theale; Cheshire County Asylum, Macclesfield, Clerk of; C. F. W.
- D.**—Miss M. H. Davies, Longton; Discount Motor Car Co., Lond.; Mr. Harold Downes, Culmington; Mr. P. J. De Souza, Karachi, India; The Paul E. Derrick's Advertising Agency, Lond.; Dispenser, Hastings; D. M. J.; Dr. T. Dewar, Hutton-le-Hole.
- E.**—Dr. C. S. Elebash, New York; Essex and Colchester Hospital, Secretary of; Dr. E.; E. O. C.; E. R.; E. H.; Messrs. Evans and Wornall, Lond.
- F.**—Mr. J. J. Fanning, Birr; Mr. R. F. Flood, Hemel Hempstead; Mr. J. Fitzgerald, Queenstown; Messrs. Fairchild Bros. and Foster, Lond.; F. W. B.; Messrs. Fletcher, Fletcher, and Co., Lond.; Mr. W. Falla, Jersey.
- G.**—Mr. C. R. Graham, Wigan; Messrs. Gilyari Bros., Bradford; Mr. W. E. Good, Dorchester; Mr. J. Good, Stockport; G. H. R.; G. N. M.
- H.**—Dr. T. W. Hime, Bradford; Halifax Union, Clerk of; H. S.; Messrs. Hooper and Co., Lond.; Mr. E. Hudson, Carlton-Colville; H. H. B.; H. E. G.; H. J. F.; Dr. W. T. Harkness, Hutton; Miss Hauser, Bingley; Mr. H. Herd, Leith; H. B.; Haydock Lodge, Newton-le-Willows, Medical Superintendent of.
- J.**—Mr. F. S. Jackson, Aberdovey; J. K.; Dorking; J. L. L.; J. W.; J. M. L.; J. M. F.
- K.**—Dr. R. G. Kirtan, Port Elizabeth; Messrs. Knight and Co., Lond.; Messrs. King, Hamilton, and Co., Calcutta.
- L.**—Dr. E. J. Lloyd, Presteigne; Mr. B. C. Lucas, Clifton; Messrs. W. H. Lowdermilk and Co., Washington, U.S.A.; Dr. E. Laws, Farndon; Locum, Lond.
- M.**—Mr. H. W. Mills, Ruanidan; Mr. J. D. Murdoch, Queensbury;
- Dr. L. Williams, Lond.; Mr. S. Wand, Leicester; Wills, Ltd., Lond.; Dr. A. A. Warden, Paris; Messrs. Wright and Co., Bristol; *Westminster Gazette*, Manager of; W. J. S.
- Mr. L. F. Morris, Bournemouth; Mrs. Medlicott, Paddock Wood; Mr. J. J. Minehan, Skibbereen; Mr. R. Mosse, Cologne; Messrs. McKesson and Robbins, New York; Dr. G. McKellar, Kelso; Dr. J. F. Macara, Durness; Mr. E. P. Maret, Jersey; Dr. F. C. Madden, Lond.; Medicus, Blackburn; Mr. J. Maberly, Salt River, South Africa; Dr. L. J. Minter, Hove; Medicus, Devonport; Medicus, Liverpool.
- N.**—Messrs. Nicolay and Co., Lond.; Mr. T. Nixon, Ashby-de-la-Zouch; North of England Medical Agency, Sunderland; Dr. N.
- O.**—Messrs. Osborn and Mercer, Lond.; Messrs. Ormrod and Dudgeon, Workington; Mr. R. C. Owen, Hindley.
- P.**—Dr. H. R. Phillips, Malton; Mr. J. J. Phelan, Lond.; Portsmouth Medical Library, Secretary of; Dr. Paravicini, Hausen, Switzerland; Poplar Hospital, Secretary of; Dr. G. V. Poor, Lond.
- Q.**—Queen's College, Galway, Secretary of.
- R.**—Dr. R. M. Ralph, Wakefield; Dr. L. Roberts, Pontypidd; Messrs. Rawley Cross and Co., Ealing; R. N.; R. L. L.; R. C.; Dr. N. S. Richardson, Bournemouth; R. W. R.; Mr. G. H. Ramsbottom, Alderley Edge.
- S.**—Messrs. Street and Co., Lond.; Swansea Union, Clerk of; Dr. S.; Mr. Munro Scott, Lond.; Messrs. Southall Bros. and Barclay, Birmingham; Dr. M. S. Sharp, Lond.; Mrs. Simmonds, Lond.; Mr. C. H. Swift, Huddersfield; S. N.; Scholastic, Clerical, &c., Association, Lond.; St. Luke's Home, Boscombe, Deaconess of; Mr. Stanley, Lond.; S. H. S.; Miss Spoor, Weston-super-Mare.
- T.**—Mr. W. Tomlinson, Bedford; Mr. E. Tyson, Walthamstow; Teignmouth Hospital, Secretary of; Captain R. G. Turner, China Field Force.
- V.**—V. A. M.
- W.**—Mr. C. G. R. Wood, Shrewsbury; W. J. H.; Dr. W. C. Mr. C. J. Weller, Frampton-on-Severn; W. T. C.; W. G. D.; Dr. A. C. White, Oldham; Mr. J. Ward, Lond.; W. J. W.; Mrs. J. Wysari, Lond.; Messrs. Wright, Layman, and Unney, Lond.; Mr. N. Walmisley, Lond.; Mr. R. M. Wright, Burwell; Messrs. Wilcox and Co., Lond.; Wolverhampton General Hospital, Secretary of; W. E. P.; Dr. A. Welply, Stratford; Messrs. Williams, Humbert, and Co., Lond.

EVERY FRIDAY.

## THE LANCET.

PRICE SEVENPENCE.

### SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.  
One Year ... £1 12 6  
Six Months ... 0 16 3  
Three Months ... 0 8 2

TO THE COLONIES AND ABROAD.  
One Year ... £1 14 8  
Six Months ... 0 17 4  
Three Months ... 0 8 8

Subscriptions (which may commence at any time) are payable in advance.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an additional advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

### ADVERTISING.

Books and Publications	Seven Lines and under £0 5 0
Official and General Announcements	Do 0 5 0
Trade and Miscellaneous Advertisements	Do 0 4 6
	Every additional Line 0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application.

## An Introductory Address

*Delivered at the Opening of the Winter Session at the  
Yorkshire College, Leeds, on Oct. 2nd, 1901.*

BY SIR WILLIAM S. CHURCH, BART.,  
M.D. OXON., F.R.C.P. LOND.,  
PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

GENTLEMEN,—I must, in the first place, thank the governing body of the Yorkshire College for having invited me to come among you, for I feel how great is the compliment to have been asked to address you, especially when I remember the distinguished men who are or have been connected with your college and teaching staff and are much better fitted than myself for the task.

In the great educational progress that the nation made during the latter half of the last century it is noticeable that the promotion of general education was more successfully carried out by many of the great provincial cities than in the metropolis. In the case of medical schools the provincial ones naturally could not attain the same reputation as those in London, partly on account of the small numbers attending them and partly from the want of means and facilities for the requisite studies. Time has, however, in this as in many other matters brought about remarkable changes, and the medical schools of London look now with envious eyes at the liberality with which all branches of learning are supported in the great provincial centres of commerce. Science and with it medicine has appealed, and not in vain, to the people of the great northern counties of Yorkshire and Lancashire and nowhere is greater munificence manifested in their support.

The Yorkshire College, originally the Yorkshire College of Science, has for nearly 30 years held a distinguished position among the educational bodies of the kingdom and especially is this the case with the medical school which forms one of its component parts. The Leeds School of Medicine, established 70 years ago, rapidly acquired a high reputation, and when the Yorkshire College was in 1887 admitted to the Victoria University its medical department acquired, as it was fully entitled to, a recognised university standing.

In the history of Leeds, and notably in connexion with its medical school, reference must be made to the remarkable family of the Heys. The first William Hey was active in promoting the foundation of your infirmary in 1767, and for some 30 years was attached to it as surgeon. A friend of the illustrious Priestley, he took the liveliest interest in all scientific and literary progress, and was the first President of the Leeds Literary and Philosophic Society. At the commencement of the last century he gave, as opportunities arose, courses of anatomical instruction in the infirmary on the bodies of executed criminals and his name will ever be honoured as one who greatly improved the art of surgery. His son William succeeded him as surgeon to the infirmary and his grandson William was one of the founders of your medical school; with him were associated Dr. Williamson, remarkable not only for his professional knowledge, but also for his active public life; Dr. Thorp; and Mr. Pridgin Teale, whose son worthily carries on his father's work and who as one of your consulting surgeons it is still your good fortune to have among you.

How wonderful have been the changes since the time when William Hey published his "Practical Observations in Surgery" illustrated with cases (1803). Leeds I find described at that time as a populous market town containing in the year 1801 11,599 houses and 53,162 inhabitants, and it is noted as having flagged footways on both sides of the streets. By the kindness of the town clerk, Mr. Jeeves, I learn that now Leeds contains 94,770 houses and 428,953 inhabitants, more than eight times the number of houses and people it did 100 years ago. Returning to the old description of Leeds, mention is made of its spacious infirmary which, founded some years earlier, was rebuilt by the liberality of the inhabitants of the town in 1786; of three sets of almshouses and a charity school. Leeds was fortunate also in the possession of a free grammar school, an old foundation, due to the pious action of William Sheffield in 1552 and greatly benefited in the following century by John Harrison (1664)

No. 4076.

and Godfrey Lawson, the Mayor (1692). Possessing this advantage we find that Leeds long ago had its contributors to science and art, for among those educated in the grammar school during the eighteenth century we find Dr. John Berkenhout, a man of surprising industry and an encyclopædic writer, and Benjamin Wilson, the portrait painter, the friend of Hogarth and Zoffany, who was not only a considerable artist, but a man of science as well, obtaining the gold medal of the Royal Society for his researches in chemistry and electricity, and especially for his services in devising improvements in the construction of lightning conductors.

It is difficult for the present generation to bear in mind the enormous changes which have taken place during the last 100 years. Steam and electricity have nearly realised the wonders of Aladdin's lamp, and Leeds has participated to the full in the material and educational progress which the kingdom has enjoyed. Medicine has had its share in this general advance, and greater progress has taken place in all branches of medical knowledge during the last than in all the centuries which preceded it; not only have great improvements been witnessed in the practice of medicine and surgery and in the knowledge of the action of drugs on the system, but the State, recognising the importance of national health, has taken part in developing a new department of medicine—namely, that of preventive medicine and sanitary science.

While fully acknowledging the debt we owe to the founders of medicine it is clear that however excellent the practice of Hippocrates, Galen, Celsus, and their followers may have been it was entirely due to empirical knowledge, the result of the observation and study of clinical symptoms. On them they, and to a still greater extent their followers, founded theories of disease which, like all other theories, were "fond imaginations vainly conceived," and led to advance neither in knowledge nor practice. The art of healing made no progress whatever during the decline of the Roman Empire, and later the Arabians were but plagiarists of the Greeks and, with the exception of Rhazis, added nothing to our medical knowledge. To them belongs the credit of keeping alive the flickering light of medicine during what are spoken of as the dark ages, when knowledge and learning in Western Europe were at a very low ebb, and but for them the writings of the Greeks would have been wholly forgotten. With the revival of learning and the re-introduction of the knowledge of Greek an undue reverence for the masters of antiquity became prevalent. The writings of Galen were supposed to be infallible, and those who ventured to dissent from their absolute truth were regarded by the learned doctors of Paris and London in much the same light as the ecclesiastical courts looked upon heretics. So strong was this feeling that in 1559 my own college refused the fellowship to Dr. Geynes because he ventured to doubt the infallibility of Galen, and about the same time it declined to admit Dr. Hook to the examination for its licenseship because he had the honesty to say that he had not read Galen's works.

With the Renaissance the study of anatomy became general in Italy. Sylvius, Fallopius, Vesalius, and others placed anatomy on a firm basis, and by showing the errors in the anatomical knowledge of the ancients enabled their followers and successors to break through the prison-like bonds in which medical knowledge had been confined. At a somewhat later period Harvey's discovery of the circulation and his methods of experimentation gave an impulse to the study of the functions of organs in the living, out of which physiology, as we now understand the term, arose. We are apt to forget how slow was the acquisition of physiological knowledge, even after Harvey's time; it was not until upwards of 100 years later, when Black had demonstrated the presence of carbonic acid in expired air and Priestley had succeeded in isolating oxygen, that it was possible for real advances to be made in physiology, and consequently little or no progress was made in the practice of medicine from the time of Sydenham until the practice of auscultation was introduced. I do not mean to imply by this that no improvements took place in practice; great advances were made in surgery and some in medical treatment, but our knowledge of the nature and causes of disease did not advance. Jenner, it is true, more than 100 years ago, by keen observation and patient experimentation, made his great discovery, and not only robbed small-pox of half its terrors, but placed in our hands a clue to the nature of infectious diseases which indirectly,

perhaps, but none the less surely, led to the later discoveries which we owe to the genius of Pasteur and Lister.

The late Sir William Roberts in his interesting Harveian Oration (delivered in 1897) remarks that a sharp distinction must be drawn between the science of antiquity and the science of to-day. Their greatest intellects were concerned in metaphysics and literature rather than in systematising and inquiring by way of experiment into the secrets of nature. The ancients, and more especially the Greeks, possessed a large mass of information concerning nature and natural objects, but from want of general principles and coördination failed to systematise the knowledge they possessed.

It is not my intention to attempt to trace the development of our scientific knowledge during the past century or the influence it has had on medicine. The concluding years have been marked by the discovery of a new province of nature and by the rise of a new science—bacteriology, or the study of the nature of micro-organisms and the part they play either for our advantage or disadvantage in the universe. At present we are only on the threshold of their kingdom and the part they play in nature is as yet but imperfectly known. The problems of the causes of our susceptibility or immunity to their attacks have yet to be explained and present vast fields for research and experimentation; as yet we know that certain forms are invariably associated with certain morbid conditions, and we can go a step further and state with confidence that they are the essential causes of those conditions and that without their presence in our bodies we should not manifest the deviations from the normal state which we call disease. The discovery of their presence and the dependence of disordered health on their activity have already necessitated so great a change in our views of disease that it may with truth be said that a new era has already commenced in medicine.

Many whom I now have the honour to address are about to enter my own profession. I shall therefore devote myself to a brief consideration, not of the amount and kind of knowledge that is required for the study and practice of medicine, but rather of the spirit and frame of mind in which you should approach your future work, the methods by which it should be carried out, and the effect which, in my opinion, your work should and will have on your minds and lives.

Medicine embraces so extensive a range of knowledge that, in the words of Dr. Thomas Young, "there is no science which requires so penetrating an intellect, so much talent and genius, so much force of mind, so much acuteness of memory as medicine. For the full attainment of its proper and ultimate object it requires also the possession of stability of judgment, rapidity of decision and immovable firmness and presence of mind, readiness of recollection, coolness, flexibility of temper, elegance of manners, and a profound knowledge of mankind and the secret recesses of the human heart." Dr. Young has enumerated a most formidable array of requirements for those who look forward to practising the art of healing; it is too much to expect that all these qualities can be united in any of us; it is only a gifted few who can hope to command a portion of such varied qualities. Dr. Young himself does not seem sanguine that many can be found who would meet his requirements and come up to his standard, for he goes on to say: "Our only hope for attaining these qualities is by means of a good education united with opportunities of becoming acquainted with the world and habits of intercourse with society."

You have all received a good general education and are now entering on your special and professional studies; the better and more advanced your general education has been with the greater ease will you become initiated in your new lines of work. It was a great step forwards in the right direction when the various licensing bodies decided that no man should be admitted as a student of medicine without giving evidence of possessing a more or less satisfactory elementary education. I wish that a higher standard of general knowledge could be insisted on and that the entrance to our profession was instituted on a broader basis. The principles of the sciences of physics, chemistry, and biology should be acquired before the five years of professional study are commenced, for they are none too long for affording time in which you may obtain some practical acquaintance with the many special branches into which the progress of our knowledge has necessitated the breaking up of medicine and surgery.

Great difference of opinion exists among those well qualified to judge as to the value of different kinds of

knowledge in training and developing the mind. I will not attempt to enter into the question; it is the way in which a subject is taught rather than the subject matter itself which appears to me to be most important. Without impugning the value of science, if properly taught, to boys as a training for the mind I am quite satisfied that a fair acquaintance with the old classical languages Greek and Latin very greatly facilitates your progress in science. The terminology, not only of medicine, but of the sciences with which you have to become familiar—physics, chemistry, biology, anatomy, physiology, pathology—is for the most part derived from Greek or Latin, and if you have not a fair acquaintance with them the terminology you meet with is not only difficult to master but is actually repugnant to many.

Nor should we forget that the professional character is not the only one which those engaged in a profession have to support. You will not always be the doctor; as a companion, friend, and citizen you have other duties to perform and other opportunities of showing that you have not neglected your talents. Our profession has always claimed to be a liberal and learned one; in no way can its status be maintained and raised, if its members cannot hold their own in general society as men of intelligence and culture. Moreover, nothing more increases our capacity for pleasure in our moments of leisure than having an interest and some knowledge of a special subject, be it what it may. Dr. Johnson<sup>1</sup> remarks: "He that enlarges his curiosity after the works of nature demonstrably multiplies his inlets to happiness"; and I believe that no subjects are more calculated to increase our reverence and to elevate our minds than the contemplation of the works of nature and intelligent inquiry into the nature and causes of natural objects. In the words of the Roman poet,

"Jupiter est quodcumque vides, quodcumque moveris."—*Lucan*.

It is often said that we are such as education makes us. This is only partly true, for every man is essentially different from every other, so that no training can ever make two men alike in power or thought. Education and the acquirement of knowledge are not synonymous. Ruskin has remarked that "the great leading error of modern times is mistaking erudition for education."<sup>2</sup> In our profession not only the acquirement of knowledge but education is lifelong; we remain students so long as we remain at work, and our self-education terminates only with the cessation of active life, for it is one of the great advantages of your future work that it opens out an infinite field for speculation and thought and ever affords fresh material for research and experiment. In studying the natural sciences there is no danger of falling into the habits of the schoolmen—"who having subtle and strong capacities, abundance of leisure, and but small variety of reading, their minds being shut up in a few authors, as their bodies were in the cells of their monasteries, and thus kept ignorant both of the history of nature and times, they with infinite agitation of wit spun out of a small quantity of matter those laborious webs of learning which are extant in their books"—studying words and not matter which Bacon<sup>3</sup> says is the first distemper of learning. Very different will be your object; you will strive to work out and interpret the action of nature in health and disease; your search will be for facts and for the proof of these facts by way of experiment. "Knowledge is like current coin. A man may have some right to be proud of possessing it if he has worked for the gold of it and stamped it, so that it may be received of all men as true; and be assured that there is no part of the furniture of man's mind which he has a right to exult in but which he has hewn and fashioned for himself."<sup>4</sup> It is not on the mere acquisition of knowledge that we should pride ourselves; the possession of riches which have come to us from others may be very desirable, but they reflect no honour on the holder of them. Any real addition to the accumulated store of knowledge is a benefit to mankind and, however small, possesses more merit than in filling your minds from the general heap. Remember the words of the poet—

"Nec sibi, sed toti genitum se credere mundo."—*Lucan*.

"The real and legitimate goal of the sciences is the endowment of human life with new inventions and riches." Consider for a moment what science has done since Bacon wrote these words, and how marvellously the truth of them has

<sup>1</sup> Rambler, No. 5.

<sup>2</sup> Stones of Venice, Appendix vii.

<sup>3</sup> Novum Organum.

<sup>4</sup> Ruskin: Stones of Venice.

been exemplified in the 281 years which have elapsed since he submitted the "Novum Organon" to King James the First, together with a private letter in which he thus explains the object of his undertaking. "The work in what colours soever it may be set forth is no more but a new logic, teaching to invent and judge by induction, as finding syllogism incompetent for sciences of nature and thereby to make philosophy and sciences both more true and more active." What would be the condition of the world now had the discoveries of science not advanced with greater rapidity than they did in the centuries which preceded Bacon? How much of the advance has been due to his writings and the influence they have had on the world I will not attempt to discuss. Bacon himself was a product of his times and the revolt from the barren sophistry of the schoolmen and the ancient philosophers had set in before he was born, but no one can deny that his writings played an important part in directing the attention of the men of his own time and that immediately following to the fruitful fields of experimental philosophy. Five-and-twenty years after the appearance of the "Novum Organon" several ingenious men interested in the progress of mathematics and natural philosophy agreed to meet once a week to discourse upon subjects connected with those sciences. Four years later some of them having removed from London to Oxford held similar meetings there; the two societies joined and thus was instituted the Royal Society. It redounds to the credit of our profession that so many of the original members were physicians; among the Londoners we find the names of Goddard, Ent, Glisson, and Merrett; among the Oxford members Bathurst, Petty, and Willis. From the first the Royal Society declared the physical sciences and those which are promoted by experiment to be the objects of their attention, and experiment was the method they professed to practise in establishing the truth of their investigations.

The term "science" has been denied by some as applicable to medicine; they contend that it is an art and not a science. Definitions are always difficult and I will not attempt the task. The terms "art" and "science" have, however, been defined as dealing the one exclusively with things as they are in themselves and the other exclusively with things as they affect men. Science studies the relation of things to each other, art only their relation to men. If this definition embraces the truth medicine can claim to be both, for unless we know the real nature of the things we deal with and the relationship in which they stand to each other we cannot hope to apply them rightly. Whatever may be said of medicine in the past, we may now claim that it deals largely with facts and that our art is the application of our knowledge regarding them to the circumstances affecting human life both in health and disease. Your education should be, and will be here, carried out on scientific principles and you will find that the difficulty of arriving at facts in physiology and pathology constitutes the principal difficulty and is the main obstacle to the advance of curative medicine. These branches of knowledge deal with matters which are so much concealed from view, so involved and so disguised and obscured by a number of delicate and variable causes, that it requires the greatest care and judgment to separate the essential from the accidental—the proved from the probable. Modern means and methods of research give us great advantages over our forefathers in these difficult investigations, and the practising doctor is very greatly indebted to those who have devoted their energies and lives to scientific research in these most interesting but most ill-recompensed studies.

It is impossible in these days that any person, however gifted, can be conversant with all the methods of modern research, but he who has gone through some scientific training is placed in a much more favourable position for appreciating the value of the work and reputed discoveries of others than the man who has never received any such training and has spent his time in the acquisition of, I will not say knowledge, but information on certain subjects sufficient to enable him to scramble through his examinations, and has never learnt the difference between a fact scientifically proved and a statement made on insufficient data.

Credulity is not confined to the ignorant—far from it; it is remarkable how many persons of high intelligence and culture are ready, if they have not received some scientific training, to accept unproved statements and believe in them without questioning either their probability or the authority

of those who make them. This tendency to unquestioning belief is especially seen in matters pertaining to medicine, for the belief in the heaven-born doctor still lingers even among the educated. The wonders of science are so striking and to them so incomprehensible that they fail to see the differences between the probable and the improbable, the possible and the impossible. In no other way can we account for the popularity of numberless absurdities which have in their day enjoyed public favour and for the countless nostrums which swell the advertisement sheets of our present newspapers. Bishop Berkeley believed in the efficacy of tar-water as a universal panacea. He says: "It is good, not only in fevers, diseases of the lungs, cancers, scrofulas, throat diseases, apoplexies, chronic disorders of all kinds, but also as a general drink for infants. It strengthens their bodies and sharpens their intellects." None of his theological or philosophical writings commanded such numbers of readers as his "Siris," a work published in 1744, and entitled, "A Chain of Philosophical Reflections concerning Tar-water and divers other Subjects connected together and arising from one another." It is not the laity alone who are thus deluded; among many instances I could narrate of members of the profession being thus led astray I will only mention Dr. Hartley, a learned and philosophical physician, who was so convinced of the efficacy of Mrs. Stephen's powder for the cure of gravel and the stone that he succeeded in persuading the Government in 1739 to make up the sum of £5000 which she demanded for the prescription, £1387 only having been raised by private subscription. This valuable remedy is stated to have been composed of egg-shells and snail-shells with the snails in them calcined; ash-keys, hips and haws, swine-cress, and other herbs calcined; and chamomile and other herbs not calcined. By the irony of fate Dr. Hartley himself died from the disease in spite of having taken, it is said, 200 lbs. of the powder. The cures wrought nowadays by faith healing, Christian science, and other delusions are just as real to the uninitiated as is the removal of a tumour or the cure of an ague; their complete ignorance renders them incapable of forming a judgment as to the reality and nature of the conditions confidently asserted to have been cured. Do we not ourselves conduce to this ignorance on the part of the laity when we speak of curing disease? With few exceptions we do not cure the disease any more than we cure a broken leg; we place the leg or the patient into the best circumstances for nature to restore the health of our ailing patient or the bone of the broken leg.

It would far exceed the limits of my ability as well as of my time if I were to attempt to recount the enormous increase in our scientific knowledge which the last century witnessed. Let me remind you in passing of some of the advances which bear more particularly on the practice of medicine. I may instance the knowledge we now possess of the existence of motor centres in the brain. Although the clinical fact had been recognised for centuries that injuries to the brain were followed by loss of power in the limbs, and in some cases by loss of speech, it was not until experimental investigation was scientifically and continuously carried out that we arrived at the knowledge we now possess and became enabled in a limited number of cases to relieve the sufferers by surgical means and in some instances avert death. Here we see an example of the ease with which the relationship between facts may escape observation if not scientifically looked for and experimentally tested, for even the fact that the paralysis of the muscles occurring in hemiplegia was on the opposite side of the body to that on which the brain lesion was situated, although known to Aretæus and rightly explained by him as due to the decussation of the nerves in the spinal cord, had been forgotten and was not generally recognised until comparatively recent times. Again, in palmistry, which was at one time seriously studied by men of intelligence, whilst all sorts of fancies and superstitions were attached to the lines and folds in the hands and wrists and to the shape and form of the fingers, no one, so far as I know, associated clubbing of the finger ends with interference in the circulation nor transverse furrows on the nails with arrest of growth and nutrition.

How great a change has taken place in our views of the functions of organs since we have ascertained that the main organs of secretion, in addition to the functions we have long associated with them, elaborated other secretions which are probably not less necessary for the well-being of the individual than are those with which we had for years been acquainted. Our knowledge of micro-organisms and

the part they play in nature is but of yesterday, but what an amount of light has already been shed on what formerly appeared insoluble in connexion with infectious disease. How vast and interesting a field is thrown open to us by the little we yet know of serum-therapy and the action of the antitoxins in conferring immunity! Is it too much to hope that possessing, as we now believe, a key to much that has hitherto baffled us, we may in the near future make such progress in arresting or destroying disease that the advance during the nineteenth century may seem to those that follow us almost as slow and halting as we consider that which took place during the seventeenth and eighteenth centuries? May we not look with some confidence to the present century seeing cholera, plague, and malaria and other forms of fever, if not abolished, rendered comparatively innocuous? I am tempted to apply to our present position the words of Lucan, beautifully paraphrased by the late Dean Stanley—

"Never in earlier days our hearts to cheer  
Have such bright gifts of Heaven been brought so near.  
Nor ever has been kept the aspiring soul  
By space so short from so great a goal."

How is this goal to be attained? By patient and honest work, seeking the truth and not being contented until the truth can be plainly and palpably demonstrated. It is not given to everyone to make great discoveries, but we may all help in the work and bring, if we observe facts correctly, a fragment of stone or a grain of sand to assist in building the temple of knowledge.

I have now endeavoured briefly and very imperfectly to bring before you the manner in which you should approach the study of medicine. The time has passed when experience was the sole guide and clinical symptoms the sole means we possessed for recognising disease and judging of the state of our patients. Do not misunderstand me and conclude that experience and observation are not needed now; no amount of chemical or physiological knowledge will enable you to recognise disease or to treat satisfactorily those under your care. Observation and experience are as valuable and necessary as ever, but much more is required, for unless you approach your clinical work with minds already trained in scientific methods you will fail to appreciate and interpret aright the difficulties you will then encounter. You will find hereafter that the cases which cause you the greatest anxiety are those in which you are uncertain of the conditions with which you have to deal and where you cannot foresee the probable outcome of the symptoms before you. Recent progress enables us to stand on much firmer ground than we did but a few years ago. Bacteriology enables us to distinguish between certain forms of fever; and advances in pathological histology render it possible to discriminate innocent from malignant growths; by the aid of the Roentgen rays foreign bodies can be seen and located within us, whilst more exact information can be obtained in the diseases and injuries of joints and the condition of fractures; and we may hope that before long the wonderful x rays may reveal with greater certainty than at present changes in the tissues of our organs. There is no need for me to multiply instances; in a variety of ways we reap advantages from the progress of the other sciences and hopefully adopt them as a means for improving our art.

Let me, in conclusion, turn to the effect which the study of medicine has on those who pursue it. You must have already gathered from the tenor of my remarks that science appears to me to be the most ennobling of all pursuits; and as I claim medicine as a science it follows that it shares, and I believe more highly than any of the other branches, in this advantage. The old reproach, "Tres medici duo athei," is not, and never was, true, and I believe that among no class is true reverence for the Creator more strongly felt than by the followers of medicine. Unorthodox they have been and perhaps are. The anathemas of the Church which of old were so often directed against science arose from the hatred which the Church had to the spirit of inquiry, which is one and perhaps the most potent cause which leads men to enter our profession. The errors in the accepted beliefs of the Church soon became apparent to the students of the natural sciences and led them to regard with suspicion the truth of the dogmas and validity of the creeds promulgated by conferences of theologians who, however learned, were but fallible men. Without scepticism there can be no progress, but the charge that scientists were godless arose from the intolerance and bigotry of ecclesiastics.

"There lies more faith in honest doubt,  
Believe me, than in half the creeds."

It is needless in this assembly to refute the calumny that our education blunts our feelings and renders us callous to the sufferings of men and animals. The experience of the whole world disproves it; this charge was never made until recently and springs, in my opinion, from the same spirit of antagonism to inquiry and scientific knowledge which dominated the minds of the Papal inquisitors. The sentimentalist, ignorant alike of the methods and purposes of experimental investigation, allows his feelings to be played upon and his judgment perverted by the misrepresentations of a few who, I cannot help thinking, have other and more material reasons than either the sufferings of animals or the alleged evil effects of experimentation on those who practise it for the agitation they so noisily strive to maintain against physiological and pathological research. Our training produces an opposite effect; the desire to be useful to our fellow-creatures is next to the spirit of inquiry, if, indeed, it be second to that—the motive which leads many to our ranks. By general consent wherever sickness and suffering are found and however little may be the pecuniary reward we are found ready to succour to the best of our ability those in need of our aid. The battle-fields of our armies and the cholera and plague-stricken districts of our empire alike bear witness that we are not forgetful of Plato's definition of the duty of man: "Wherever his post is, whether selected by himself or assigned to him by his commander, there it is his duty to stand fast in the hour of danger, recking nothing of death or anything else except dishonour."

Before I conclude let me add a few words of encouragement to those who are to-day entering on a new life. You are commencing a period of keen competition, first among your fellow-students and subsequently in the world. Remember that you cannot all be prizemen; all are not equally endowed by nature, but all can make use of their gifts to the best purpose. I would remind you of the words of Marcus Aurelius, the last of the Stoics: "You have no special keenness of wit; so be it; yet there are many other qualities of which you cannot say you have no gifts that way. Do but practise them, they are wholly in your power; be sincere, dignified, industrious, serious, not too critical nor exacting, but considerate and frank. See how many good qualities you might exhibit for which you cannot plead natural incapacity or unfitness and how you fail to rise to your opportunities." Your opportunities here will be great, and I may venture to assure you that if you make use of them you will not fail, you will have fitted yourselves for the duties of life, and will not in the future have to repine over wasted years. Your success depends upon yourselves, upon your skill, character, and conduct; so employ your time now that at the close of your career you may be able to say, as did Percival Pott, one of the great surgeons of my hospital, "My lamp is nearly extinguished, I hope that it has burnt for the good of others."

## An Introductory Address

OR,

## OCCULTISM AND QUACKERY.

*Delivered at the Opening of the Winter Session at St. Mary's Hospital on Oct. 1st, 1901,*

BY WILLIAM HILL, B.Sc., M.D. LOND.,  
SURGEON FOR DISEASES OF THE EAR TO THE HOSPITAL.

GENTLEMEN,—We are confronted to-day with the spectacle of a number of students entering on an expensive course of study extending over at least five years in the hope of eventually joining, and making a competence in, the ranks of a profession which is already overcrowded. The total number of entrants to-day at the various medical schools in the kingdom we may put down at nearly 2000, and one may well pause to inquire whether these women and young men are wise, and whether it is really worth while going to the trouble and expense of a medical education at all. Why not start off and practise on the credulity of the public without let or hindrance by law? We live in an age when there is not only a large survival from the dark ages of superstition and a belief in occultism and in quackery of all kinds in medicine, but

there is positively a revival of the most remarkable character of an emotional form of occultism, a jumble of pseudo-science and irreligion. I allude to the various forms of faith-healing of which Christian Science is a type. There is, of course, money in the movement. In America "Divine healing" exhibits its success in one notable instance in the establishment of a school and college, a bank, a land and investment association, a printing and publishing office, and sundry "Divine healing" homes, and this prosperity is now to be extended by the foundation of a city or colony of converts who shall be united by the common bond of faith in Divine healing as transmitted in the personal power of their leader. The official organ of this movement announces that the personification of their faith "makes her religion a business and conducts herself upon sound business principles," and their leader publicly boasts of his vast financial returns. With emphatic protest on the part of each that he alone holds the key to salvation, and that his system is quite original and unlike any other, comes the procession of "metaphysical healer and mind-curist," "viticulturist and magnetic healer," "astrological health guide and phrenopathist," "medical clairvoyant," "esoteric vibrationist," "psychic scientist," and "mesmeric occultist." Some use or abuse the manipulation of hypnotism; others claim the power to concentrate the magnetism of the air and to excite the vital fluids by arousing the proper mental vibrations, or by some equally lucid and demonstrable procedure; some advertise magnetic cups, and positive and negative powders, and "absent treatment" by outputs of "psychic force," and countless other imposing devices. But what is especially interesting, they offer diplomas and degrees after a three weeks' course of study or merely after the reading of a book. You remember that Carlyle in alluding to the number of millions inhabiting the globe remarked without any special provocation that they were "mostly fools." I think to-day he would have added a condemnatory adjective.

"A series of superstitions and extravagant systems are conspicuous in the antecedents and bypaths of the history of medicine and are related to it much as astrology is to astronomy, or alchemy to chemistry; and, because medicine in part remains, and to previous generations was conspicuously an empirical art rather than a science, it offers great opportunity for practical error and misapplied partial knowledge. The legitimate recognition of the importance of mental conditions in health and disease is one of the results of the union of modern psychology and modern medicine. An exaggerated and extravagant, as well as pretentious and illogical, over-statement and mis-statement of this principle may properly be considered as *occult*."<sup>1</sup>

As I am addressing a mixed audience, many of whom have had no medical training, it may serve some useful purpose if I review simply and briefly the evolution and growth of medicine in early days, with special reference to the occult factor in ancient and modern times.

On examining the literature of ancient Egypt, Assyria, Greece, and Rome, even by the aid of English translations, one soon realises the obscurity in which the practice of medicine was enshrouded before the time of Hippocrates—that is, about 400 B.C.; but in dealing with the medical art as taught and practised by him we are dealing with extensive, systematic, and authentic records—records recorded mostly by himself. Medicine anterior to the "father of medicine" is not only, historically speaking, enveloped in mystery, but we find that the medicine-man revelled in mystery and his practice bristled with occultism, while, on the other hand, exponents of occultism found a happy hunting-ground in the field of medicine.

The evolution of the medical art is probably contemporaneous with the development of the higher anthropomorphic attributes in man. It cannot, of course, be doubted that instinct in the lower animals leads them to abstain from, or to safeguard themselves against, what might prove hurtful to their health, and instinct also leads them to seek out and to adopt what is likely to be beneficial. In a sense, therefore, we may allow that a kind of *preventive* medicine was in force previous to the evolution of man, but it may be safely surmised that *curative* medicine was not practised till man attained a certain degree of intellectuality and civilisation. Though the domestic animals in many instances show a marked appreciation of the medical and surgical aid they occasionally receive at the hands of man, we seek in vain

for any general evidence of initiative on their part in the practice of either medicine or surgery. An animal stricken with disease usually hides away in the nearest corner, and if the disease be a mortal one dies with more or less resignation. In some species his fellows, recognising his plight, will decide to put the victim out of his pain by a somewhat crude attempt at euthanasia. Preventive medicine in man, we may safely assume, therefore, preceded the evolution of the curative art and was coeval with the higher development of the reasoning faculty.

Medicine as a *profession* is probably older than the Church and the civil law—it certainly is older in superstitions, traditions, and ethics. The early tendency to the formation of associations and societies which is such a feature of to-day is found in the Asclepiadæ of Greece, the priest-doctors of ancient Egypt, the Lamas of Central Asia, the Vaidhyas of India, the Druids of ancient Britain, and the fraternities of the Middle Ages. In very early times, however, the profession of medicine was rarely practised alone and was usually combined with the priesthood; this combination was even continued so recently as the early and middle ages of Christendom, where the industrious monks were not only largely concerned with the production, maintenance, and dissemination of literature and science, but included within their ranks the doctors. The medical missionaries of to-day are the modern analogues of the priest-physician of old. They have the advantage, however, of carrying to distant climes an excellent system of ethics and a competent knowledge of the science and art of medicine, whereas the very mythological character of the ancient religions were bound to tincture the medicine of the superstitious doctor with that belief in the occult and mysterious which has always retarded the progress of medicine and of all knowledge. The general belief in the occult which is still fostered in most of us by the teachings of the nursery proves a powerful weapon now as formerly in the hands of the charlatan, the quack, the fortune-teller, the spiritualist, and the faith-healer—of all who make it their business to prey on a credulous public.

In the leading articles which will appear in many of the daily papers to-morrow you will probably find that practitioners of medicine are alluded to as "followers of Æsculapius" or as "students of the Æsculapian art"; these, and expressions of a similar kind, will naturally suggest to you that Æsculapius was the first personage who made any great reputation as a physician. Now, whether Æsculapius was a real man or merely a god of the usual mythological character is not quite clear. Hippocrates claimed to be the eighteenth in descent from Æsculapius, and this would seem to settle the point that he was really a man, but you must bear in mind that 2000 years before the Christian era the College of Heralds thought nothing of tracing a man's descent back to one of the gods, especially if his liberality in the matter of fees appeared to warrant such a pedigree. Not only is it not certain whether Æsculapius was a mythological personage from the start, or whether he was really a medical man and afterwards deified by the Greeks (who represented him as the son of Apollo), but there is equal uncertainty as to his nationality. He has been claimed as an Egyptian by birth, and he may well have been so, as in those days the Egyptians were a highly-learned nation, and Greece was early colonised by them, a compliment which the Greeks returned later. Certain it is, however, that the more intimate descendants of Æsculapius formed themselves into a priesthood, later known as the Asclepiadæ, and founded temples which had a three-fold character—they were at once places of worship, hospitals, and medical schools. Under their influence medicine became a regular profession, but in these early times internal medicine seems to have been kept distinct from surgery, the latter being usually combined with some trade, a condition which obtained even down to the last century, and the dissociation of surgery from the art of the priest-doctor may account for the undoubted fact that there has always been less occultism associated with surgery than with medicine. It is true that the dissociation of medicine and surgery was not universal, for it is alleged that Æsculapius had two sons who greatly distinguished themselves as physicians and surgeons at the siege of Troy in 1814 B.C. Whether these persons really acted as general practitioners or not is immaterial—there was no "double qualification" necessary in those days; but there is very clear evidence that many centuries before Hippocrates (who practised about 400 B.C.) the division of labour was so great that specialism was carried to the most ridiculous extremes by the Egyptians.

<sup>1</sup> Jastrow: "Fact and Fable in Psychology." Macmillan, 1901.

The priest-doctor was only allowed by law to practise one speciality. How many specialities the human body was then divided into I am not prepared to say, but every organ and every system apparently had its special exponent. We learn that those who treated fractured bones were not permitted to deal with diseases of the joints other than fractures; physicians for stomach complaints were by law debarred from treating diseases of the heart; again, a surgeon could not treat a patient with disease of the intestines, though he should have a first-rate knowledge of internal complaints. Fancy how galling it must have been to the surgeons of those days to have been obliged by law to hand over their cases of appendicitis to the physician whose speciality was the right iliac fossa. Again, picture an otologist who was not allowed under any pretext to insert his finger into the naso-pharynx of a deaf child—I am sure you cannot imagine what his feelings must have been. It is satisfactory to learn, however, that these specialists had to go through a regular medical curriculum which was not confined to their own special line of business; and the most gifted senior students were sent from Alexandria on a post-graduate trip to Heliopolis and other polyclinics in the same way that intending specialists go to Vienna and other places to-day. The medical men of Alexandria lived at Thebes in a quarter of their own just as consultants do here. Another pleasing feature, which has unfortunately no counterpart now, was that there would appear to have been actually enough staff appointments to go round, for each medical man, we learn, was attached to a hospital. When medical aid was required in private practice the messenger hastened not to the Harley-street area of Thebes where the specialists resided with their families, but hied him to the nearest hospital where the "Principal of the medical staff of the Sanctuary," as he was called, questioned the messenger as to the symptoms from which the patient was suffering, and he selected the man he thought entitled to the case. You may smile at this method of making a diagnosis without examining or seeing the patient and from a necessarily imperfect report of the symptoms, but it finds a parallel in the extraordinary and illogical mental attitude of so many of the laity at the present day. Laymen of a certain type see nothing ridiculous in undertaking without any medical knowledge to make a diagnosis of their own case and they either consult a quack institute by letter or else seek advice through the correspondence column of a newspaper, or prescribe for themselves a proprietary or "patent medicine" to be obtained at the nearest drug stores, "pouring drugs of which they know little into bodies of which they know less." Diagnosis is the part of medicine where accuracy can least be dispensed with—can least be arrived at in a haphazard and inexact way. Given an accurate diagnosis it is comparatively easy to get some idea of treatment from books, but treatment not based on reasoned diagnosis is valueless and sometimes far from harmless. There is an impression to-day—an impression often enough wrong, but one which we have little concern in correcting—that gratuitous medical services are rarely worth much, but the Alexandrian doctors took no fees from the patient. Their temples were maintained by a regular share of the State revenues, by gifts from kings, and by voluntary contributions from the laity. How Utopian this State-supported hospital system appears to us. Fancy St. Mary's Hospital receiving from the Revenue, instead of contributing to it!

I have remarked already that before the time of Hippocrates much of the materia medica and therapeutics of the priest-doctors was kept secret. This, in addition to curtailing our knowledge of their practice, must have not only retarded advance but encouraged the pernicious idea of mystery with which medicine was regarded by the laity. We can excuse this belief in a secret remedy in those who lived 4000 years ago when superstition was everywhere because medicine was practised by those who were also the exponents of a ridiculous theology, and when belief in the occult was universal, but it is, indeed, lamentable to see the most palpable forms of heterodoxy still receiving substantial support from all sorts and conditions of men, from the lord in his castle to the workman in his cottage.

Coming now to the earlier periods of Jewish history we find evidence that sanitary science and preventive medicine were in a more advanced state than the study and curative treatment of disease. The late Professor Sharpey used to delight in calling the attention of his students to the admirable system of public medicine enforced by that

great and wise man in Israel, whom he alluded to as his "excellent co-worker in the field of science," Moses. Moses was at once his own Minister of State for public medicine and chief medical officer of health, and doubtless he was assisted by an efficient staff of subordinates. We also find Moses figuring on emergency as a physician, but just as the mythical Æsculapius was always represented in statuary and carving as armed with a stick, around which a serpent was entwined, so when Moses was working miracles or practising faith-healing *en masse* in the wilderness we find him raising aloft the serpent, the symbol of office of the priest-physician. A *propos* of this, the belief in the miraculous power of rulers had its counterpart in modern times, for English sovereigns from the days of Edward the Confessor down to the time of Queen Anne regularly "touched" for the cure of the king's evil. The affair, however, does not appear to have always been a very disinterested one, as the patient's pocket was touched as well as his person. It is recorded that Charles the Second, of impious memory, made as much as £10,000 in one year out of this ridiculous practice. It is no wonder, then, that in those days every self-respecting practitioner with any confidence in himself laid claim to the performance of at least an occasional miracle, and this claim was often made with perfect sincerity. Our knowledge that the undoubted influence of the mind on the body and the influence of suggestion and expectant attention applies only to subjective states and functional disease enables us to understand why so many people in former days, on the principle that seeing is believing, were able to testify to miraculous cures within their own experience. It never occurred to them that there was an essential difference between functional and organic disease.

In the Bible the physician is with great frequency alluded to in a symbolic sense, but apart from these allusions there are distinct references to men who actually practised the art of medicine. Moses refers to the preparation of the sacred oil "after the apothecary's art," and Job, who may be excused for a certain amount of pessimism, spoke of his councillors as "physicians of no value." The Biblical references as a whole are nevertheless decidedly complimentary to the profession and in one instance embarrassingly so, for we are told of King Asa that when his disease was exceeding great he "sought not the Lord but his physicians."

The leading principle of the stupid homœopathy revived a hundred years ago, that "like cures like," was a mere reproduction of a very ancient medical aphorism. From the alleged fact that worms come out of the noses of sheep suffering from "staggers" or "turning fits" it was concluded that the larvæ of worms coming from the sheep's nose would be an effectual remedy in epilepsy in man, and as early as B.C. 560 Trallianus tells us that at two distinct utterances of the Oracle of Delphi these worms were recommended to be used by no less a patient than Democritus of Athens who suffered from epilepsy. You will be interested to know how the famous orator "used" the maggots. Like a sensible man, he did not eat them *au naturel* nor did he swallow them disguised as a bolus, but, being doubtless an unquestioning believer in amulets, he merely put the worms in a bag which he tied round his neck. Cure was, of course, unlikely. At the present day the homœopathic system is, medically speaking, exploded and discredited, but as a means of attracting the more credulous of the public its power is, if diminished, still considerable.

Passing now to Hippocrates, we find that he lived in the best and most prosperous period of Greek ascendancy. He was born in 460 B.C. and was the contemporary of such learned men as Socrates, Plato, Xenophon, Pindar, Thucydides, Æschylus, Euripides, Sophocles, Aristophanes, and Herodotus. He was a voluminous writer and codified the medical knowledge and traditions which had been handed down by the Asclepiads; he was not really the "father of medicine," as he is usually styled, but he was evidently, intellectually and practically, head and shoulders above his predecessors. One of his aphorisms, "*Vita brevis ars longa*," has passed into the ordinary speech and literature of all nations. I cannot better indicate what manner of man he was than by reading you the Oath of Hippocrates, and it will perhaps be more convenient to all present, not excluding myself, if I give it to you in English rather than at first hand in the language in which it was spoken and recorded.

I swear by Apollo the physician, by Æsculapius, by his daughters Hygieia and Panacea, and by all the gods and goddesses, that to the best of my power and judgment I will faithfully observe this oath and

obligation. The master that has instructed me in the art I will esteem as my parent, and supply, as occasion may require, with the comforts or necessities of life. His children I will regard as my own brothers; and if they desire to learn I will instruct them in the same art without any reward or obligations. The precepts, the explanations, or whatever else belongs to the art, I will communicate to my own children, to the children of my master, to such other pupils as have subscribed to the physician's oath, and to no other persons. My patients shall be treated by me to the best of my power and judgment in the most salutary manner, without any injury or violence; I will neither be prevailed upon by any other to administer pernicious physic, or to be the author of such advice myself. Cutting for the stone I will not meddle with, but leave it to the operators in that way. To whatsoever house I am sent for I will always make the patient's good my principal aim, avoiding as much as possible all voluntary injury and corruption. And whatever I hear or see in the course of a cure, or otherwise, relating to the affairs of life, nobody shall ever know it, for it ought to remain a secret. May I be prosperous in life and business and for ever honoured and esteemed by all men as I observe this solemn oath; and may the reverse of all this be my portion if I violate it and forswear myself.

You will observe the obligation under which he felt himself to be to his teacher—he even promised to provide him if necessary with the comforts of life; the sentiment is so admirable that on behalf of my colleagues and myself I would ask those of you who are prepared to take the Oath of Hippocrates to remember the professional support which this master in medicine swore to render to his former teacher. Again, he had some sense of professional etiquette. Although he makes no allusion to what he would do in intussusception, yet he is prepared to leave a small field absolutely in the hands of the surgeons; cutting for stone he will even “not meddle with, but will leave it to the operators in that way.” There is, however, here a covert suggestion of “meddlesome” surgery. The sentence in which he promises professional secrecy in reference to whatever he “might hear or see in the course of a cure or otherwise” is specially interesting as showing that he set out as no charlatan promising to cure everybody. He clearly anticipated that some of his results, like ours of to-day, would be “otherwise”; in fact, in spite of his pre-eminence over his fellows, his knowledge of anatomy and physiology was so crude and his pathology so humorous that we might wonder that the founder of the Humoral System of pathology had any results which were not more or less “otherwise.” I will not detain you with an account of the erroneous notions which Hippocrates held in normal and morbid anatomy, but the explanation is simple: owing to extreme reverence which the Greeks had for the dead he was absolutely debarred from learning anything by anatomical dissections and post-mortem examinations. His knowledge of anatomy in health and disease was derived from the writings of those of his predecessors who had occasionally availed themselves of opportunities for actual dissection. His acumen, however, as a clinical observer of the course and symptoms of disease was of a very high order. He founded his views on facts when facts were at hand, and so far his observations on diet, on climate, on expectant treatment, and on the *vis medicatrix nature* combined with good nursing, are not unworthy of perusal to-day; but it was when, relying on the records of others, he dealt with what he supposed to be facts, that he gave way to that free play of the imagination which resulted in his system of humoral pathology. Whilst essentially a clinical observer Hippocrates seems to have employed a number of drugs in use at the present day—and his materia medica was extensive if peculiar. He frequently employed venesection. He was a believer in the theory of opposites which shows that he was no homeopathist. Hippocrates, however, with all his knowledge had his superstitions—he believed in “critical days.”

Herodicus, a contemporary of Hippocrates, was the first to adopt gymnastic exercises in the treatment and cure of disease, and we have here the beginning of movement cures and similar therapeutic measures which have attained great popularity and some distinct success at the present day. These, like everything else, have been outrageously quacked; and as an instance I may mention the case of a patient of mine who was induced by one of her titled and fashionable friends to go to a Swedish masseur who held a diploma in his own country; and this charlatan promised to “disperse” a sebaceous cyst of the scalp by a course of movement treatment. I think that you will agree with me that if he had succeeded in doing so he would have well earned the mere matter of £100 which was the fee asked. A suggestion that payment should be made on dispersal of the tumour, and not in advance, led to the abandonment of this interesting course of treatment.

About 300 B.C. Philenus founded the School of “Empirics”;

anatomy and physiology were dismissed as useless, and in the treatment of disease experience and observation alone were depended upon. The Empirics rejected the doctrine of occult causes of disease as taught by Hippocrates, though this doctrine was adopted later by the Dogmatics. Aristotle, who was born in 384 B.C., began his medical studies well—i.e., by actual dissections on the cadaver and on the lower animals, and he was really the founder of comparative anatomy. As every schoolboy knows, he later elaborated a system of philosophy, which was plausible, comprehensive, and mostly absurd; by amalgamating his philosophy with the medical teaching of Hippocrates he not only succeeded in founding the School of Dogmatics, but added materially to the retardation of medical progress during the next 1000 years.

Soon after the Christian era the more prominent physicians of all sects and factions came together in an agreement that no one sect contained all the truth. Under the title of the Eclectic School they claimed to select all that was good and useful and to reject all else. I will not weary you with the names of those who brought this school into prominence, but I must mention one of them—Cleombrotus—for he holds a record, which, I believe, stands to-day: he received a fee of 100 talents, a matter of £15,000, for curing King Antiochus of a dangerous disorder. Apart from this the Eclectics seem to have been a failure.

When one considers the high position attained by literature, the lofty standard reached in poetry and the drama, and the super-excellence of the Greeks in sculpture, painting, and architecture, it is a matter for much wonder that such slow progress was made in medical science. Even in anatomy, where there was a concrete basis and well-defined sphere of research, the advance of knowledge was tardy; the historians gravely record how this or that membrane was detected, or when certain bones were distinguished and named, just as the astronomer tells us that in this or that year a planet was discovered. Physiology and chemistry as exact sciences could scarcely claim to exist.

Turning from the Greeks to the Romans, the first Latin writer of any celebrity was Cornelius Celsus, who flourished about the commencement of the Christian era; he has given us a valuable summary of the medical practice of his time. There seems some doubt, however, as to whether he ever really practised the medical art. It was not until the time of Claudius Galen (born A.D. 131) that medicine arrived at the stage of puberty. His researches on anatomy, physiology, pathology, chemistry, and, in fact, every department of medicine, were published in no less than 500 treatises, only some of which are now extant. In anatomy he was the first to describe the popliteus, the platysma myoides, the sterno-hyoid, and many other muscles. He seems, however, to have been much better up in anatomy than physiology, for we find him attributing the essential phenomena of life to certain “occult forces” inherent in the several organs; these forces, the vital, the animal, and the natural, he located in the heart, brain, and liver respectively. Galen's leading dictum was that “health is maintained by supplying similar with similar, whilst disease is overcome by opposing contraries to contraries.” The plan of treatment in Galen's time mostly consisted in giving particular remedies for particular diseases—specific treatment, in fact. Even Galen, you see, could not get away entirely from a system, and when he and his contemporaries speak of a rational system of therapeutics they do not attach the same interpretation to the word “rational” that we due to-day; they believed in specifics yet they had little knowledge of those diseases which are now known to be really due to specific causes—e.g., those of microbic origin. To-day a large number of even the educated public take much the same view that diseases are little more than ideas, occult forces in various organs, diagnosable without skill, and readily “dispersed” by advertised specifics or by various occult methods.

Time does not admit of my tracing the vicissitudes of medicine through the dark ages. It reached its lowest ebb in the seventh century when Mahomedanism invaded Europe. In mediæval times necromancy was rampant, and even Roger Bacon, who flourished in the twelfth century and is spoken of as the founder of experimental science, could not shake off the illusions of astrology and alchemy. The sixteenth century was the age of epidemics and, of course, of quacks, for it is in periods of emotional excitement that people will, literally and metaphorically, swallow anything. In more recent times waves of occultism have been marked by the

appearance of mesmerism, homœopathy, spiritualism, theosophy, and, lastly, various forms of faith-healing, with Christian Science at the summit of this bad eminence.

Christian Science cannot be dismissed without some examination in one of its aspects. I remember a recent conversation with an earnest believer in faith-healing who was convinced that his family when sick would be much better treated and would get much better results from his own peculiar system of therapeutics than from ordinary medical practice; and after listening patiently to my arguments, which were directed to demonstrate that a belief in such a system was a return to the occultism of mediæval times, he asked me the very pertinent question, whether I and the bulk of medical men did not encourage, or at all events countenance, not only prayers for the sick but prayers by the sick, as a real and material aid in the treatment of disease; and when I replied that *in a sense* it might be so he demanded that I should explain how a belief in the possible interposition of God in altering the course of disease could be regarded as anything less than a belief in the miraculous and the occult—a belief in something just as miraculous as would be the altering of the stars in their courses. He proceeded to condemn medical men as themselves believing in and countenancing the occult in medicine whilst they reprobated the doctrine of occultism as practised by others outside their own narrow ring, and he pointed out that until medical men had extracted the beam from their own eye they were scarcely competent to deal with the obliquity of vision of those who were in competition with them. We must face an argument of this sort—it is rather an accusation than an argument—which is freely levelled against us when we denounce the fads of the present day which come within the province of the miraculous and occult. The question is, Do medical men believe in prayer as a therapeutic agent? If those in this room who believed generally in prayer were asked to stand up it is probable that there would not be many, if any, left seated. The moral and intellectual gain which accrues from that earnest introspective meditation and examination which is an essential process in efficient prayer can be productive of nothing but good if rightly exercised. If asked, however, whether you believed in the efficiency of prayer in altering for the better the progress of real bodily disease it is probable that in this mixed audience many would prefer not to give a plain answer of yes or no. We all know what our mothers would reply, or would have replied to this question, for did they not in their simple faith instil into us the efficacy of prayer under all circumstances? This doctrine, though admirable in the cramped environment of the nursery, has, I imagine, appeared to require modification with the expansion of our physical and mental horizon. The specific question is, Can a *supernatural* effect result from prayer under any circumstances in the course of sickness? If we are unable to face this question we are unable to face the Christian Scientists and faith-healers. The question has been put to me again and again in discussing this subject during the last 12 months. My answer is this, that so far as I know, prayer as an agent in the treatment of organic disease is neither taught nor even alluded to in the teaching of medical men of the present day. It is not mentioned in our treatises on medicine, it is not alluded to in the class-room or lecture theatre, it has no medical place in the wards. It is quite unlikely that there would be a conspiracy of silence on such an important matter, for if we believed even in the occasional possibility of Divine intervention, and were treating a case of, say, tuberculosis of the larynx, it would be the first therapeutic agent adopted rather than the last. I know that some timid folk will think I am treading on dangerous ground in raising the question of what is the truth in this matter. Divine healing to-day is neither taught by, nor known to, the orthodox medical profession. I am not aware that it is an article of faith absolutely demanded by the Church, though it is doubtless held as a "pious opinion," and possibly taught, in some quarters by worthy persons; but it is an opinion which the bulk of the orthodox medical profession could only accept after overwhelming evidence. Is there any evidence? The fact is, religion and theology have nothing to do with medicine, and that is the strongest and shortest answer to the Christian Scientists. One is asked why a large number of medical men go yearly to St. Paul's under the auspices of the Guild of St. Luke the Physician. They go, of course, because they belong to the Christian faith, but their going does not imply any narrow

theology. Theology has no more to do with medical science than it has to do with mathematics, or, to put the matter more concretely, it has no more to do with a vesical calculus than it has to do with the differential calculus.

We must allow in the most generous manner the enormous indebtedness of medicine in the past to the various religious orders which fostered it, but the partnership has persistently suffered from the defects of its qualities; there has always been, both in modern times and in the age of paganism, too much of the superstitious encumbrances of religion engrafted on medicine; medicine has been inoculated and impregnated with the least defensible pretensions of religion. The calling of the priest and the medical man are now usually practised separately, and rightly so, as they are essentially distinct, and we must now admit unreservedly that all physical science, and therefore medical science, has, from a *practical* point of view, nothing whatever to do with theological beliefs. I know that I may be thought to be going beyond the teaching of Herbert Spencer, who has devoted some space in his "First Principles" to the examination of the question whether there is not some common region in knowledge where science and religion meet; but I am afraid that you will find little comfort or illumination from Spencer's conclusion, which is that ultimate religious ideas and ultimate scientific ideas, if pursued far enough, will be found to arrive at the stage where the most certain of all facts will be that "the Power which the universe manifests to us is inscrutable"; in other words, that the researches of science and the speculations of religion ultimately lead to a veritable *terra incognita* where is nothing but the Unknown and the Unknowable. Lest you may think that I am retailing doctrines dangerous to young men who have just left a public school which should render those subscribing to them outside the pale of the Christian Church, let me read you an extract from a lecture delivered some years ago on behalf of the Christian Evidence Society by a former Regius Professor of Divinity at Oxford, Dr. Payne Smith. Speaking of the then current antagonism between religion and science he says:—

And first, revelation has nothing to do with our physical state. Reason is quite sufficient to teach us all those sanitary laws by which our bodies will be maintained in healthful vigour. If the Bible condemns drunkenness, gluttony, and the like it does so not for sanitary reasons but for moral reasons because they are sins. So revelation has nothing to do with our mental powers; whatever we can attain to by our mental powers we are to attain by them. Physical and metaphysical science alike lie remote from the object matter of revelation. Because God has, in the Bible, given us revelation in an informal way, in order, perhaps, to commend it to our entire nature, people often forget that its proper object matter is simply the moral relation in which man stands to God, especially with reference to a future state of being. Religious men forget this, they often take up an antagonistic position to science, and try to make out systems of geology and astronomy and anthropology from the Bible, and by these judge all that scientific men say. Really the Bible never gives us any scientific knowledge in a scientific way. If it did it would be leaving its own proper domain.

If time had permitted I should have liked to have dealt with some forms of present-day quackery—e.g., bogus institutes for the deaf and the sale of expensive ear-drums and other forms of aural humbug which I have had special opportunities of becoming acquainted with.

I may be expected to draw some moral from this necessarily imperfect sketch relating mostly to the seamy side of medicine. Will the spread of education render the general mass of the people, especially those particularised by Carlyle, more capable of distinguishing between fact and fable in psychology? Will it render them less gullible and less liable to be led away by waves of emotional heterodoxy? I confess that I am not very sanguine on this point, for what are termed the educated classes are amongst the worst offenders. Will the educating of the youth of the country in the elementary facts of physiology, in the laws of health, and in the principles of observation and reasoning aid us much? Again I am not sure, for we know the proverbial danger of a little knowledge. I think that something, however, can be done by the healthy and active influence of members of the medical profession working individually and seizing every opportunity of instructing individual members of the laity on points concerning which they are liable to form and hold false views. To take a specific example, small-pox is now very much in the air. How shall we overcome the prejudices of that well-meaning but dangerous person the "conscientious objector" to vaccination? We must first make ourselves acquainted, not only with the history and facts of the subject, but we must carefully study the standpoint of

our opponent, and then by friendly argument, by the loan of literature, and such means, endeavour to induce him to look at the matter, even if only for a few minutes, from our point of view. These educational means, which have been unostentatiously worked in the past, require to be pushed with extra vigour by all of us in the future if we are to make further headway against heterodoxy, quackery, and occultism.

#### ABSTRACT OF

### An Address

ON

## THE PRESENT TREATMENT OF INOPERABLE CANCER.

*Delivered before the West London Medico-Chirurgical Society on Oct. 4th, at the Opening of the Session 1901-1902,*

By ALFRED COOPER, F.R.C.S. ENG.,  
PRESIDENT OF THE SOCIETY.

GENTLEMEN,—The honour which you have done me by electing me as your president is one of the greatest honours which I have yet received, for, although the West London Medico-Chirurgical Society is young in years, it is, I believe, by far the most active in its work and growth of all the other medical societies in London. On taking the chair for the first time I have thought that I cannot do better than draw your attention to a consideration of the present treatment of inoperable cancer, a disease which has attacked the highest in the land and which is certainly becoming more prevalent.

It is unnecessary for me as a surgeon to state that in cases where the disease together with the enlarged lymphatic glands are in such a position that their removal can be effected without too great a risk to life, this should be done thoroughly and at once, and that no valuable time should be wasted in trying any suggested cancer cures. It is in the cases of so-called inoperable disease that it is not only justifiable but also wise to try these new remedies, since a patient with recurrent cancer will be only too glad to run any risk or to undergo any discomfort which gives the slightest chance of relief. During the last decade attention has been drawn by several distinguished surgeons to a number of methods of treatment as follows, and I will briefly give you the information which I have been able to collect on the subject: (1) inoculation with the streptococcus of erysipelas; (2) subcutaneous injection of Coley's fluid; (3) subcutaneous injection of anti-cancerous serum; (4) oöphorectomy; (5) thyroid feeding; (6) lymph gland extract; (7) treatment by Roentgen rays and by Finsen's light; (8) injection of various irritating substances and the production of aseptic suppuration; (9) electricity; and (10) drugs. When considering what benefit has been derived from any particular method of treatment, it must, however, be borne in mind that different forms of malignant disease behave in a manner peculiar to each growth, and that some of the atrophic forms of cancer of the breast have been known to diminish and even to disappear spontaneously.

#### INOCULATION WITH THE STREPTOCOCCUS OF ERYSIPELAS.

Nearly 200 years ago it was observed that a certain number of malignant growths disappeared after an attack of erysipelas, and attention has recently been drawn to the subject by Fehliessen and Billroth, who have reported cases of inoperable sarcoma cured by an attack of erysipelas. After the discovery of the streptococcus Fehliessen suggested that an inoculation of a cultivation of the organism might be used to produce a like result; he succeeded five times in producing erysipelas by inoculations of pure cultures of streptococcus in patients suffering from malignant tumour. He obtained a cure in a case of cancer of the breast, and in four other cases there was temporary atrophy of the tumour.

#### SUBCUTANEOUS INJECTION OF COLEY'S FLUID.

No satisfactory fluid was, however, obtained until Coley of New York introduced the use of the mixed toxins of the streptococcus of erysipelas and the bacillus prodigiosus.

The preparation of the fluid was based on the discovery of Professor Roger of Paris, who found that the addition of a non-pathogenic micro-organism—the bacillus prodigiosus—to cultures of certain pathogenic micro-organisms, greatly enhanced the virulence of the latter, and among these organisms was the streptococcus of erysipelas. At first Coley mixed together the most virulent streptococcus cultures obtainable with that of the bacillus prodigiosus in the proportion of four of the former to one of the latter, sterilising the mixture by filtration, and preserving it by the addition of a little thymol. He now, however, makes the fluid by inoculating peptonised bouillon from the colonies obtained by passing the micro-organism of a fatal case of erysipelas through a rabbit's ear. The growth of the germ is then carried on for three weeks at a temperature of from 30° to 35° C., after which the flask is inoculated with the bacillus prodigiosus. The fluid is then exposed to a room temperature for 10 days, when, after being thoroughly shaken, the cultures are transferred to small sterilised glass-stoppered bottles, and sterilisation is ensured by exposing these to a temperature of 60° C. for an hour. The injections are made into the substance of the tumour itself, and the rule is to begin with a minimum dose and slowly to increase each day until the desired action is obtained. Toxins produced from very virulent cultures, mixed and unfiltered, should never be given in larger initial doses than half a minim, boiled water being added to obtain dilution. Each day the dose should be increased by half a minim until the reaction temperature reaches 102° or 103° F. The amount required to produce a feeling of chill, and a temperature of 102°, varies with the individual case, but one or two minims will generally be sufficient. The effects of the injection are rather unpleasant, nausea and vomiting frequently occurring after severe reactions, and after slight reactions, headache, muscular pains, especially in the back, and a feeling of general malaise. If no beneficial results are apparent after three weeks' treatment Coley believes that it is useless to continue the injections, since in nearly all of his successful cases marked improvement was seen within a week of the first injection. When apparent benefit results from the treatment and there is no contrary indication to its continuance it may be kept up for four months, with occasional intervals of rest. Coley has used the fluid in 148 cases, and out of these 24, or 15 per cent., improved. Six of these cases afterwards recurred, but the remaining 12 per cent. were permanent successes, some of the cases having remained well for six years. Coley has also collected 35 cases treated by other surgeons; out of these cases in 26 the tumour disappeared completely. Most of these cases had been diagnosed as sarcoma by both clinical and microscopic examination. Two cases were reported by Moullin in which death occurred in consequence of the injections. In the first case the patient was a man of about 70 years of age with a large vascular tumour of the femur; the other died from pyæmia. It was found that the greatest chance of improvement was in spindle-celled or mixed-celled sarcoma. Coley himself considers the results in carcinoma to be unsatisfactory.

#### SUBCUTANEOUS INJECTION OF ANTI-CANCEROUS SERUM.

Last year Vlaieff introduced in Paris a method of treatment of advanced malignant disease by inoculation with a special anti-cancerous serum. He stated that he obtained from malignant tumours certain parasitic cells, called blastomycetes, which had the power of producing abdominal cancer in guinea-pigs when inoculated into the peritoneum. Having done this he endeavoured to immunise several different animals, but he only succeeded in getting an active serum from pigeons, fowls, and geese. This latter serum inoculated into rats prevented the development of cancer after subsequent inoculations with the blastomycetes. In man he inoculates 10 cubic centimetres of serum obtained from geese, and the dose, though considered free from any danger, produces a considerable local and general reaction. Vlaieff states that he has treated 60 cases of human carcinoma by this method. When it was administered early, before ulceration and glandular enlargement, the serum was capable of exercising a curative effect.

#### OÖPHORECTOMY.

The treatment of inoperable cancer of the breast by oöphorectomy is one of the most interesting subjects brought forward during the last few years. Much of our knowledge of the subject we owe to Mr. Stanley Boyd, from whose paper in the *British Medical Journal* I have freely drawn in

the following remarks. The first operation of the kind was performed by Dr. G. T. Beatson, of Glasgow, in 1896, and, although the patient was suffering from a large recurrent and inoperable growth of the breast, eight months after the operation all trace of the disease had gone. She died, however, from a recurrence nearly four years later. According to Mr. Boyd, Dr. Beatson was led to consider that oöphorectomy would be useful in treatment of inoperable cancer of the breast by the following consideration: "In lactation there is rapid multiplication of mammary epithelium; the cells undergo fatty degeneration as fast as they are formed, break down, fall into the lumina of the gland acini, and come away in the milk. Beatson learnt that certain farmers spayed lactating cows in order to maintain permanently or for a long time the above state of matters, resulting in the secretion of milk. In cancer also the mammary epithelium multiplies rapidly, but, instead of undergoing fatty degeneration and being cast off, it distends the acini, penetrates into the lymph spaces of the breast, and there, floating in a nutrient fluid, it continues multiplying and forcing its way onwards towards the lymphatic glands. As oöphorectomy in the cow maintains fatty degeneration of the epithelium of the lactating breast, Beatson thought that it might induce fatty degeneration of the epithelium of the cancerous breast. Accepting menstruation as the evidence of ovarian activity, Beatson was inclined to believe that the cessation of lactation was due to the re-establishment of the influence of the ovaries, which influence had been suspended by the gravid uterus, and thus removal of the ovaries resulted in the indefinite continuance of lactation. It further occurred to him as possible that cancer of the mamma might actually be due to some 'ovarian irritation' or to 'some defective steps in the cycle of ovarian changes,' and that removal of the ovaries might bring cancerous cell-proliferation to a standstill or induce fatty degeneration of the cells as seen in lactation." About the same time that Dr. Beatson reported his first case, Mr. Pearce Gould showed a woman who, six months before, had been apparently moribund with secondary cancer in the breast, in the supra-clavicular glands, in the right lung, and in the femur, and in whom without any treatment the cancer began to disappear, the menopause having occurred a year previously. Three years later she was in good health and free from disease. Mr. Boyd last year collected 54 cases of oöphorectomy for cancer, which were in no way selected cases, but included the whole experience of several surgeons. As a conclusion, he considers that on an average life was prolonged six months by the operation. Out of the 54 cases, 19, or 35 per cent., were more or less markedly benefited by the operation, and only one died. Mr. Boyd thinks that oöphorectomy should be offered in all cases, other than the very acute, of inoperable mammary cancer in women over 40 years with no visceral or bony lesions, and before the menopause. Cancer in other parts of the body, even in the uterus, is quite unaffected by oöphorectomy.

#### THYROID FEEDING.

The treatment of inoperable cancer by thyroid feeding is also due to Dr. Beatson, who considers that the so-called cancer bodies are not parasites but are cells undergoing mucoid degeneration, and he therefore thought that a free administration of thyroid extract might influence them greatly and in time effect a cure. Dr. Beatson employed the treatment in three cases; but in two of these it was associated with oöphorectomy, so that the improvement noticed was probably due to that cause; in the only case in which thyroid extract alone was given no improvement followed. Soon after this Dr. Frederick Page of Newcastle reported the case of a woman from whom he had removed a tumour of the breast and who within a few months developed a large and inoperable recurrence. Thyroid feeding was commenced with three-grain doses, and this was increased till 15 grains of the extract were given thrice daily, and at the end of 18 months the tumour had disappeared. It is interesting to observe that a fresh nodule of recurrent growth appeared during treatment. A further report of the case states that six months later the growth had commenced to increase and was quite unaffected by thyroid feeding. Another physician, Dr. R. Bell of Glasgow, was favourably impressed with the use of thyroid feeding and tried it in two cases of epithelioma of the cervix, and states that he obtained satisfactory results. Mr. H. T. Butlin, on the other hand, tried it in a good many cases, but has not obtained even temporary benefit in a single case. It should be noted that the favourable cases have been carcinoma of the breast, and there is no evidence

that the treatment can be of any service in carcinoma of other parts.

#### LYMPH GLAND EXTRACT.

Somewhat analogous to thyroid feeding is the treatment by means of freshly-prepared lymph gland extract which has been recommended by Dr. H. Snow. Four grains of the extract are given in capsules, one being taken after each meal. Dr. Snow states that he has used this treatment in several cases of mammary cancer and that it resulted in considerable improvement.

#### TREATMENT BY ROENTGEN RAYS AND BY FINSSEN'S LIGHT.

Several cases of rodent ulcer have been treated in the West London Hospital by means of exposure to x rays. Although they can scarcely be classified under the heading of inoperable cancer, still they have a distinct bearing on the subject. In applying the treatment the surrounding parts of the face, especially the eyes, are protected by means of a lead mask and a vacuum tube connected with a coil giving a 10-inch or a 12-inch spark is used. The vacuum tube is placed about five inches from the ulcer and an exposure is given daily for from 10 to 15 minutes. The ulcer is usually healed after about a month or six weeks. A few months ago Mr. Andrew Clark recorded a case of chronic cancer of the breast which was treated by x rays. The patient was a woman, aged 60 years, who had noticed a lump in the breast for nearly seven years. She had declined operative treatment and the lump had grown and ulcerated till the whole breast was replaced by a large ulcer. There were enlarged glands in the axilla. The x rays were applied five days a week for 15 minutes each day and at the end of two months the general condition had improved, the pain had lessened, the ulcer had cleaned and become smaller, and the axillary glands were getting less. This, as far as I can find, is the only case of cancer of the breast treated by the x rays, and it must be noted that it was of a very chronic type, its behaviour being more like a rodent ulcer than a scirrhus. The action of the x rays is almost similar to that of Finsen's light treatment, and several cases of rodent ulcer have been treated by that method; the treatment, however, is more painful than that by the x rays, and does not possess any advantages. Too few cases have been treated by either method to form any definite conclusion.

#### INJECTIONS OF VARIOUS IRRITATING SUBSTANCES.

Under this heading are included a number of rather diverse methods, the action of most of which is to excite inflammation in the tumour. Among these are (1) the parenchymatous injection of acetic acid; (2) the parenchymatous injection of alcohol; (3) the parenchymatous injection of methyl violet; (4) the parenchymatous injection of the venom of the cobra di capello; and (5) artificially produced suppuration, either (a) by oil of turpentine, (b) by arsenious acid, or (c) by calcium carbide.

*Parenchymatous injection of acetic acid.*—More than 30 years ago, in 1866, my attention was drawn by Sir William (then Dr.) Broadbent to the method of treating inoperable cancer by the parenchymatous injection of acetic acid. The injection must be made slowly, and Sir William Broadbent lays stress on a large quantity of a weak solution, as much as 80 minims, being preferable to a smaller quantity of a strong one. He employed the strong acetic acid of the British Pharmacopœia, diluted with three or four parts of water. A great number of injections have to be made and in some cases they were repeated daily. It was not claimed for this method that it was curative, but that it prolonged life and rendered the patient's suffering less severe. Sir William Broadbent treated some cases of recurrent cancer of the breast with very satisfactory results, the tumour being cast off in large fragments and the enlargement of the axillary glands subsiding. He also treated a case of cancer of the rectum producing obstruction of the bowel, in which the growth was much reduced in size and the obstruction relieved. About the same time, too, at his suggestion, I treated a case of cancer of the rectum. The patient died from exhaustion some little time afterwards and at the necropsy it was found that the tumour of the rectum had entirely disappeared, but that the liver and other abdominal organs were extensively affected by cancer. I also used this method in the case of a labourer who was sent to me from the country suffering from a large epithelioma on the back of one hand. I injected acetic acid (1 in 7) into the growth and repeated the injection once a week for six months. The growth entirely disappeared

under treatment and the patient was so pleased with the result that he indulged in several drinking bouts; unfortunately one of them took place on the day on which I had arranged to show him at the Medical Society of London and on his way to the railway station he fell into a pond and was drowned. The friends refused to let me have the hand.

**Parenchymatous injection of alcohol.**—This was first advocated by Schwalbe and Hasse in 1872. The latter surgeon has treated 20 cases of cancer by this method but has had only one successful case, a naso-pharyngeal cancer, and even in this case a large gland was left. According to another observer 15 cases of cancer of the breast out of 18 were cured. A 30 per cent. solution of alcohol was used at first, the strength being gradually increased to 40 or 50 per cent. The amount used in each injection varied from two to 10 cubic centimetres, and an injection was made every third or fourth day.

**Parenchymatous injection of methyl violet.**—Von Maestig Moorhof introduced the treatment of inoperable cancer by injections into the substance of the tumour of a solution of methyl violet. Watery solution (1 in 500) was used, and from three to six grammes of this were injected at short intervals. In several cases considerable shrinkage of the growth occurred. This treatment has been tried in the West London Hospital without producing any benefit. It is not so painful as the injection of alcohol. I have been unable to find any evidence of a cure following the treatment.

**Parenchymatous injection of the venom of the cobra di capello.**—The dry venom of the cobra di capello was employed by Répin in doses of one-fortieth of a milligramme, injected hypodermically. This dose was gradually increased to seven milligrammes. This patient's weight increased, but there was no alteration in the tumour, the injections producing painful sensations similar to those following the streptococcus toxin. It is not likely that any further experiments will be made with this remedy, as it is both painful and dangerous.

**Artificially produced suppuration, either (a) by oil of turpentine, (b) by arsenious acid, or (c) by calcium carbide.**—Czynski treated some cases of advanced carcinoma by producing suppuration of an aseptic character. He employed injection of oil of turpentine, and although much necrotic tissue was thrown off and suppuration was well established the advance of the disease was in no way checked. The injections, too, inflicted considerable suffering on the patient. On the other hand, Wurth records a case of sarcoma of the abdominal wall treated by injections of arsenious acid into isolated areas of the growth. After a short time profuse suppuration occurred and the treatment was abandoned. The suppuration continued for several weeks, when it gradually ceased and the tumour disappeared. Up to ten years afterwards there was no recurrence. Carbide of calcium in the presence of water produces acetylene gas, and Etheridge of Chicago has employed it in cases of carcinoma of the uterus in the following manner. The organ is first thoroughly curetted, the hæmorrhage being checked by the actual cautery. After being made as dry as possible a piece of calcium carbide of the size of the thumb is placed in the cavity of the uterus, which is then firmly packed by iodoform gauze. Acetylene gas is at once evolved, which produces a large amount of froth. The patient is kept in bed for three days, when the dressing is removed and a fresh piece of calcium carbide is inserted. After a series of such applications a clean, simple ulcer remains. In two cases a cure was obtained by this method, but at present its application has been too limited to warrant any opinion being formed of its value.

#### ELECTRICITY.

There are several different methods in which electricity can be employed in the treatment of cancer. Inglis Parsons has treated several by means of currents having a high electro-motive force, the current being flashed instantaneously a number of times through the tumour. The patient is anaesthetised and insulated needles are placed into the tumour some inches apart. The current is obtained from 70 cells and has an electro-motive force of 105 volts. He commences with a current of 10 milliampères and increases it to as much as 600 milliampères, the application being instantaneous and being repeated about 50 times. Although some of Dr. Parsons's cases improved they were, however, of the class which could have been treated quicker and more certainly by operation, and one patient at least died from the shock of the use of too strong a current.

Reading of Philadelphia has reported three cases of advanced cancer successfully treated by frequent and long-continued electric punctures, a current of from 15 to 20 milliampères being used for about 10 minutes at each application. The disadvantages of this treatment are the pain and the duration. The term "kataphoresis" has been applied to the treatment by means of a strong current, in which a zinc electrode heavily coated with mercury is placed in the tumour while the negative pole is connected with another part of the body. Massey employed this treatment and believes that the oxychloride of mercury has a selective action on cancer cells. He found cocaine anaesthesia sufficient to allay the pain, so long as the current was not stronger than 150 milliampères, but as in other cases he uses currents of 500 milliampères he recommends general anaesthesia. In eight cases treated by this method improvement was seen in all. The objection to the method is the necessity for frequent and long-continued treatment and its uselessness where the lymphatic glands are involved.

#### DRUGS.

*Chelidonium majus* (celandine) enjoys a great reputation in the East Indies for the treatment of cancer, and was first recommended in Europe 30 years ago. Attention has recently been drawn to it by the publications of Dennisio and other Russian physicians, and an excellent *résumé* of the work of these physicians appears in an article in the *Therapeutico Gazette* by Spirak. Dennisio gives half a grain of the extract in peppermint water, increasing the dose to five grains in the 24 hours. If given hypodermically, the extract is diluted with distilled water, and one cubic centimetre is injected not oftener than once a week. Spirak has collected 61 cases treated by 14 different surgeons in this way; of these 33 showed improvement and 27 did not. Great benefit follows the exhibition of large and increasing doses of morphia in hopeless cases. The drug should be pushed without any scruple, and it is quite immaterial how large an amount is taken at the end; it is quite common to give several grains of morphia each day.

As a result of this review of the different remedies which have been recommended we may, I think, arrive at the following conclusions:—

1. That in cases of inoperable sarcoma, more especially the spindle-cell variety, the patient should have the option of Coley's fluid given to him, since a certain number of cases have been cured.
2. That in cases of inoperable cancer of the breast in women of about 40 years of age in whom the menopause has not occurred the operation of oöphorectomy should be proposed, and this treatment may be combined with thyroid feeding.
3. That in cases of inoperable rodent ulcer and in the superficial malignant ulceration in other parts the Roentgen rays give a good hope of improvement.
4. That in cases where these other methods are declined or are inapplicable the internal administration of celandine is worthy of trial, and when the case appears quite hopeless morphia should be pushed without hesitation.
5. Finally, I would suggest that before trying any of these remedies the risk should be fully pointed out to the patient, that the faint hope that most of them afford should not be magnified, and that the discomfort of treatment should be fully discussed; in fact, the surgeon should not do more than offer the treatment and leave the person to accept or receive it.

In conclusion, I should like to express my thanks to my friend Mr. L. A. Bidwell for the able assistance he has given me in investigating this subject. I have also to express the sense of loss which the society has suffered in the removal by death of Dr. J. L. W. Thudichum. Dr. Thudichum was one of our earliest Presidents, and had always taken the very deepest interest in the society's welfare. His geniality and consideration for others endeared him to everyone who knew him, and his enthusiasm and deep store of knowledge made him respected by all.

**PREVENTION OF TUBERCULOSIS.**—At the meeting of the Exeter City Council held on Oct. 2nd it was decided to invite the medical profession of Exeter to notify all cases of pulmonary tuberculosis under treatment by them for one year and that the usual fees should be paid as for cases under the Infectious Diseases Notification Act. It was further determined that the sanitary inspector should visit all such cases and should offer his services for disinfection, &c.

# RECENT DISCOVERIES IN CENTRAL AMERICA PROVING THE PRE-COLUMBIAN EXISTENCE OF SYPHILIS IN THE NEW WORLD.

By THOMAS GANN, M.R.C.S. ENG., L.R.C.P. LOND., J.P.,  
DISTRICT SURGEON, COMOZAL, BRITISH HONDURAS.

SINCE the first recognition of the various symptoms of syphilis as phases of a single specific disorder which took place in the closing years of the fifteenth century two points in its history have provoked no small amount of controversy, alike amongst physicians and antiquaries; firstly, did syphilis exist in America before the discovery of that continent by Christobal Colon? and, secondly, was syphilis introduced from the New to the Old World?

I propose in this paper, after giving a short account of the early history of syphilis and the various causes supposed to have given rise to it, to describe the contents of an ancient Indian mound opened by me a short time ago in Honduras which supply circumstantial evidence so strong as almost to amount to proof positive of the pre-Columbian existence of syphilis in America, and this point once proved the probabilities are, it must be apparent, strongly in favour of the disease having been first introduced into the Old World from the New. That various forms of venereal disease were prevalent in the East, especially in China and India, centuries before the discovery of America is a fact not to be denied, but the descriptions handed down to us are so vague, fragmentary, and disconnected that it is impossible to recognise from them the exact nature of the disease. On its first recognition as a specific disease the opinions of contemporary physicians as to its origin were varied and marvellous; thus, Corradino Gillini and Gaspare Torella, two of the first physicians of their day, believed that the disease arose from the near conjunctions of the sun with Jupiter, Saturn, and Mercury, in the sign of Libra, which took place in the year 1483. Nicolaus Leoniceus, in his "Opus de Morbo Gallico," attributes it to the abundant rainfall in Italy about the time of its first appearance. Manardi, a professor of the University of Ferrara, attributes it to "the impure commerce of a Valentian gentleman who was leprous with a prostitute." Gab. Fallopio, a Modenese physician, puts it down to the poisoning of the well-water by the Spaniards in the war of Naples, which water being drunk by the French gave rise to syphilis. Andrea Cesalpina, physician to Clement VIII., relates that the Spaniards in the same war, escaping from Somma, which was besieged, left behind them a great number of jars of Greek wine mixed with the blood of the sick of San Lazaro, which being discovered and drunk by the French produced syphilis in their army. Leonardo Fioravanti, a Bolognese physician, in his "Capricci Medicinali," asserts that in the year 1456 both the French army and that of Alfonso, king of Naples, being short of provisions were supplied by the sutlers with human flesh dressed in such a manner as to resemble that of the tunny fish, upon eating which they were afflicted with syphilis. Vatablo Peneda and other authors ascribe an even more ancient origin to the disease, for they assert that it is none other than that from which the patriarch Job suffered; indeed, so widely did this view gain credence that for a considerable period after its first appearance in Italy it was generally known in that country as "Job's evil," though in what manner it had been transmitted from the patriarch's time to the fifteenth century none of these ingenious authors attempt to show.

The first authentic account which we have of an undoubted outbreak of syphilis in Europe, during the year 1494, tallies exactly with the return of Christobal Colon from his first voyage to the Indies, which took place in March of the previous year. Moreover, Ruy Diaz de Isla, a physician of Seville, affirms that several of Colon's men suffered on board ship from this disease, which they had contracted in Hispaniola, and that on their landing in Barcelona, where the court was then held, they spread the contagion, so that this city was the first affected, the epidemic becoming so serious that "prayers, fastings, and almsgivings were appointed to appease the anger of God." Oviedo affirms that the syphilis which was prevalent amongst the soldiers

of the great Captain Gonzale de Cordova, in his campaign against Louis XII., had been introduced by some of the members of Colon's company who formed part of the army, the disease having been first introduced by D. P. Margarit, one of the Spaniards who returned with Colon in 1496 from his second voyage, and by him communicated to some prostitutes, through whom it rapidly spread.

Astruc, in his "De Morbis Venereis," vol. ii., Venice edition, upholds the American origin of syphilis. Speaking of the island of Hispaniola, he says: "Multis ergo et gravissimis morbis indigenae insulae Haiti affici olim debuerunt, ubi nemo menstruatibus mulieribus se continebat; ubi viri libidine impotentes in venerem obvium belluarum ritu agebantur; ubi mulieres impudentissimae erant, viros promiscue admittebant ut testatur Consalvus de Oviedo, Hist. Ind., lib. v., cap. 3, immo eosdem et plures impudentius provocabant menstruationis tempore cum tunc incalcescente utero libidine magis in-anerent pecudum more. Quid igitur mirum, varia, heterogenea, acria multorum virorum semina una confusa, cum acerrimo et virulento menstruo sanguine mixta intra uterum aestuantem et olidum spurcissimarum mulierum coarcta, mora, heterogenitate, calore loci brevi computruisse, ac prima morbi veneri semina constituisse, quae in alios, si qui forte continentiores erant, dimanavere." Astruc, though an authority upon the place of origin of the disease, can hardly be looked upon as such in regard to its causation and pathology. He considers the venereal poison to be due "to the wheyish part of the lymph assuming a singular thickness, and acrimony, due to an acid salt, corrosive and of a fixed nature."

Nicholas Monardes, a physician of Seville and a contemporary of Diaz, says: "During the year 1493, in the war of Naples, between the Catholic and the French kings, Columbus arrived after his first discovery of the island of Hispaniola, and brought with him from that island a multitude of Indians, men and women, whom he carried to Naples, where the Catholic king then was, after the war was over. And as there was peace between the two kings and the armies communicated together, when Columbus came there with his Indian men and women the Spaniards began to have commerce with the Indian women, and the Indians with the Spanish women, and in that manner the Indian men and women infected the Spanish army, the Italians, and the Germans."

Las Casas, "the Bishop of the Indians," who, though a Spaniard, was violently prejudiced in favour of the Indians, admits that they readily acknowledged the presence of syphilis amongst them long before the coming of Europeans. Dr. Gustavus Beühl of Cincinnati, Ohio, who has made considerable research into the subject, shows from the writings of the early Spanish historians that the disease was not only well known amongst the native tribes, but that amongst the Mexicans its treatment was far better understood than it was in Europe for many years after its first introduction, and that those who died from this disease were not (as was customary) cremated, a fact the importance of which will appear later. The Maya language, which is almost universally spoken by the Indians of Yucatan, Honduras, and parts of Guatemala, and Mexico, has a special name for syphilis, and not one borrowed from the Spanish, or coined either from a fancied resemblance to the sound of the Spanish name or some prominent characteristic of the thing named, as is the case with most of the numberless new objects introduced at the conquest. Dr. Hyde, in an article entitled, "Pre-Columbian Syphilis in America," published in the *International Journal of Medical Sciences* for August, 1891, strongly upholds the pre-Columbian existence of syphilis amongst the American aborigines. In this article are described and figured bones taken from ancient Indian sepulchres, many of which exhibit undoubted syphilitic lesions. Magellan asserts that it was a common disease amongst the inhabitants of Timor, an island in the Moluccan Archipelago, at the time of his visit. Clavigero, in his "History of Mexico," vol. ii., Dissertation 9, attempts to prove that the disease did not originate, and could not possibly have originated, in America, but his chief reason for upholding this view appears to be that his *bête noire*, M. de Paw, holds a contrary one. He affirms in support of his opinion that the disease, being a newly-introduced one amongst the aborigines of America, was on that account far milder and less malignant than amongst Europeans, but we now know that, on the contrary, all diseases newly introduced from Europe to America, such as small-pox, measles, &c., have proved

terribly fatal to the aborigines who almost invariably suffer from a highly malignant form rarely seen in the Old World where through centuries of transmission they have become more and more modified in form and less malignant. The fact, therefore, that the Indians were and are less liable to the disease than Europeans and suffered from a milder form would rather go to prove that the disease had been common amongst them for centuries.

The mound to which I alluded at the commencement of these notes was situated in the northern district of the Colony of British Honduras, near the village of San Andres. It was nearly circular at the base, conical in shape, 18 feet high by about 90 feet in circumference, and built throughout of large blocks of limestone, the interstices between which were filled in with limestone dust and earth, forming together a sort of mortar which made the whole structure nearly as solid as masonry. An excavation was commenced near the centre of the mound and at a depth of about two feet below the surface a large circular disc of roughly-hewn limestone was brought to light. On lifting this it was found to cover a well-like cavity three feet in diameter by about five feet deep. At the bottom of the hole lay a roughly made, circular earthenware pot, 18 inches in diameter, covered by a lid. Within this pot, together with a number of other objects, were found two rudely-fashioned earthenware figures, one of which is shown in the illustration. A third figure was also



Clay figures found in a Maya tomb.

found, which was precisely similar in every respect to those depicted; this has been purchased by the British Museum, where it may now be seen. Each of these little clay figures is about four and a half inches in height, and represents an individual, who, from his head-dress (not unlike our bishop's mitre) is probably a Maya priest seated on a low four-legged stool. The genital organs are in all three cases out of all proportion to the magnitude of the figures, probably with the idea of drawing special attention to them. The penis, which is represented as being nearly as large as the leg below the knee, is grasped by the glans, in one case with the left and in the other with the right hand, whilst the other hand holds a long pointed implement, with which it is evident that some operation is either about to be, or has been, performed on that organ, probably the latter, as upon the upper surface of the glans, which is enormously enlarged and flattened from above downwards, several scarifications are seen. That these earthenware figures were manufactured by the Mayas before the coming of Europeans is abundantly clear from the fact that they wear the huge circular earrings, and one of them the circular lip ornaments of ancient times; and also, as before stated, that they wear the priestly head-dress of the Mayas. Moreover, with them were found several clay figures of

alligators, which amongst the Mexicans were symbolical of Death the devourer of all, and in this connexion were frequently buried with the dead in pre-Christian days. The figures when first discovered were exceedingly brittle and it was found impossible to remove them from the pot without breakage, as they had probably been only sun-dried; after exposure to the air and sun, however, for a few days they gradually hardened. All the clay objects found in this pot were painted in various devices with bright colours, chiefly red, blue, yellow, and black; the colours had, however, from centuries of exposure to the damp become considerably dulled and defaced. The only unpainted object of clay found in the jar was a natural-sized model of the human penis in a state of semi-erection. This is an exceedingly accurate model and differs from all the other clay objects in that it has been fired instead of merely sun-dried, and is on that account much harder. Upon the upper surface of the glans penis are three longitudinal incisions extending almost from base to apex and evidently made with a sharp-pointed implement whilst the clay was still soft. Together with these clay figures a number of perforated beads of jade and some dark red stone, all nicely polished, were found; also the tooth of a large alligator, perforated at its base, evidently for suspension with the beads. At a distance of about six feet to the north of the centre of the mound and at a depth of three feet below the surface was discovered a small square stone cyst or chamber, measuring 18 inches in every direction, and built of roughly squared blocks of limestone; within this were found most of the bones of a male of medium height and of fair muscular development. The bones were exceedingly friable, many of them, indeed, having disappeared entirely; they showed no signs of partial cremation, and with the exception of the tibiae were in no way abnormal. The upper articular surface of the right tibia had disappeared. The shaft instead of being triangular was rounded in section, the prominent angles at the front and sides being obliterated; it was slightly bowed, with the convexity anteriorly, and was a good deal enlarged, especially in its upper two-thirds, which were composed chiefly of friable, spongy, cancellous tissue which rendered the bone much lighter than it appeared. The surface was exceedingly rough, especially in the upper part of the bone, being covered with a number of small nodular outgrowths, between which were small pits or depressions. The bone was not examined microscopically. Of the left tibia only small fragments remained, but as far as could be judged from these a change somewhat similar to that undergone by the right bone had also taken place here, though not to such a marked extent. It was impossible to identify the fibulae, as only small portions of bone corresponding to them in circumference were to be found, the articular extremities of which were absent. I have opened nearly 100 ancient mounds in Central America, a large number of which have proved, from the presence of bones within them, to have been at least partially sepulchral in origin, but this is the one solitary instance in which the interment took place within a stone chamber without any previous attempt at cremation. The most usual method of disposing of the dead appears to have been, first, to cremate, or partially to cremate, the body (usually the latter), and then to collect the ashes and fragments of bone in an earthen jar, which was buried in a mound together with a number of the possessions of the deceased, such as spear, arrow, and axe heads, obsidian knives, skin rubbers, beads, and other ornaments, &c., and in the case of children, toys of various kinds. Occasionally, though very rarely, bones are found in an urn which show no traces of cremation, in which case the interment must have been secondary, the bones being collected from the first place of burial and re-interred within the mound in which they were found. The reason for this was probably that the individual either died or was slain in battle at a distance from his home, and it was either impossible or inconvenient to remove the corpse at the time. In the present instance it is evident that the bones had been collected after the flesh had either been removed or decayed away from them, as it would have been impossible to bury the corpse of a full-grown man within the small cyst in which the bones were found.

The foregoing facts taken together form, I think, a chain of evidence in proof of the individual who was buried in this mound having died from syphilis which is almost irresistible.

To recapitulate: 1. The clay figures, indicating that the persons whom they were meant to represent suffered from

some disease of the penis, confined apparently to the glans, a supposition which the life-sized penis tends to confirm. It is, of course, conceivable that as these figures were dressed as priests they may have been performing some ritual act of self-mutilation, a common occurrence, as we know from contemporary writers, amongst the Maya priests, but these acts were, as far as is known, confined to cutting and slashing the limbs and drawing twigs and small ropes interwoven with thorns, through a recently-made slit in the tongue, no author having mentioned mutilation of the penis. 2. The condition of the tibiae, which may, of course, have been due to caries or other morbid changes unconnected with syphilis; but when we remember that both bones were affected, that the tibiae are favourite sites for syphilitic morbid changes, and that the owner had evidently been afflicted with some disease of the glans penis, from which he presumably died, the evidence in favour of syphilis is overwhelming. 3. The peculiar and unique method of burial. We know from the accounts handed down by Sahagun, Torquemada, and other Spanish historians that amongst the aboriginal tribes persons who died from syphilis were not cremated (as was customary), but had a special mode of burial accorded them, and here, I think, we have it before us.

Corozal, British Honduras.

## A REMARKABLE CASE OF A FOREIGN BODY IMPACTED IN THE RECTUM.

WITH REMARKS.

By A. MARMADUKE SHEILD, M.B. CANTAB.,  
F.R.C.S. ENG.,

SURGEON TO ST. GEORGE'S HOSPITAL.

A THIN, spare, grey-haired man, aged 60 years, was admitted into St. George's Hospital in July, 1901. Four days prior to admission he had forced a gallipot up the rectum. He had passed some loose evacuations since and there was no great pain or difficulty in micturition. Strenuous attempts had been made by the patient to remove the pot with the fire-irons and some pieces had been broken off, with the result that large, irregular, sharp, jagged projections of earthenware presented downwards towards the anus, burying themselves in mucous membrane and seriously increasing the difficulty of extraction.

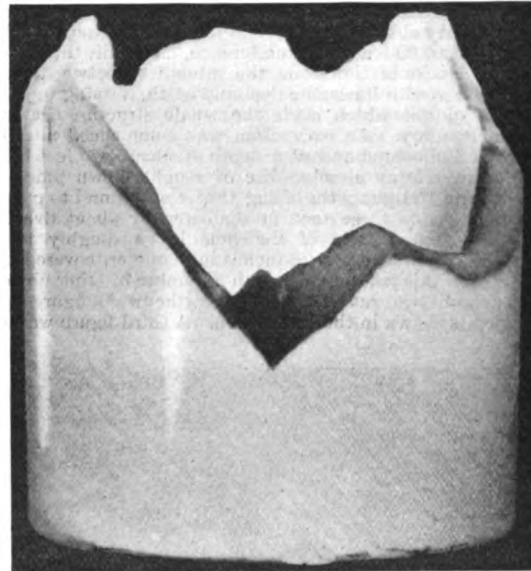
An anæsthetic was administered and the broken ends of the gallipot could just be felt by the index finger, but they were embedded in swollen and prolapsed mucous membrane. Knowing the perilous nature of these cases and the extreme difficulty experienced by others in similar circumstances I made no serious attempt at extraction until I had divided the bowel posteriorly. The incision was very free, down to the coccyx behind, and the bistoury was entered above, close to the foreign body. A short-bladed pair of midwifery forceps were next employed and I endeavoured as far as possible to engage the most dangerous jagged projections in the blades of the forceps. With careful traction and "swaying" movements the mass passed into the large wound whence it was easily extracted. Its extraordinary size and form are well seen in the accompanying illustration from a photograph kindly taken by my late dresser Mr. J. W. Seccombe. I united the great posterior wound with deep sutures, but these had to be removed soon, for the parts became very septic. The wound was lightly plugged as in a deep fistula operation and a warm boric hip-bath was constantly employed. Thanks to the care taken of the case by the nurses and Mr. W. F. Fedden (the house surgeon) the patient made a good recovery, which was interrupted only by a slight pleuritic attack. The wound is now not quite healed, but he is recovering power over his motions gradually.

No motive could be assigned for this rash and foolish act. The patient's wife stated that he was a morose man, unsuccessful in life, but that she had never noticed symptoms of insanity. She believed that he had occasionally inserted potatoes into the bowel and she had taxed him with this act.

Perusal of the cases presently to be related will show that these curious accidents are by no means devoid of great peril. The risk of lacerating the mucous membrane is very great and the impaction seems peculiarly tight. Indeed, in

the St. Bartholomew's Hospital case spoken of below the abdomen had to be opened and pressure brought to bear upon the foreign body from above before extraction could be effected by traction.

The rarity of foreign bodies being introduced in this manner may be gauged from the few instances which I am able to relate in this communication. A case was related in 1896 by Mr. J. Good,<sup>1</sup> then of Leominster, which occurred in a man,



Jam pot, exact size, extracted from the rectum.

aged 74 years, who had suffered from diarrhoea with passage of blood and mucus. Examination detected a foreign body and then the patient confessed to having introduced a "Worcester sauce bottle." Mr. Good removed the bottle by passing a gum catheter round it and making traction. The long neck of the bottle appeared to be tilted forward and had caused retention of urine, which was relieved by its removal. I have addressed queries to the custodians of all the principal hospital museums in Great Britain and Ireland with little result. The great collection in Edinburgh, for instance, contains only specimens which have descended into the lower bowel from above. Thus Series 26 contains one instance of intestinal concretions, one of a large gall-stone, two of doubtful substances, and one of a nail which had been swallowed. The Hunterian Museum in London contains no such specimens, though it exhibits such curiosities as a swallowed table-spoon which reached the cæcum and an egg-cup impacted in the ileum. In conversation, however, I have heard of cases similar to the one I relate which have never been reported, and the treatment is so difficult and dangerous that all such accidents, however rare, are worthy of being related.

Mr. W. E. S. Burnett of Mottram furnished to Mr. Harrison Cripps the particulars of an instance of impacted jam-pot, and I suspect that this is the case referred to by the other authors. Here a tall and robust man of temperate habits and sound mind forced a jam-pot up his anus. Afterwards finding that it obstructed his motions he knocked out the bottom with a poker. The prolapsed intestine had passed through the opening in the bottom of the pot, which was uppermost, and was swollen and pulpy. In one and a half hours Mr. Burnett succeeded in removing the pot by crushing it with a craniotomy forceps and syringing. The patient would not take an anæsthetic.<sup>2</sup>

The majority of these curious cases, however, seem to have originated in a desire to treat some rectal complaint, imaginary or real, as chronic constipation or worms. Authors speak of the impaction of an eau de Cologne bottle and of a jam-pot two and three-quarters of an inch in diameter which remained in the rectum for six days.<sup>3</sup> This last

<sup>1</sup> Brit. Med. Jour., Nov. 7th, 1896, p. 1427.

<sup>2</sup> Cripps: Diseases of the Rectum, p. 284.

<sup>3</sup> Cooper and Edwards: Diseases of the Rectum, p. 304.

instance is probably the same as that quoted by Mr. Cripps. One of the earliest recorded cases in this country is related by a Mr. Thomas, who in 1812 introduced his whole hand into the rectum and removed a piece of cane nine inches long. The patient had used this habitually for the relief of constipation.<sup>4</sup> Thus this surgeon may be looked upon as the pioneer of rectal exploration by means of the hand.

Mr. Laurence Cripps has kindly copied out for me the following interesting accounts of the specimens in the Museum of St. Bartholomew's Hospital:—

"3391 W., St. Bartholomew's Hospital Museum.—A white glazed porcelain jar, measuring three and a half inches in length and nearly two inches in diameter, which was removed by operation from the rectum. The jar is similar to those used for the preservation of Liebig's extract of beef. The patient was a man, aged 35 years, who placed a small potato in the orifice of the jar and then sat on it to allay, as he said, intense itching at the anus. The jar slipped into the rectum. He came to the hospital and attempts were made with midwifery and other forceps for over two hours under an anæsthetic to remove the jar, but unsuccessfully. The next day he was again placed under an anæsthetic and the sphincter ani was divided back to, and on either side of, the coccyx. It was not, however, until the abdomen had been opened and the jar (with the potato still impacted) had been pressed down from within by the hand of an assistant that it could be extracted. So much injury had occurred to the rectum and the surrounding tissues that peritonitis set in and proved fatal."

"3391 G., St. Bartholomew's Hospital Museum.—Two masses of silver ore removed from the rectum of men working in the silver mines of Chili. The larger mass weighs 30 ounces and measures five and a half inches in its longest diameter and eight and a half inches in circumference; the smaller one weighs eight ounces. A gentleman living in Chili who sent the specimens to England writes: 'In the silver mines here the men on coming out of the mine are stripped naked and well searched. Among other habits some of them accustom themselves to pushing pieces of ore into the rectum, leaving a short piece of string to pull it out by, and some of these miners are by this means able to steal during the year a large amount of silver ore. I was present the other day when the men were leaving the mine and saw the searching. The two specimens I send were taken from the rectum of two of the miners. I have seen even larger pieces removed than these.'" The enormous size of the silver ore would indicate that the thief had long used his rectum for purposes of concealment.

In reference to this latter case it may be remarked that the Kaffirs in the Kimberley Mines secrete diamonds in the same way. A well-known resident in South Africa informed me that it was customary to give the natives powerful purgatives before they leave the "compound" after their term of work is concluded. By this means diamonds of value are not infrequently recovered.

The only other case of the kind which, so far as I know, has occurred at St. George's Hospital is as follows. It well illustrates the inevitable danger of laceration. In March, 1890, a man, aged 45 years, was admitted into St. George's Hospital with a foreign body in the rectum. He had long suffered from prolapse and to relieve this he forced up the bowel a glass pomade-pot. He was admitted very ill and the pot could just be felt with the index finger. Prolonged attempts were made to remove it, but without avail, by means of hooks. The sphincter was finally divided and the pot was extracted with a midwifery forceps. The patient died from peritonitis. A small laceration was found anteriorly about three inches up the bowel which opened the peritoneum. This had obviously been made by one of the hooks unavailingly used in extraction.

Pages might be written regarding foreign substances lodging in the rectum which have been swallowed and have come down from above. Intestinal concretions, fish or other bones, tooth-plates, coins, pins, and needles are familiar examples. Some of these have been swallowed by accident, others by design, by jugglers, children, hysterical persons, or lunatics. It is a cardinal rule that when a person of unsound intellect exhibits symptoms of rectal irritation, as the passage of blood and mucus with "spurious" diarrhoea, to suspect that a foreign body may have been introduced, by the mouth or otherwise. Probably the experience of these engaged in lunacy practice could

supplement this. Again, a class of foreign bodies in the rectum may be found which have been introduced by pure accident. Such may result from breaking an enema apparatus, or a fall on the buttocks on broken wood or glass or china. With all such cases as these, which are in the knowledge of all practitioners of experience, this short paper does not profess to deal. Should any surgeon meet with one of these curious and embarrassing accidents, the experience of this paper will not be devoid of utility to him. The division of the structures posteriorly seems an essential preliminary to any attempts at extraction. I should not hesitate to remove part of the osseous structures if needful. Short midwifery forceps are probably safer instruments for extraction than any hooks or weapons which might inflict laceration.

Cavendish-place, W.

## A CASE OF LAPAROTOMY

FOR MULTIPLE SEPTIC ABSCESSSES AND INTESTINAL ADHESIONS POSSIBLY DUE TO SALPINGITIS, CAUSING OBSTRUCTION, FOLLOWED BY A SECOND OPERATION NINE DAYS LATER FOR ACUTE OBSTRUCTION DUE TO A BAND AND VOLVULUS; RECOVERY.

By A. ERNEST MAYLARD, M.B., B.S. LOND.,  
SURGEON TO THE VICTORIA INFIRMARY, GLASGOW.

I AM tempted to record this case not only because of the triple cause which had led to acute intestinal obstruction but also as an illustration of what surgery can do, or better, perhaps, what nature can endure and repair. As an example of intra-abdominal tolerance of surgical manipulations it exceeds anything that has hitherto come within my experience, and shows that nature sometimes prefers even the most radical surgical intervention to the baneful influences of certain pathological conditions.

The case was that of a young woman, aged 17 years, whom I was asked to see in consultation with Dr. Archibald Brown of Mount Florida on April 19th, 1901. The symptoms at this date were not particularly clear, although sufficiently grave. They suggested subacute obstruction dependent upon some inflammatory condition, although upon what the latter depended it was impossible to say. As it was considered that some slight improvement had taken place since the onset of the illness a few days previously, and that, according to the parents' statement, their daughter had recovered from a somewhat similar, though not so severe, attack before, merely palliative measures were suggested. I was not asked to see the patient again until May 3rd, that is to say, a fortnight after my first visit, when I was informed that while improvement had seemed to take place for a time she had now become very ill again. When seen on this second visit she was extremely ill with evident symptoms of acute intestinal obstruction and a temperature of 102° F. I had her removed to a private room in the Victoria Infirmary as soon as possible and made all arrangements for the performance of the operation on her arrival. As pain had been mostly felt in the left iliac region and there were both tenderness and resistance over the same area, I made my incision through the parietes at this part. On opening the peritoneal cavity a stream of fetid pus escaped. The intestines were glued together, and as they were detached localised collections of extremely offensive pus were liberated. The left appendages were found in one of these pockets, the ovary being cystic and the tube thickened and distended. In detaching one portion of bowel the serous coat was torn; this was carefully stitched with a continuous Lembert suture. All pus and inflammatory exudate were removed as exposed by means of small swabs of gauze. As the patient's condition became alarming no further attempt was made to remove the appendages, but the various septic areas were plugged with iodoform gauze and the parietal wound was rapidly closed as much as the "stuffing" would allow.

Although greatly collapsed after the operation the patient soon rallied and in the evening both flatus and fæces were passed per rectum. For eight days progress continued uninterrupted, except that a bad bed sore formed over the sacrum, the result of the extreme degree of emaciation to which she had been reduced. On May 12th, nine days after the

operation, I found her on my morning visit suffering from evident symptoms of acute intestinal obstruction and concluded the cause to be some kinking or binding down of the bowel, the result of the adhesions about the seat of the original operation. The patient was again removed to the operating-theatre and an incision was made through the parietes in the median line below the umbilicus. As my object was not only to liberate the supposed involved loops of intestine but to remove the left appendages, I preferred to do this through a fresh incision in the median line rather than to re-open the existing septic channel. My first encounter was with another localised foetid abscess which was encircled and retained by loops of matted intestine; this, as in the previous one, was swabbed out. At the same time every precaution was taken to prevent any septic infection of the upper part of the abdominal cavity. The matted intestines were again disengaged and withdrawn from the abdomen so as to ensure of no involved loop escaping observation. Search was then made for the left ovary and tube, but these were found so inseparably matted to the anterior wall of the pelvis, and free from any neighbouring septic material, that it was decided not to prolong the operation by any attempt at their removal. When it was supposed that the operation was completed so far as the intra-abdominal part was concerned, it was accidentally discovered that a distended and congested loop of small intestine presented at the upper part of the parietal wound. The parietal incision was extended upwards sufficiently to expose the bowel above, when it was found that a tense fibrous band extended transversely across the gut, completely occluding it. The band was divided but the bowel failed to empty itself onwards; hence an incision was made into it and its contents were allowed to escape, or rather were made to escape, by passing the distended gut between the fingers. Another difficulty now presented itself. It was found impossible to empty even by this manipulative process a long coil of small intestine lying higher up in the abdomen. On searching for the reason it was soon found that this loop of intestine had formed a complete twist upon its mesentery. When untwisted the remaining contents of the distended gut were easily squeezed out through the enterotomy wound. The patient by this time was almost *in extremis*. It took, however, but a few minutes longer to close the enterotomy wound and to return the collapsed bowel. During the intestinal manipulation I came upon the appendix which while containing a faecal concretion was entirely free from any inflammatory complications. It was, however, accidentally removed, for in our excusable hurry, it suddenly gave way near its attachment to the caecum, while being held up. Time did not permit of our performing the toilet connected with an appendicectomy, so reliance was had upon the stuffing which was freely employed here as in other septic and doubtful areas of the abdomen. The patient was got back to bed where she lay for some time in a profoundly collapsed condition. With, however, the unremitting and constant attention of my assistants, Dr. David Russell and Dr. John Duncan, and my nurses, the patient not only rallied but made an almost uninterrupted recovery. I say "almost" because for some time there was a faecal fistula at the lower part of the median incision. I believe this was the result of the unintentional and uncompleted appendicectomy. It, however, eventually closed.

In reviewing the case from its pathological aspects I must own to difficulties in rightly interpreting the cause, or causes, of what I found. I have ventured to suggest salpingitis as the origin of the mischief first dealt with and yet there was nothing in the history of the case to allow of the slightest suspicion as regards a vaginal or uterine discharge of any kind. The tube was certainly thickened and apparently distended; but might not this have been the result of external inflammatory influences? Is it possible that a tuberculous lesion could have explained all the conditions found? The intestine showed no evidences whatever of ulceration so far as could be judged from external appearances. But I have no intention of pursuing further this aspect of the question. I have recorded the case merely as one which seemed to me to possess, from a practical surgical aspect, several points of interest. Not the least of these were those connected with the natural power of the peritoneum to resist the severe and extensive mechanical interference when it failed, or was failing, to combat successfully grave and fatal pathological processes.

Glasgow

## MUCIN IN DESICCATION, IRRITATION, AND ULCERATION OF MUOUS MEMBRANES.

By W. STUART-LOW, F.R.C.S. ENG..

ASSISTANT REGISTRAR CENTRAL THROAT AND EAR HOSPITAL.

LAST year I published a paper dealing with the use of mucin in gastric ulcer, but then I could only speak on the subject tentatively, because I had employed mucin only in a limited number of cases, although very successfully. During the last 12 months, however, the more extensive use of this natural remedy has more than ever convinced me, as also others who have made application of it, that in suitable cases it is a most valuable therapeutic agent and that it will afford relief and sometimes cure when all other treatments fail. To better understand the premises on which the arguments in favour of the use of mucin are based it is necessary to refer to certain anatomical and physiological points. The interior of the nose and that of its accessory cavities are lined by mucous membrane and the provision for the secretion of mucus in the inner lining is very complete and extensive. In the olfactory region—all above the middle of the middle turbinated bone—there are comparatively few muciparous cells or glands. In the regio respiratoria—all below the middle of the middle turbinated bone—the contrast with this anatomical condition is very marked and the special provision that is here made for the secretion of mucus shows how important the presence of this secretion is and what a large quantity must constantly be poured out even in the normal nose. In the sphenoidal sinus there are about 20 muciparous glands. The lining membrane of the accessory cavities is a thin one with a ciliated surface, a thin basement membrane, and sub-mucous tissue, and the glands are mostly aquiparous. There are some mixed glands in the antrum maxillare, but in the ethmoidal cells and frontal sinuses the secretion is watery. The fact that the lower or respiratory tract is much the wider when compared with the upper or olfactory tract which is narrow and slit-like, thus affording a vastly larger surface for secretion, is also noteworthy. The most closely packed gland surface in the body is the stomach surface, where there are the open mouths of glands to the number of 100 to the square centimetre; on the nasal septum gland openings are similarly exceedingly abundant. The gland openings, mostly muciparous, are found numbering as many as 70 to the square centimetre and on the inferior turbinated bones also these glands are very numerous, being only slightly less thickly placed than on the septum. This is also the condition conspicuously seen on the mucous lining of the lower half of the middle turbinated bones and also in the posterior part of the outer wall of the nasal cavity.

The next point of importance, anatomically, as defining the direction of the flow and ultimate destiny of all the mucous discharges in the normal nose, is the slanting position of the three turbinated bones and therefore of the three meatuses. These three bones and cavities all lie obliquely from before backwards and above downwards, and even the floor of the nose in the erect position of the head is inclined towards the pharynx although it is the least oblique of the meatal floors. The result of this structural arrangement is that the secretions slide backwards into the pharynx preparatory to passage down the oesophagus into the stomach. The sphenoidal sinus secretion in dependent positions of the head must also pass into the pharynx from the roof. The more watery discharges from the upper regions and accessory cavities will tend to flush mildly the more viscid secretions lower down on into the pharynx. The only secretion passing into the nose that might have a chance of escaping passage back into the pharynx is that from the lacrymal apparatus which is more or less constantly flowing from the anterior position at which it enters; but the oblique inclination backwards of the nasal duct, the valvular fold at its abutting point, and the curved formation of the anterior part of the inferior turbinated bone, all tend to direct the flow pharynx-wards.

In the pharynx there are small groups of muciparous glands on the lateral and posterior walls in its upper part;

there are also a considerable number on the pharyngeal surface of the uvula; but below the upper level of the mouth, where the epithelium changes its character from ciliated to stratified, there are very few. There are also very few mucous glands in the œsophagus until nearing the cardiac orifice, where there are a great many rather large ones, intended doubtless to supply mucus to afford protection against acid regurgitation from the stomach. This paucity of mucous glands below the middle of the pharynx is explained by the fact that the dependent secretions from above are meant to be swallowed and thus to lubricate and protect the lower half of the pharynx and the œsophagus. Besides the special glandular arrangement for the mucous secretion there is a large quantity supplied also from muciparous cells scattered throughout the nasal and upper pharyngeal regions, wherever the epithelium is of the columnar type, many of which cells exhibit the goblet condition. In the mouth most of the mucus is supplied by the sublingual glands. The sub-maxillary being a mixed gland supplies a smaller quantity. There are also groups of special mucous glands—viz., the buccal, labial, molar, and lingual. The use of the oral mucus is doubtless that of facilitating the preparation of the food for deglutition and the maintenance of the cavity in a fit and moist condition.

That there is a considerable secretion of mucus in the nasal cavity and upper pharynx the study of their anatomy leaves no doubt, and that this secretion is far more than is required for the purposes of lubrication or for its special function of keeping up the moisture of these parts by virtue of its hygroscopic properties cannot be questioned. I maintain that this abundant mucus is swallowed, is normally intended to be so swallowed, and that in this manner not only is the œsophagus continually protected and lubricated, but that the ultimate function of this deglutated nasal mucus is to assist in protecting the stomach, more especially the pyloric portion (to which it immediately gravitates), against attrition by lumpy food and irritation by the acid gastric juice. It also helps to act as a natural laxative.

The nearly vertical position of the stomach, especially in its cardiac part, necessitates the gravitation of the swallowed mucus to the pyloric end where it is most required on account of great mechanical strain thrown on this part and the irritation caused by the acid juices. The cardiac portion has only feeble contractile power compared with the part beyond the so-called prepyloric sphincter, in which the muscular power is very great indeed. This differentiation between the two parts of the stomach, both anatomical and functional, is not sufficiently taken into account when studying their respective liability to disease, more particularly irritation and ulceration. Immediately on passing through the cardiac opening the epithelium changes its character again from stratified to deep columnar, and what is a very striking fact will be noticed—that every cell on the gastric surface is an active mucous gland pouring out its secretion over the surface, thus saving the sensitive walls from irritation and digestion by the gastric juice. These surface cells also line the mouths and necks of the gastric glands.

The functional differences between the two parts of the stomach is carried out not only in their musculature but in the nature of the glandular secretion, the cardiac glands giving out acid and pepsin and the pyloric ones pepsin alone. The mucous membrane at the pyloric part is much thicker than at the cardiac part, and the surface cells extend a much greater way into the wider openings of the glands than at the cardiac end, the mouths of the glands being always plugged with mucus. There is also another histological distinction at the pyloric part, in that there is a special readiness on the part of the new cells, intercalated between the deeper parts of the surface cells, to take the place of the old ones as they become rubbed off or worn out—young cells being found growing rapidly in the deeper layers. This is always an indication of special functional activity—in this instance of the goblet cells on the surface being quickly replaced as they are so soon worn out in mucus formation, again emphasising the need of much mucus at this part.

In the small intestine, with a capacity three times that of the stomach and four times that of the large intestine, the surface epithelium has the distinctive features of a striated border, stamping this as the chief absorptive part of the intestinal tract, far exceeding in this capacity both the stomach and the large intestine. The other marked feature in the lining membrane of the small intestine is the

sparseness with which mucous cells are found. There are only a few goblet cells found scattered over the villi, a few in the glands of Lieberkühn, these Lieberkühn glands being interspersed like test-tubes in a stand between the villi; this is in great contrast with the large number of goblet cells seen in the Lieberkühn glands of the large intestine, where as many as 40 are commonly found in one gland. The mucus in this part of the canal—the small intestine—is an imported supply. From the stomach much is propelled onwards with the gushes of the chyme—from the pancreas in its very viscid secretions, and from the liver with its specially large supply in the bile, derived from tarrying in the gall-bladder and passage down the bile-ducts. The amount of mucus discharged into the small bowel, therefore, is very large—larger than in any other part of the bowel—but this is almost entirely derived from surrounding organs. That this is so, and that here the digestive processes are still carried on very intensely and actively, are important factors in their bearing on its pathology. The only other point I would like to emphasise about the anatomy of the small intestine is that the solitary glands and Peyer's patches, which are so liable to become the seats of ulceration, have only a single layer of protecting epithelium over them and that they are more liable to friction and irritation since they bulge up the surface somewhat and thus project into the lumen of the canal.

In the large intestine very great provision for mucus supply is met with, vast numbers of goblet cells being placed over the surface and in the glands of Lieberkühn throughout this tube. For lubricating and protecting purposes this is very essential, as the contents now become solid in consistency. I would here only further remark that while this is so in the large intestine—the vestigial part of it—the appendix has very few Lieberkühn glands and these are almost destitute of goblet cells. Mucin is the substance that gives the sliminess to mucus. It is found in many situations both in the cells of mucous glands and in goblet cells. It is also the chief constituent of the cementing material between cells—tissue mucin. There are probably several mucins. They are of a colloid nature, viscous, soluble in alkalies, but precipitable from such solutions by acetic acid. On boiling with dilute mineral acids they yield a substance which reduces Fehling's solution. Mucin is also found abundantly in such slimy animals as snails. It has been specially investigated in the jelly-like connective tissue of the vitreous humour, Wharton's jelly, and in tendons. By appropriate processes mucin is broken up into a carbohydrate called "animal gum" and a nucleo-proteid, and the unanimous opinion of physiologists is that mucin is not broken up in the digestive process, but that resisting them all it passes by the bowel unchanged. Some mucus may be broken up in the small intestine, however, and the great additional supply in the large intestine would support this supposition.

The solution of many of the pathological problems presented by the stomach which have perplexed the medical mind so long and so much is, I think, wrapped up in the solution of that other puzzling proposition. Why does the stomach not digest itself? which has hitherto never received a satisfactory answer from the physiologist. But what are gradual thinning of the surface epithelium of the stomach lining, multiple small erosions, either slight or to such a degree as to give rise to profuse hæmorrhage, ulcerations, few or many, superficial or deep, but the results of irritation first and then digestion and destruction by the potent acid gastric juice? This much is mostly agreed to be so by pathologists. But what preserves this superficial epithelium from solution if not the substance it secretes as mucinogen in the deeper parts of the cell body? This being rapidly changed into mucus which fills the outer part of the cell as a soft gluey plug resists gastric digestion and is poured, as a more or less thick layer, over the gastric surface. Any deficiency of this mucous coating must expose the deeper protoplasmic part of the cell-substance to the irritant and digestive action of the juice and also allow of its penetration into and between those cells, the prevention of which is very likely a further function of this mucus. A change has taken place in our views as to the functions of the stomach, inasmuch as it is not now considered to be a great absorbing organ, water even being mostly passed on to the small bowel, there to be rapidly taken up into the portal circulation. The principal action of the stomach consists in the completion of those processes of preparation for absorption begun in the mouth by the contents being churned and squeezed and triturated and by insatiation

and peptonisation being furthered, absorption being a subordinate function. That every cell on the stomach surface is a mucous gland is just what the organ's performances would lead us to anticipate—viz., absorptive duties much reduced in favour of mechanical work, when lubrication and protection from bruising by ill-masticated food and shielding from chemical irritation demand abundance of just such a substance as mucin. The stomach is said to resist self-digestion because its walls are living walls; and another reason assigned is that they are continuously being bathed in alkaline blood. But Bernard's experiments, in which he showed how the limb of a living frog even with its normal alkaline blood-supply was readily digested when projected through a gastric fistula into the stomach cavity of a dog, and that the ear of a rabbit when so introduced was digested (Pavy), clearly prove that living tissues are not thus resistant. It is singular that the epithelium of the pancreatic duct is not affected, although this juice is very active in an alkaline medium; but the explanation is probably the superabundance of viscid mucus in this secretion. Anything arresting the formation of mucus will lead to the digestion of the stomach walls. Thus the excised stomach of a recently-fed animal left in a warm chamber in a sufficient quantity of dilute hydrochloric acid will become completely digested (Waller's Physiology). An animal killed during digestion and examined a few hours later may be found with the stomach perforated by self-digestion and with more or less extensive destruction of the surrounding tissue (Waller).

It is interesting to notice in this relation that the margins of gastric fistulae in man are readily attacked by the gastric juice, as also are the margins of gastric ulcers. In persons dying after a full meal and the body being kept in a warm place not infrequently the posterior wall of the stomach is found digested and even the contents may escape. Fishes are frequently found after death with their stomachs partially destroyed. Ligation of the arteries of the stomach causes, according to Pavy, digestive softening of the gastric mucous membrane, and he thinks that this is brought about by the removal of the alkaline blood, but this has nothing to do with the explanation, for the frog's blood is also alkaline in Bernard's experiments just mentioned, and the cells that line the pancreatic ducts are preserved from the pancreatic juice which is intensely active in an alkaline medium. The true explanation is that ligation of the arteries arrests the secretion of mucus from the cells of the superficial epithelium of the stomach lining, while the already acid contents readily destroy the wall, and the great amount of mucus in the pancreatic duct shields it from the active secretion pouring over its surface. Stewart and Bernard are the only physiological authors who assign to mucus its proper place and role. In his "Manual of Physiology" Stewart says: "A certain amount of protection may be afforded to the walls of the stomach by the layer of mucus which covers the whole cavity, for mucin is not affected by peptic digestion, and a mucous secretion seems in some other cases to act as a protection to the walls of hollow viscera whose contents are such as would certainly be harmful to more delicate membranes—e.g., in the urinary bladder, large intestine, gall-bladders, &c." Bernard says: "The thick layer of mucus may also aid in protecting the stomach from the action of its own gastric juice."

After full consideration of the foregoing anatomical and physiological facts, and having noted that patients with irritable stomachs, painful digestion, and hæmatemesis (gastric erosions or gastric ulcers) suffered simultaneously in many instances from the accompanying ailments of either dry or atrophic rhinitis and pharyngitis, together with the prominence of the symptoms of a clear non-mucous hyperacid vomit, constant constipation of the bowels often with dry scybalous stools, amenorrhœa and chlorosis, I was induced to try the use of mucin in an endeavour to supply the obviously deficient mucus. In my position as assistant-registrar at the London Central Throat and Ear Hospital, examining a great many patients, I have been surprised to find how in almost all cases of dry nose and throat there is also complaint made of long-standing and intractable gastralgia and constipation of the bowels, and another fact that I have verified at the same large clinic is that the incidence of these affections as regards age and sex is much the same. It is remarkable that dry and atrophic rhinitis and pharyngitis and gastric erosions or gastric ulcer are most commonly seen in young females of the domestic servant or

indoor-labouring class between 17 and 30 years of age. There seems to be in such people and at such an age a special liability to desiccation of mucous membranes, beginning with lessened secretion and ending in more or less complete atrophy. This seems to be more often met with in the scrofulous, and is evidenced by dry nose and throat, these young women seldom using more than one handkerchief a week, while painful digestion, frequent vomiting after meals, constipation, amenorrhœa, and chlorosis are concomitant symptoms.

I will now give notes of a few of my cases treated with mucin.

CASE 1.—A woman residing in the country was sent to me that she might have special treatment, as all the ordinary remedies had proved futile. She had been under the care of Mr. Ray, late of Dulwich, on three occasions in the course of the five years for hæmatemesis, the last attack having been a very serious one, with much vomiting of blood and necessitating rest in bed and milk diet for one month. The diagnosis had been "gastric ulcer" and she had had painful digestion ever since the last illness. She was 34 years of age, very pale and emaciated, very weak and easily tired, and complained of want of strength, want of appetite, and pains after everything in the way of food—attacks of sickness and constipation. She had been very strictly dieted and practically starved, being afraid to eat. I found that the tongue was very clean and red and fissured and somewhat large and flabby-looking. The nose and throat were rather dry and the mucous membrane was thin and pale in appearance. She stated that she very seldom soiled a handkerchief. All her other organs were healthy. She had pain on pressure over the stomach and she stated that after taking food, even of a very light nature, she suffered great pain for some time and was often sick, the vomiting giving relief. I diagnosed the case as one of chronic gastric ulcer, the ulcer being most probably of considerable size and cicatrised over, with the edges liable to give way and to break down, thus accounting for the attacks of hæmorrhage. I prescribed tabloid mucin co. as prepared by Messrs. Burroughs, Wellcome, and Co., ordering three tabloid products just before food and three more just after food. The feeding was ordered to be carried out every three hours and to consist of soft food, especially Brand's essence of beef and thin cornflour made with milk. This was varied with calf's foot jelly, chicken and mutton jelly, and custards. There was no more vomiting and very soon the pain ceased, even after partaking of larger amounts of food at one time. In a week the patient was able to take a fairly good meal of chicken or fish, followed by custard or other light milk pudding. Her weight increased by eight pounds in six weeks. The number of tabloid products taken was gradually reduced from 24 per day to 16, which number was continued regularly for six weeks, and then as she was suffering no discomfort they were stopped as a regular thing and were taken only occasionally. With the help of a daily enema at first the bowels soon acted quite satisfactorily. When I last saw her she was quite well, although she had still to be careful of any indigestible article in her diet.

The following three cases were under the care of Dr. Hallam of Westminster and each made marked improvement under tabloid mucin co. These reports are from notes carefully kept by him.

CASE 2.—The patient was a girl, aged 18 years. She first sought medical attention on Jan. 19th, 1901, complaining of gastric pain after food and occasional vomiting. The ordinary medicines were prescribed, but at 2 A.M. on the following morning an urgent message was sent that she had vomited a chamberful of blood. Absolute rest was ordered for one week, and then she was allowed to get up, but she remained very weak, had no appetite, had much gastric pain, vomiting frequently after food, and was very constipated. She was now ordered two tabloid mucin co. products just before and two after each meal, the food to be taken every three hours. This treatment was kept up until the middle of April. Dr. Hallam says that "the pain and vomiting ceased very rapidly, and the bowels soon acted quite regularly," and that some time after he met the patient when she expressed herself as being in the best of health, having had no return of the symptoms, and stated that her bowels were now regular.

CASE 3.—The next case was that of a woman, 32 years of age, a thin, delicate-looking person, who complained of pain

soon after food, vomiting, and constipation. The tongue was clean and red. This woman had been quite incapacitated for two months and ordinary treatment had failed to relieve her. She was treated with tabloid mucin co., taking two tabloid products before and two after each meal. This was continued for a fortnight and the "bowels became regular and the pain and vomiting ceased and she was soon very greatly improved." This was evidently a case of irritable stomach or gastritis.

CASE 4.—The next case was that of a young lady who had had a great variety of treatment for acute gastric symptoms after partaking of food—gastric pain, sickness, nausea, and hæmatemesis. All the usual treatment had been gone through over a lengthened period but she had got no relief until put on tabloid mucin co. when she progressively improved.

Dr. H. Whittome of Camberwell used tabloid mucin co. in a case of "gastric ulcer" with good results. These are his notes: "The patient, a young unmarried woman, aged 28 years, came complaining of nausea, sickness, gastric pain aggravated by partaking of food, vomiting giving relief, and the passage of dark tarry stools. She had had only very temporary relief from soda, bismuth, hydrocyanic acid, and morphia and was therefore put on tabloid mucin co. These she took, two before and two after food, with cornflour, Brand's essence, and custards as diet every three hours; the pain and vomiting ceased and the bowels were moved twice daily. The tabloids were then reduced to half the number when improvement was still maintained, but the bowels only opened once daily. This patient took 250 tabloids in all. She kept for herself a very careful tabular record of the occurrence of pain, vomiting, colour of the motions, &c. A case of my own was very similar to this.

CASE 5.—A woman, aged 30 years, had long suffered from constipation and pain after food. She was a tall, thin, pale woman, with a clean red tongue and pale nasal mucous membrane and throat. I was asked to see her when she was suffering from a gastric attack with great pain, sickness, and vomiting tinged with blood, and the passage of tarry stools. I at first ordered absolute rest, ice to suck, a cotton-wool compress on the abdomen, Brand's essence of beef only for food, and tabloid mucin co., two tabloids every three hours. These had to be dissolved at first in a little warm lime water as she did not swallow them very well. She progressively improved and was convalescent in a week and with iron preparations and tabloid treatment occasionally has kept well ever since—now six months ago.

These are only a few cases that I have made a selection of, but they are typical of the others. I have had 30 instances in which mucin has had a most beneficial effect. Several patients have had to have a second course of tabloid treatment in from three to six months after the first, and some have had to have the treatment extended intermittently over a lengthened period, but in all my patients its success has been remarkably good.

The tabloid mucin co. consists of five grains each of mucin and sodium bicarbonate. I combine the mucin with sodium bicarbonate because mucin, as found in all secretions in the body, is always (as in the saliva) associated with an alkali and is sent into the stomach with alkalies, therefore, and is soluble in alkalies. If this tabloid compound is dissolved in a little water in a test-tube and kept at the temperature of the body a sticky, gluey adhesive liquid is formed. Alkalies, therefore, are essential to the full and proper action of mucin. I make use of mucin also for douching the dry nasal mucous membrane as well as for swabbing out the desiccated pharynx. For this purpose I have the same tabloid product combined with one grain of menthol. This tabloid product is dissolved by rubbing it up with an ounce of warm lime water and the solution is then used by means of a nose-boat or a nasal syringe to wash out the nose; this is equally effective half as strong and suits some sensitive people better.

Mucin is hygroscopic but its influence is not so violent or so irritating to mucous membranes as, for instance, glycerine is, because, according to a research I have had carried out at the Laboratory of Clinical Pathology, 62, Queen Anne-street, W., it has only about one-fifth of its absorbent power for water, 100 parts of mucin absorbing 3.8 parts of water in four hours, whereas 100 parts of glycerine absorbed 16.3 parts in the same time. Mucin is thus much more mild and soothing in its influence and therefore a more suitable moistening application to the nasal lining than glycerine, the effect of douching the nose with this preparation being agreeable, the surface keeping well moistened for the whole

day under ordinary circumstances. The douching may be repeated three times daily if desired, but in the majority of cases I find once daily quite enough to relieve the dryness and uncomfortable feeling.

How does mucin act? It acts by supplying what is deficient—viz., the protective, indifferent, non-peptonisable, and hygroscopic substance—mucus. By introduction into the gastric cavity first, before digestion begins, the sensitive ulcer or erosion or inflamed wall is covered over and shielded from irritation by the acid gastric juice, and by thus soothing the surface layer reflex secretion of the acid gastric juice is prevented, for it is believed that hypersecretion is thus reflexly brought about. It also doubtless acts by giving the epithelium resting time to recover itself and to revive and grow stronger, and thus to withstand the attacks of the acid contents—perhaps it allows the young epithelial cells time to replace their effete and broken up predecessors. Mucin, as the foregoing cases amply bear out, has undoubtedly a laxative action, thus acting much more valuably than subnitrate and subcarbonate of bismuth, both of which have hitherto been so much used under these pathological conditions, acting, of course, by being precipitated over the sensitive surface and forming a protective covering, but having the great disadvantage of causing constipation.

One of the leading clinical indications for the administration of tabloid mucin compound is the presence of a clean, red, angry, or dry tongue, frequently a clean, red, fissured tongue, indicating a deficiency of gastric protective coating, and this condition of tongue will often be found in association with a pale and thin, or a pale, thin, and desiccated, state of the mucous membrane of the nose and pharynx, or a semi-secretionless post-nasal and pharyngeal surface, as shown by hardly a handkerchief being used in a week and another almost invariable accompaniment—obstinately confined bowels. Now, just as in patients with deficient nasopharyngeal secretion streaks and tracks of old and functionless mucus may be seen on the nasal and pharyngeal walls, which must be washed away by alkaline douches just before using the mucin compound wash, so in some of these stomach cases, when, as in the dry nose and throat, there is really a greatly diminished production of mucus, the tongue will be found sometimes rather coated and dry than always red and clean or red, clean, and dry. But if in association with this there is pain after food and constipation of the bowels, such a tongue indicates not too much mucus in the stomach as in catarrhal states, but really shortage of mucus, and it will be necessary, in order to remove old gastric mucus and to prepare the way for mucin, to administer first a saline aperient. Such a saline aperient I find in the tabloid mag. sulph. co. or a saline aperient water may be prescribed, such as that of Carlsbad. I carefully avoid peptonised foods or preparations or peptonised milk in the treatment of such cases of gastric irritation and erosion and ulcer, because they are unphysiological. For the first half-hour, and most probably longer, the acid gastric juice ought to be immediately neutralised as it is secreted by union with alkaline salts introduced in the food, but chiefly by uniting with the proteids of the meal; this is essential so that the amylolytic process may proceed. It is of supreme importance that such neutralisation should take place in all irritable and ulcerated states of the stomach surface unless the exposed and hypersensitive parts are to be worried by the free acid, thus causing pain and inducing vomiting. Therefore, the administration of such prepared foods is to be avoided, and I find that as soon as a patient can retain such a proteid as essence of beef or fresh meat juice the pain becomes much less and I relegate the use of such prepared foods to cases of worn-out stomach in the aged.

Welbeck-street, W.

**MEDICAL SERVICE AT ST. LUKE'S CHURCH, LIVERPOOL.**—The Lord Bishop of Liverpool has signified his intention of preaching a sermon to the members of the medical profession at St. Luke's Church, Liverpool, on Sunday, Oct. 20th, at 3 p.m., being the nearest Sunday to St. Luke's Day. The President of the Liverpool Medical Institution has tested the feeling of members of the profession as to the desirability of their attending the service in academic robes with the result that a majority decided against the proposition. 24 gentlemen have already signified their intention of being present at the service and it is expected that a much larger number will attend. Should this new departure in Liverpool prove a success it is proposed to make the service an annual one.

## CANCER, ITS NATURE AND ITS TREATMENT.

By JOHN HOLDEN WEBB, M.R.C.S. ENG.,

L.R.C.P. LOND.,

FORMERLY HOUSE SURGEON TO ST. MARY'S AND LOCK HOSPITALS.

I HAVE just finished reading Professor J. G. Adami's address on the Causation of Cancerous and Malignant Growths, an excellent dissertation on the biology of the cell, but one that makes no effort to explain—which by its heading we might have expected—why tumours become malignant. This is a question which the professor of pathology himself asks and I should have been surprised if he could have answered it or even suggested an elucidation. It seems to me that the cause of malignancy can be fined down to one of two things: either the loss of, or a chemical change in, a secretion—the latter for choice—or else it is due to parasitic invasion. Nothing else seems to fit into the environments or clinical features of cancer, its variability, its persistence. Constant irritation, Cohnheim's suggestion, morbus miseræ, each have had their advocates and their day.

What are the arguments adduced in favour of the parasitic nature of malignancy—"infectivity"? In the absence of the production of a specific microbe the whole matter hangs on the question whether cancer may be conveyed or not. On the one hand, we have the fact that for generations surgeons, pathologists, and nurses have been in the habit of freely handling living and morbid specimens with complete impunity. Until recent years I do not think I ever remember anyone even suggesting that the disease was contagious, and instances are not uncommon where husbands have had regular connexion with their cancerous wives without any ill effect to themselves. In fact, it occasionally happens that the first indication of this dreadful malady is hæmorrhage and pain after coitus. I can recall to mind two instances at the present moment; one occurred 20 years ago and I often see the husband about in the streets. That is one side of the question. On the other side we learn that cancer is increasing in frequency. There is evidence that the malady is occasionally "localised" and that its recurrence is shown by statistical returns as intensified in certain places. These are houses built on alluvial soil, bends of rivers, and low-lying lands subjected to inundations. It is said that some buildings can even be designated as cancerous on account of the number of deaths that have taken place within their walls. Now, of course one cannot say that this is incorrect, that such is not the case; statements like those which appeared in the Cancer Number of the *Practitioner* are not to be denied by any direct evidence. Moreover, the statistics may be perfectly correct, but that does not show that the disease is microbic. For instance, just the same results might be obtained if the malady was due to such a local cause as a defect in the water-supply.

"Localisation"—the fact that in some parts of the world one valley will team with the diseases that result from the loss of the ductless gland secretion, while on the other side of the mountain the surroundings being, for all that is known to the contrary, exactly identical, gland trouble is scarcely to be found—is used as an argument in favour of infectivity. With respect to certain low-lying lands and alluvial deposits being favourable to the dissemination of cancer, many years ago, when I first arrived in Victoria, malignant diseases were frightfully prevalent all over the goldfields. Now, from Ballarat to Dunolly, which in one direction takes in nearly the whole of the gold area, there is not such a thing as a river, as the word is commonly understood. Of course, there are creeks which carry away the surface-water in winter, but alluvial valleys do not exist and, as is well known, we have no malaria. The whole country is a volcanic plateau, off which the rain courses almost as soon as it has fallen. Yet this was a veritable home for cancer, the formation of the country and its geology being exactly the reverse of what we are told should be a malignant corner. In those days we attributed the prevalence of the disease to drinking rain-water caught from the roofs of the houses and immediately run into galvanised iron or cement-lined tanks. Naturally the water was very soft, and to this day I have a notion that the idea is not wholly wrong and that there

is much in the contention that the constant drinking of demineralised water is provocative of cancer. At all events, it is a sounder proposition to my mind than the theory which attributed the disease to the presence of a microbe that nobody has been able to find.

With reference to the inoculation experiments, what are they worth? Small neoplasms or inflammatory nodules may arise, though I question if the first really do, but I know that when I read the results of the experiments the impression left on my mind was that the tests were a failure. Certainly the inoculations did not take in anything like a satisfactory manner and they did not set up cancer.

The certainty of cancer being a curable disease several years ago was brought to my attention through meeting with a singular instance of spontaneous recovery. If anybody had related the story to me I should have told him at once that he had made a mistake in the diagnosis and I always expect the same measure to be meted out to myself. I saw the case first in company with Dr. Lawrence of Melbourne. The man had had two operations performed upon him, one the ordinary V incision of the lip and the other a similar but more extensive proceeding very nearly on the site of the first cicatrix. The disease had returned, and when we visited him the right jaw had become extensively involved. His mouth was filled with the tumour, an infiltration had occurred—that is to say, the disease had extended to the sub-maxillary gland, so that no operation was admissible. That man, save that he shed his lower jaw piecemeal not as one sees in actinomycosis, where the bone shells—recovered perfectly and was alive eight years afterwards, when he was accidentally killed at a railway crossing of which he was the gate-keeper. During the interval I saw him repeatedly, though I never recognised him as my former patient, and it was only a few days before his death that I heard the sequel of the case. Happening to meet the widow—the wife then—she told me who she was, and related how the bone came away, and so forth. She was under the impression that we had done something to effect this cure. At all events, I learnt from this case that cancer is a perfectly curable malady. If it could only be found out what went wrong, the remedy was probably close at hand. Now about this time the columns of THE LANCET were filled with the accounts of myxœdema and its connexion with a gland that until the present had been considered of no value, an unimportant lump of tissue pertinent only to fetal life. In reading the discovery and the symptoms of thyroid disease I thought that I saw the likeness between it and cancer and that probably the two were allied to one another in very close relationship.

A large majority of the people who suffer from gall-stones die from malignant disease. Mayo Robson, to quote one authority, observes this, and I think he puts the percentage as high as 87. Others mentioning this fact write of cholesterine irritation as if the disease was an inflammatory one. How can cancer be the product of constant irritation? If such were the case other calculi than the smooth, round, greasy gall-stone should give rise to similar effects, and we know they do not. A renal concretion will disorganise the kidney, cause abscess, and play as much mischief as possible, but the last thing one associates with these lesions is cancer.

Cancer is not communicable and yet is auto-infective. I think that this is generally admitted; it requires no reference to authorities on my part. But what does it mean? It implies that A, a non-cancerous man, is protected against the disease which B, a cancerous man, has got; or, in other words, that A possesses and still retains something that B has lost. Thyroid gland secretion has some action in cancer. I gave it years ago when the tabloids were first introduced by Messrs. Burroughs and Wellcome on several occasions. As a rule, one might just as well administer peppermint water, but sometimes it has a surprising action. I remember one patient who was, I really thought, going to recover. After a time I lost sight of her. She made a marvellous improvement for some weeks whilst under my care, but funds running short she had to return home. I read of a case in THE LANCET in which recovery actually did take place under the thyroid gland treatment.

Let me now ask two questions, the purpose of which will shortly be seen. The first is, What occasions the peculiar and offensive smell in cancer? It is one *sui generis* and is never smelt except when the disease is active. It is not due to sloughing, for ether injections, though dreadfully painful

for half a minute or so, will entirely remove it and yet the process continues. Its disappearance is the first indication that an ulcerative cancer is healing, though it may take considerable time for the decayed tissue to come away. The next question I wish to ask, is, Why does a cancerous patient die? Why does he waste so? It is replied, "By septicaemia, pleurisy, the effects of tumour pressure." Yes, these are concurrent affections which may or may not cut short life, but if none of these happen and infiltration is not extensive he will die from exhaustion. But why? I operated once on the lip of a man, aged 32 years. In five weeks the disease returned in the cheek; he very sensibly refused further operation and in 10 weeks' time he died, the whole illness lasting four months. He had no pneumonia, no pleurisy, no rise of temperature beyond just a degree from the beginning to the end, no suppuration to speak of, no extensive transposition of cells, for none of the glands were involved, and yet the disease ran as rapid a course as I have ever seen it do. I could call to mind one or two other cases similar to this. What caused the wasting and exhaustion that preceded death? I must ask that three postulates may be granted to me, only the last of which will require any comments:—1. All secretions must have their uses. 2. Consequently the loss of any secretions, save such as are only provided for temporary requirements, e.g., milk, must mean some sort of disorder. Glandular provisions vary as their nerve-supply is stimulated or repressed, but there is always a certain limitation beyond which *plus* or *minus* must be followed by some derangement. 3. All reproduction is subject to control, or else given nutrition it would be indefinite. This law is as universal as that of gravitation and applies as much to the cell and the fibre as to anything else, be it a sheep or a salmon. Now, in obedience to this law there must be something that regulates the proliferation of the cell. It can only be a secretion, subjected to a higher power.

Again (1) ultimate tissue elements are cells and fibres; and (2) cancer is uncontrolled proliferation of the cell. Now if one ultimate element can lose its reproductive inhibition it stands to reason that the other can do the same. It is a natural consequence, and if it were otherwise nature would exhibit a partiality which she never elsewhere evinces, so that we should expect to find some disease that corresponds to cancer, and that is exactly what we have in myxœdema which is uncontrolled proliferation or cancer of the fibre. Consequently we have three forms of cancer (I think a fourth should be added, but let that pass for the pre-ent): (a) carcinoma, uncontrolled proliferation of the cells, derived from the hypo- and the epi-blast; (b) sarcoma, *idem*, ..... cells derived from the meso-blast; and (c) myxœdema *idem*, ..... fibre. Is not posterior mediastinitis a form of local fibre cancer?

When we evaporate bullock's bile—or that from a dog is perhaps better, on account of the latter being carnivorous—at a certain stage in the proceeding we notice the presence of a soap. Having separated the mucin and lecithin, and removed the colouring matters, there remains a very sticky reddish substance which consists of a bitter principle, animal gum, a soap, and, if the filtering has been done while the alcohol was hot, some cholesterine. Now, we always meet with cholesterine in its crystalline form—that is to say, when it has become a morbid product. Of course, in the economy it is in solution and is kept in this condition by its natural aqueous solvent soap. It is the loss of this soap that permits cholesterine to separate from the living cell and cell-cancer to start. The uncholesterine cell is the uncontrolled cell, and here, perhaps, comes in the connexion of this disease with the constant drinking of demineralised or rain-water. The red material referred to above is termed in text-books "sodium-glyco-cholate" and "sodium taurocholate." It does not matter what it may be called, its animal constituent forms a soap with the sodium salt. If the hands be washed with it it will soon be seen that it is a soap. The "Dictionary of Solvents" mentions soap as the solvent of cholesterine, but this was not shown to me until the patient in my second case had recovered. When I came first to think seriously about cell proliferation I thought the control might be cholesterine, and in one case I injected that substance dissolved in ether—a very thoughtless thing to do, I must admit, for of course when the ether is evaporated the crystal re-appears, is absorbed, carried into the blood current, and in this form is eliminated by the kidneys, turning the urine into a vivid red. Of course, benzine and chloroform cannot be employed subcutaneously and

it was a long time before it struck me that soap was the aqueous solvent. My first impression was that cholesterine was the control, that it was in some way lost and if one could restore it by the hypodermic method some good might accrue. Accordingly I dissolved, or thought that I dissolved, some crystals in soap and administered thyroid secretion, injecting at the same time, only in a different place, seven and a half grains of gum that had been crystallised in ether. I thought that by administering thus the whole of the bile secretion, if I got any results I could afterwards discard any constituent that was useless, testing each in its turn. (By-the-by the notion that one cannot inject animal gum is erroneous. I have used as much as 15 grains without the slightest effect, beneficial or otherwise. From this I conclude that it is only a vehicle and in the treatment of cancer of no consequence. But to proceed.) The first case on which I tried this solution was an instance of epithelioma of the face. The patient, a woman, aged 76 years, had had this ulceration more or less for two years and when seen by me it was nearly of the size of a florin. It had been operated on, I think twice, by Dr. Barrett of Glenferrie, a suburb of Melbourne. After one proceeding it had healed up for a space but it broke out again shortly afterwards. He had scraped it, cauterised it, and used electrolysis. These failing he kindly passed the patient on to me. The injection answered splendidly, the ulcer quickly taking on a healing action and in a month it was well. The next instance was one in the Austin Hospital for Incurables. This man had had half of his lower jaw removed, secondarily to the lip incision the whole of the side of the face. After the second operation I used soap and cholesterine, the same solution as before. All this time I was under the impression that the active agent was cholesterine and that I had the latter dissolved, but it could not have been so for I had not broken the crystal up and unless it be crushed it will not dissolve. I suppose it must have passed into suspension only, for the iodine and sulphuric acid test gave it beautifully. For six weeks this man improved marvellously, when I conceived a way of dissolving the crystal so that the soap really took up a considerable quantity of cholesterine and I innocently injected this new solution as an improvement on the other. The results were most disastrous. The disease returned with extraordinary rapidity, and in a short time he passed away without pain or much stench. I then got hold of a breast case in an old patient of mine who, on my explaining the nature of the case, gave me *carte-blanche* to treat her as I liked. I showed the case to my neighbour, Dr. J. Jamieson, before I commenced dealing with it. His expression was, "Well, there's no doubt about that," nor was there. There was a tumour of the size of an orange which had been painless until recently, when the patient began to get neuralgia in her arms. The tumour, which was of two years' growth, was firmly attached and the nipple was deeply retracted. I injected soap, in which I thought I had dissolved some cholesterine, but as I have said, I must have been in error, and gave thyroid. This time I discarded animal gum. In less than six weeks the whole tumour had disappeared, leaving a firm cicatrix, and this fibrous tissue in its turn dissolved, so that in three months after the commencement of treatment one would hardly have known that there had been any disease at all; a little nipple retraction was all that was left. As I do not belong to any medical society I showed this case privately to my friends. Well, naturally everybody remarked, "Was it cancer?" Notice the sequel. For 15 months the breast remained perfectly sound, when one day the woman returned and showed me a rather suspicious skin spot. I injected it and in a few days to my surprise a slough came away leaving a malignant, stinking ulcer of the size of a half-crown, with a very dense base. I must say, for my own part, that I was rather glad to see this, for it was an absolute proof, if anything was wanted to confirm my diagnosis. By the same treatment, that is to say, soap and thyroid, this breast has completely healed for the second time. I must claim this instance as the first primary cancer of the breast successfully treated. After this I got a case of epithelioma of the hand from Dr. J. H. McGee of Melbourne. By this time I thought that I had perfected my solution, getting so much as half a grain of cholesterine to dissolve in half a drachm of soap solution, but when I came to try it in this case I failed most signally. Adhering to the cholesterine I failed again in a breast, but towards the close of this case I recognised

one error, but too late to save the patient's life, for she passed away peacefully without pain or stench or any other discomfort. This was rather a hopeless case from the first, for besides the malignant disease she had renal trouble and an ununited fracture of the thigh, and she was very old and feeble. Again I failed in a case of general cancer, although this time I only used the soap solution, without thyroid. Then came a rodent ulcer in a young woman 26 years of age. It was of 11 years' duration, and had been twice removed and once grafted. It was situated right in the middle of the forehead. This patient completely recovered in six weeks under the soap solution and thyroid per os. A big scar remained, and as it was healing the treatment was rather painful. Then I failed in a non-infiltrating epithelioma, again on the side of the nose and cheek. Here I did not give the thyroid, for with the peculiar wilfulness of some of the patients in these cases the man would not take it, but I do not know that I should have succeeded, for in neither of the two cases where the growth has started from the bone have I managed to effect a recovery. Then I had a case of epithelioma of the hand, a small thing of the size of a florin perhaps, and seemingly not attached to the bone. This did beautifully. The next case was an epithelioma of the tongue; the soap acted excellently, but on account of the extensive heart disease from which the patient, an old man, suffered and his generally exhausted state, I dared not use thyroid. I tried the general injections at first without effect, but he collapsed so after these that I had to abandon them and to revert to local insertions. He died, but absolutely without pain or smell; he just slipped into death, though extremely wasted, as a child will fall asleep in his mother's arms—a beautiful euthanasia. Fancy one dying from cancer of the tongue without pain or stench. The same happened in another very advanced instance in which the tongue, lower jaw, palate, and tonsil had been removed. The action of the soap was here most marked, although the man has not recovered, though as I write these words he is not dead, but on account of so much of his face having been removed the taking of food is a great difficulty. When I first saw him the whole of the interior of the mouth and cheek was one mass of cancer. It was extraordinary how he could live with such an extension of the disease. All smell and discharge have gone and he suffers no pain. I look on this as my champion case. I must instance one other case of recurrent epithelioma in which the patient died from an over-dose of soap solution. Until quite recently I thought that this preparation was a perfectly innocent one, of which any quantity might be injected with impunity. But such is not the case, for in the course of the treatment I gave this man two drachms at one time and he collapsed and succumbed in 24 hours. The soap solution should be just thick enough for blowing bubbles. Of course, it should always be boiled first and delivered warm. It is apt to occasion very painful spots, which look exactly as if an abscess were going to form, but if they are left alone in a couple of days all the tumefaction disappears, but meanwhile they are rather tender. Still they never do come to pus. I rather like a biggish inflammatory areola. Never more than a teaspoonful should be administered at a time, for, as I have related, injections are not absolutely without danger. If more is given shivering and collapse may occur. Another precaution is never to inject in one's own house unless means can be provided for the patient to lie down for an hour or two afterwards. To anticipate the shivering a morphia injection is advisable. It is always well, I think, to employ an anæsthetic, nitrous oxide for preference. If something of the sort is not used patients dread the needle and accordingly suffer in expectation and shirk treatment. At first I inject every other day and as the case improves less frequently until once every week or 10 days suffices. A very good soap to use is the superfatted soap prepared by Messrs. Allen and Hanburys, but for that matter common yellow bar soap will do. A bit should be dissolved in boiling distilled water and then strained through silk or closely woven calico. There are always some particles of dirt which might go through the needle and easily set up an abscess. In the many scores of injections which I have given I have only on two occasions set up an abscess. I have never yet managed to effect much good where the growth or ulceration started from the bone.

If I were asked what is malignancy I would reply, It is the crystallisation of cholesterine from the living cell. I

do not imply that there is any deficiency of cholesterine in the economy, but the cell has acquired the habit of passing it out of solution. That cholesterine in this disease is at fault the smell alone shows and this is why ether injections—shockingly painful—will deodorise an ulcer so well and for a time give such satisfactory results in respect to sweetness, but the odour returns, not, however, for a day or so. I once went very much astray with this will-o'-the-wisp. In carcinoma both tissue elements are represented, so the thyroid secretion is imperatively indicated, and I believe that the sole action of this body is to control the proliferation of the cell and that its action on metabolism is a snare and a delusion.

In conclusion, let me add that I hope some of the readers of THE LANCET will, in good faith, give my treatment a trial. It is rather in embryo, but in my hands it has given results far better than I ever anticipated.

Melbourne.

## A COMPLICATED CASE OF PLACENTA PRÆVIA.

By JOHN HOOLE, M.R.C.S. ENG., L.S.A.

THE patient was a married woman, aged 38 years. She had had six children born alive, and with the exception of the fourth pregnancy all her labours had been normal. At the fourth pregnancy the child presented in an abnormal position and the medical man had to resort to turning to deliver her. On July 13th, 1900, about 8 P.M., I received a telegram requesting me to attend the patient, who lived at a distance of five miles. I was told, on my arrival, by an old midwife, that the patient had gone her full time, but that about 4.30 P.M. of the same day she had been seized with violent pains in the abdomen; this was accompanied by profuse hæmorrhage which had continued. Also, that two months previously, some hæmorrhage had occurred which continued more or less until the present time. I was informed that the patient had persistently refused to see a medical man.

I found the patient in bed, lying on her back, in an upper room of a thatched cottage. She was blanched, restless, and slightly delirious, and muttering abuse at the midwife. Her pulse was hardly perceptible, and the abdomen on inspection was wider and flatter than in normal cases of pregnancy. The external genitals were obscured from view by a large blood-clot, which was continuous into, and entirely filled, the vagina. The bed-clothes, bedding, and floor plainly told that profuse hæmorrhage had occurred. On examination the os was dilated sufficiently to allow the tips of two fingers to be introduced, but it was rigid and unyielding. The placenta was completely presenting and there was slight hæmorrhage into the vagina. No uterine action was taking place. The husband, being informed by me of the serious condition of his wife, sent for Dr. B. E. Dalison of Puddletown to assist me. Pending the arrival of that gentleman I administered chloroform and separated the placenta from the uterine wall with my two fingers as far as I could reach in a circle; this necessitated much force to dilate the os. I also gave repeated enemata of hot saline solution. On Dr. Dalison's arrival, after consultation, we agreed, considering the great loss and serious condition of the patient, to deliver her with forceps, as a round, hard substance could be indistinctly felt through the placenta which it was thought might be the head of the child. The patient being again put under chloroform the forceps were applied, force being used to introduce them. They were locked, but on traction only a large piece of the placenta was brought away. On further examination a leg was felt; this was brought down and after considerable time and great difficulty, in which severe force was used, a dead child was born. The remainder of the placenta was removed and the uterus contracted without any more hæmorrhage. Small quantities of hot milk with brandy were administered to the patient at intervals during the night. I attended her daily and she was douched with solutions of perchloride of mercury. The temperature never rose above 102° F. and in a fortnight she was convalescent, taking appropriate nourishment and a mixture of quinine and iron.

If I may suggest the points of interest in the case, they are the great loss of blood, the considerable force that had to be used in dilating the os, first by our fingers and

afterwards with forceps, together with the rapid dilatation of the passages in delivering the child, and the subsequent absence of any nervous or septic symptoms.

Throgmorton-avenue, E.C.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

#### ST. BARTHOLOMEW'S HOSPITAL.

##### A CASE OF DEPRESSED FRACTURE OF THE SKULL FOLLOWED BY OCULAR SYMPTOMS.

(Under the care of Mr. A. WILLETT.)

SYMPTOMS connected with sight are rare in head injuries, if we put aside paralyses of the extrinsic muscles of the eye. In the case recorded below the left occipital lobe was lacerated, and as a result there was a partial right hemianopia. This is the condition that might have been expected from a lesion of the occipital lobe on the left side. The great improvement in the extent of the field of vision is striking. For the notes of the case we are indebted to Dr. G. V. Bull, late house surgeon.

A man, aged 48 years, was, on March 14th, 1901, admitted to St. Bartholomew's Hospital, under the care of Mr. Willett, having fallen 30 feet down a lift shaft and struck the back of his head (apparently on an edge). On admission he was conscious but did not remember his accident. He was cold and collapsed and was bleeding profusely from a wound in the occipital region in which depressed and comminuted bone could be felt. Both pupils reacted and there was no sign of paralysis. The pulse was 120 and regular and the temperature was 97° F. No injury to the spinal column could be made out. The wound was examined three hours later, a flap of skin being turned back on the left side of the skull. A gap was then found in the skull extending from the occipital protuberance upwards and slightly to the left for about three inches and being from one-third to two-thirds of an inch wide. In this gap there were fragments of bone and lacerated brain substance (left occipital lobe); the fracture extended as a linear fracture both upwards and to the base. The superior longitudinal sinus was intact, as was also the tentorium. The fragments were removed by forceps and one piece of bone at the upper angle was elevated. The wound was irrigated with boric lotion, the skin was sutured with fishing gut, and a wire drain was inserted at the lower end. During the night the patient was very restless and the pulse was weak and very irregular. On the next day he was better, the temperature being normal and the pulse 120 and regular. He complained of great pain in his back and was unable to pass urine. His knee-jerks were much exaggerated, but there were no ankle clonus and no affection of sensation. The wound was dressed on March 22nd and was found to have healed; the scar was pulsating strongly. On April 15th he was up and walking about. He was then able to pass urine. He was free from headache and from giddiness except on sudden change of position. He complained of inability to see objects to his right. No change in the fundus was made out, but Dr. Bull was unable at that time to test him with the perimeter. On April 20th the patient left the hospital and was not seen again till July 16th. He was then improved in every way and he said that his sight was better and that he could read better. The perimeter showed a partial right hemianopia, the lower quadrant of the fields of vision being lost. There was no change in the fundus. The pupil did not react when light was thrown on the affected part of the retina. He complained of pulsation in the scar and weakness in his back. On Sept. 12th Dr. Bull saw the patient again. He still complained of the pulsation which

he felt but did not hear, but it was less marked. The perimeter showed improvement, especially in the right eye, and there was no change in the fundus.

FIG. 1.

RIGHT.

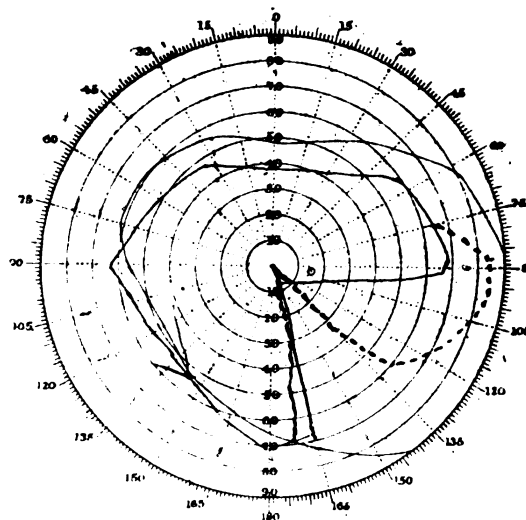
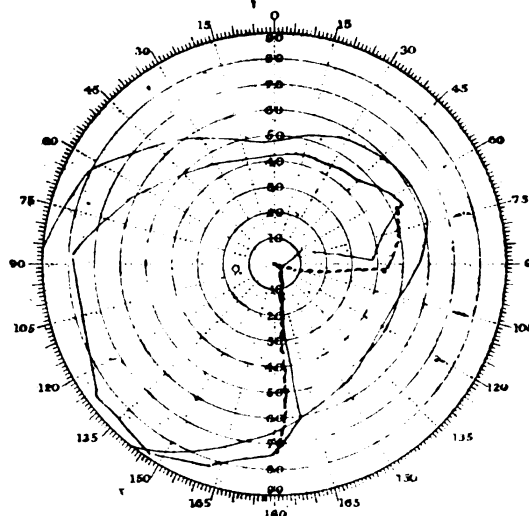


FIG. 2.

LEFT



The continuous line represents the field of vision on July 16th and the interrupted line that on Sept. 12th.

*Remarks by Dr. BULL.*—The case is interesting on account of the almost complete recovery. The patient is now able to do six hours' light work a day and may reasonably hope to improve still further. I am indebted to Mr. Willett for permission to record the case.

#### BOLINGBROKE HOSPITAL, WANDSWORTH COMMON.

A CASE OF ACUTE DOUBLE INTUSSUSCEPTION IN A FEMALE  
INFANT, NINE MONTHS OLD; OPERATION 24 HOURS  
AFTER ONSET OF SYMPTOMS; RAPID RECOVERY;

REMARKS.

(Under the care of Mr. THOMAS BRYANT.)

RETROGRADE intussusception is much rarer than the ordinary variety, and in the following case both forms were present. The occurrence of these two varieties in the present instance affords an insight into the method of

production of intussusception. In both forms in this case the transverse colon ensheathed the neighbouring bowel, so evidently the transverse colon had become for some reason greatly relaxed, so as on the one hand to allow the cæcum to pass into its interior, and on the other to slip over the descending colon and rectum. It is highly improbable that any inflation or injection can ever reduce a retrograde intussusception. By employing such methods valuable time is wasted and the exhaustion resulting from these attempts cannot but materially diminish the chance of recovery from a subsequent operation. This case is a forcible argument in favour of primary laparotomy for intussusception.

On August 7th, 1901, a female child, aged nine months, was sent into Bolingbroke Hospital, Wandsworth Common, by Mr. R. C. Kirby of Earlsfield-road, Wandsworth, with what he diagnosed as an intussusception. The child had been healthy and had not been weaned. The bowels had been regular. The day before admission at 3 P.M. sickness had suddenly appeared and had returned each time the child took the breast; four hours later the infant passed blood from the bowel mixed with mucus, and accompanied with slight straining, and these symptoms persisted at short intervals up to the time of admission.

On admission these symptoms were as described and the infant did not seem to be in much pain, nor was she seriously collapsed; one tumour was perceptible above the umbilicus and a second one in and above the left iliac fossa; both tumours appeared to be moveable. The abdomen was not very tense. Nothing could be felt in the lower bowel on a rectal examination, although the finger when withdrawn was covered with blood and mucus. Mr. Kirby's diagnosis of intussusception was confirmed by Mr. Bryant, who happened to be at the hospital when the infant was admitted, and an immediate operation was decided upon. It was performed at three o'clock on August 7th, about 24 hours after the first onset of symptoms, with the infant under the influence of chloroform. A median incision below the umbilicus was made and an elongated tumour was felt occupying the position of the left half of the transverse colon down to the rectum, which could not be brought into view without increasing the incision to the extent of an inch above the umbilicus. The small intestines were kept back with difficulty by means of flat sponges. When the colon was exposed and examined two distinct intussusceptions were clearly found to be present. One was of the cæcal variety, involving some inches of the ileum, the cæcum with its appendix, and the ascending colon, which were invaginated into the transverse colon, and reduced without difficulty by pressure upon its distal end and gentle traction at its proximal end, the body of the cæcum being very oedematous and hard. The second intussusception seemed to be in the descending colon and some four inches of empty colon separated the two seats of trouble. In the second intussusception a curious condition existed, for it was quite clear that the colon itself had as it were slipped over the descending colon and the rectum and had so produced an invagination of the upper portion of the rectum into the colon. This was reduced like the one described by manipulation from above, helped by slight traction upon the rectum at the brim of the pelvis, the proximal or cæcal end of the intestinal tract being invaginated in the usual way into the colon in the one case, and the distal or rectal end of the bowel being invaginated into the colon in the other. The invaginated structures were in both situations highly congested and oedematous, but otherwise they were normal. The parts involved were then cleansed and the wound was carefully closed with sutures, the peritoneum being included with all the other tissues in each stitch. The abdomen was firmly bandaged and the infant was allowed to take the mother's breast within an hour. The child had stood the operation well and was during the operation kept warm with blankets. Directly after the operation an enema of two ounces of warm milk was administered. No symptom subsequently appeared to cause anxiety. The temperature rose to 102.6° F. on the night of the operation but it steadily fell, and on the third day became normal. No vomiting occurred and on the day after the operation the bowels acted four times. There did not seem to be any pain. On the fourth day the child was fed by the bottle on milk-and-water, as the mother's milk seemed to be poor. On the sixth day the wound was dressed for the first time and was found to have healed. Everything subsequently went on steadily to a convalescence and at the end of three weeks the child

was taken home, and when these notes were written two months later she was quite well.

*Remarks by Mr. BRYANT.*—This case is full of interest, and from the contrast of the two varieties of intussusception which coexisted is somewhat uncommon. The higher or cæcal variety presented no unusual conditions, but the lower form was most irregular, for in it the descending colon had evidently slipped over the higher portion of the rectum and had thus invaginated it. This fact also explains why in the case recorded there was but little tenesmus and why nothing abnormal could be made out from a digital rectal examination; for the tenesmus, which exists as a rule in the common form of intussusception and which is evidently due to the expulsive efforts of the ensheathing portion of bowel to expel the invaginated, was in the case under consideration non-existent. With respect to the treatment which was adopted the case reported must tell very strongly in favour of early operation, and Mr. Kirby must be cordially congratulated upon his action in sending his patient at once to the hospital for treatment, and in thus enabling me within 24 hours of its commencement to bring about by an immediate operation a reduction of the two intussuscepted portions of bowel, which it is very probable no other measure, such as inflation by air or the injection of water, could have effected, with its accompanying rapid and sound recovery. Such a case as this in an infant only nine months old terminating so satisfactorily, without one single symptom which could cause anxiety, cannot do otherwise than strengthen the view which I strongly hold that a strangulated intussusception should be dealt with, like a strangulated hernia, by immediate operation, and that no valuable time should be wasted by the adoption of any temporising measure. I am indebted to Mr. K. B. Alexander, acting house surgeon, for the notes of the case.

### LEEDS GENERAL INFIRMARY.

#### A CASE OF ACUTE INTESTINAL OBSTRUCTION; REMOVAL OF THREE FEET OF GANGRENOUS GUT; RECOVERY.

(Under the care of Mr. W. H. BROWN.)

THE amount of bowel which may be resected without undue interference with the processes of digestion and absorption is difficult to determine. Dreesman<sup>1</sup> collected 26 cases in which more than a metre of small intestine had been removed, and six successful cases have been recorded in which more than two metres have been excised.<sup>2</sup> Four of these six cases had digestive disorders as a result of the removal of so much bowel, but the younger the patient the more likelihood is there that compensatory hypertrophy may occur and functional disturbances be avoided. In the case recorded below three feet of bowel were removed, so that no digestive troubles are likely to occur. The question of immediate suture of the cut ends of the bowel after resection for gangrene or the temporary formation of an artificial anus must always be determined by the general condition of the patient. The case also illustrates the value of continuous infusion of saline solution during an operation. For the notes of the case we are indebted to Mr. F. Stansfield, acting house surgeon.

A boy, aged 16 years, was admitted into the Leeds General Infirmary on March 29th, 1900, suffering from suppurative appendicitis. The abscess was opened and drained and he was discharged well on May 30th, 1900. On July 1st of the present year he was re-admitted with well-marked signs of internal strangulation. The general condition was very bad. Intravenous injection of saline solution was commenced at the time of the opening of the abdomen and continued throughout the operation. So soon as the peritoneal cavity was exposed a large loop of gangrenous small intestine was seen; this was brought outside the abdomen. The cause of constriction was a band fastening the bowel down to the side of the pelvis just beneath the site of the appendicular abscess. The band was cut through, the gangrenous bowel was cut off, and the severed ends of the healthy intestine were stitched to the skin. The pelvis, which was filled with dark, offensive fluid, was washed out and drained with a glass tube. The boy made a good recovery and on August 14th the integrity of the intestinal canal was restored

<sup>1</sup> Berliner Klinische Wochenschrift, 1899, No. 16.

<sup>2</sup> THE LANCET, Jan. 27th, 1900, p. 218.

by simple suture. The patient made a rapid recovery and is now (Sept. 24th) quite well.

*Remarks by Mr. BROWN.*—I have never before met with a case in which there was so much destruction of tissue where recovery followed. The condition of the patient was so bad that I did not expect him to survive the operation and but for the employment of continuous transfusion I am sure that he would have died on the table. Whether the pre-existing appendicitis was the cause of the strangulation I cannot say, but the point of constriction closely adjoined the former abscess. I did not attempt an immediate joining up of the severed bowel for two reasons: (1) the condition of the patient was far too desperate to permit of a prolonged manipulation; and (2) I am satisfied that in such cases it is far better to provide a free exit for bowel contents by making an artificial anus than to attempt to restore the continuity of the intestinal tract by any mechanical contrivance which lessens at the most critical time the calibre of the intestine.

## Medical Societies.

### OBSTETRICAL SOCIETY OF LONDON.

#### *Leukæmia and Pregnancy.—Exhibition of Specimens.*

A MEETING of this society was held on Oct. 2nd at 20, Hanover-square, W. Dr. PETER HORROCKS, the President, being in the chair.

Dr. G. E. HERMAN read a paper on Leukæmia and Pregnancy, reporting a case of his own, and 12 other cases already published elsewhere. Critical examination showed that in five of these latter cases the evidence of leukæmia was deficient. There were, therefore, only eight cases from which to draw conclusions as to the mutual influences of pregnancy and leukæmia. These eight cases agreed in the following points: (1) the presence of an enlarged spleen and liver caused patients with leukæmia to suffer more from the abdominal distension of pregnancy than healthy women; (2) the symptoms of leukæmia were aggravated during pregnancy; (3) in pregnancy with leukæmia there was a great tendency to abortion or premature labour; (4) death sometimes quickly followed the termination of pregnancy with leukæmia; and (5) if the patient survived the termination of pregnancy great improvement took place. Dr. Herman concluded from these facts that in pregnancy with leukæmia the induction of premature labour or abortion was indicated as a therapeutic measure.

Dr. AMAND ROUTH remarked that the paper was one of special value. As Dr. Herman had remarked, the combination was one of a blood dyscrasia with a condition causing pressure from the presence of a large spleen. It was therefore different from ordinary blood dyscrasias such as in other specific diseases and also from conditions causing simple pressure such as the presence of an ovarian tumour, and these facts imparted a special feature to the condition. There was a point not alluded to in the paper that he would like to ask Dr. Herman about—namely, as to the effect of leukæmia on the fœtus in utero. A good deal had been written on the transmission of diseases to the fœtus and it appeared that a process of filtration might be effected by a perfect chorionic epithelium, whilst a defective epithelium would allow of the transmission of disease to the fœtus. This was illustrated by cases of twins in which one fœtus was healthy and the other was affected with the same disease as the mother, such as cholera, glanders, malaria, erysipelas, and many of the acute specific fevers. Had any of the children of these leukæmic women had their blood examined after birth? He quite agreed with Dr. Herman's conclusion that premature labour should be induced when symptoms threatened to become urgent without waiting for serious developments.

Dr. A. L. GALABIN had met with one instance of the association of pregnancy with a disease as to which he was rather doubtful whether it should be classed as splenic leukæmia or so-called pseudo-leukæmia. There was a large splenic tumour reaching as low as the crest of the ilium, with extreme anæmia and tendency to hæmorrhage. But the relative proportion of leucocytes in the blood was only moderately increased, not to that extreme degree which was seen only in leukæmia. He had watched the lady for several years, and under treatment with arsenic and large doses of quinine the tumour somewhat diminished in size and the general condition improved. On one occasion she came for

consultation, being about three months pregnant, and reported herself as feeling better. The spleen also seemed to have diminished in size since the pregnancy. He had had no experience of the effect of pregnancy on such a condition and feared grave results from the tendency to hæmorrhage, but in view of the actual improvement he did not advise interference at that time. The patient shortly afterwards went to France, and there it was decided to induce abortion before the child had become viable. He did not know whether the reason was the abdominal distension or the general symptoms. The result was that the patient died undelivered, and, so far as he could learn from the friends, the cause of death was hæmorrhage.

The PRESIDENT was surprised to hear how little hæmorrhage there was from the uterus in these cases of miscarriage during leukæmia. Hæmorrhages were common in this disease, and probably that accounted for the miscarriages, the bleedings taking place in the placenta and so destroying the ovum or fœtus. In some cases hæmorrhage occurred some time before the actual miscarriage and thus allowed certain changes to take place which prevented flooding. He understood Dr. Herman to advocate the induction of miscarriage or labour as soon as the presence of leukæmia was discovered, without waiting for any bad symptoms.

Dr. HERMAN said that the infant was not affected in maternal leukæmia. He advised induction of premature labour or abortion as a therapeutic measure only in cases in which the symptoms caused suffering and were aggravated after the onset of pregnancy.

The following specimens were exhibited:—

Dr. GALABIN: (1) A Sub-peritoneal Fibro-myoma; and (2) a Sarcoma of the Uterus.

Dr. HERBERT SPENCER: An Ovarian Cyst which ruptured three days after labour.

Dr. WILLIAM DUNCAN: (1) A Fibro-myoma of the Uterus; and (2) a Papillomatous Cyst of the Broad Ligament.

Dr. H. R. ANDREWS: (1) A Fibro-myoma of the Ovary; and (2) a Melanotic Sarcoma of the Ovary.

Dr. ROBERT WISE: A Volsella Forceps for Friable Cervix.

The specimens were discussed by Mr. RUMLEY DAWSON. Mr. ALBAN DORAN, the PRESIDENT, Dr. F. J. MCCANN, Dr. AMAND ROUTH, and Dr. T. G. STEVENS.

**TORQUAY MEDICAL SOCIETY.**—The new session was opened on Oct. 4th by an address from Dr. T. D. Acland, physician to St. Thomas's Hospital, on the Recognition of Certain Intra-thoracic Conditions which Justify Surgical Treatment. The address, which was illustrated by diagrams, was listened to with great interest by a representative gathering of the medical men of Torquay and its neighbourhood, the subject chosen being one which specially appealed to the professional instincts of the medical men of a south coast health-resort. Although coming from a physician it really was a plea for surgical measures in the treatment of certain conditions of intra-thoracic disease after a correct diagnosis had been made, the lecturer admitting, however, that in a few cases a correct diagnosis during life was not always possible.—In the evening Dr. Acland was entertained at dinner at the Queen's Hotel by the members of the society, Dr. William Powell, the President, being in the chair, and a most enjoyable evening was spent.

**GLASGOW SOUTHERN MEDICAL SOCIETY.**—The opening meeting of the session was held on Oct. 3rd in the rooms of the Southern Medical Club, 18, South Portland-street, Glasgow, Dr. William Watson being in the chair. There was a large attendance of members and after some formal business had been transacted the meeting proceeded to the election of office-bearers, with the following result:—Honorary President: Dr. Thomas McCall Anderson. President: Dr. John Stewart. Vice-Presidents: Dr. Duncan Macgillivray and Mr. Thomas Richmond. Treasurer: Dr. Andrew S. Tindal. Secretary: Dr. John Fraser Orr. Editorial Secretary: Dr. Andrew Wauchope. Seal-keeper: Dr. Matthew Dunning. Extra Members of Council: Dr. John Lindsay Steven, Dr. Hugh Kelly, and Dr. James Hamilton. Court Medical: Dr. William Watson, Dr. Ebenezer Duncan, Dr. Robert Pollok, Dr. Thomas Kirkpatrick Monro, and Dr. Alexander Napier. Representative to Victoria Infirmary: Dr. Charles E. Robertson.

**ÆSCULAPIAN SOCIETY OF LONDON.**—A meeting of this society was held on Oct. 4th, when Dr. Arthur T. Davies, the President, gave his inaugural address, taking for

his subject "Thomas Sydenham, M.D., L.R.C.P., 1624-1689." A full account of his life-work, his friends, his theories, and his treatment was listened to with much attention and interest.

## Reviews and Notices of Books.

*Memoirs and Letters of Sir James Paget.* Edited by STEPHEN PAGET (one of his sons). London: Longmans, Green, and Co. 1901. Pp. 438. Price 12s. 6d. net.

MR. STEPHEN PAGET has done his work as editor so well that we have a book entirely worthy of the noble name which it commemorates, even where it is not from the pen of Sir James Paget himself. Nothing has been added that is unnecessary, nothing included that is uninteresting, and at the end of this book we are left with a clear continuous idea of a long and beautiful life. Our impression is as definite, as inclusive, and as exquisite as must have been that left by one of Sir James Paget's own lectures on a favourite subject. The biography of a great man is always the finest and most inspiring reading, and we can imagine no book more likely than this to fire the best ambitions of a young, or to sustain the labours of an older, medical man. Though only in part intentionally and in part incidentally autobiographical the final result of reading these memoirs and letters is a perfect idea of a singularly consistent and successful career. Yet it must not be imagined that Paget's success came easily or from the first. The consistency was in his unwavering determination and incessant work, a consistency that bore him with scarcely any intervals but those of illness through more than 60 years of effort. Besides the strength of will and power of work we are left impressed with the clear sense, the humour, the deep kindness, the honourableness, and the religion of Paget. There are few lives which bear as well as his the scrutiny of the private or the public observer. We see him through this book as devoted to his home as to his hospital, and as beloved and respected by his family as he was revered and appreciated by his pupils and his patients. James Paget was almost as fortunate in his parentage as were his own children in theirs. Of his father he writes in his Memoirs. "He had a very large family and as long as he could he treated them very generously and educated them expensively. I should give a very wrong impression of my father if I were to speak of him only as a man of business. He was in this an admirable example; punctual, constant in work, perfectly fair, liberal, and honest; even when he failed no one blamed him. But he was besides a thorough gentleman—cheerful, well-mannered, peace-loving, and hospitable; perfectly temperate, when frequent drunkenness was not deemed vile; refined in conversation, even when cursing and nastiness were scarcely vulgar; and a lover of all that was simply beautiful in literature and art." In writing of his mother's father, "a kind of self-elected fine gentleman," Paget shows some of that aptitude for description and that high humour which appear so often in his letters and which must have given much of their irresistible attraction to his lectures and to his private conversation. He writes of his grandfather: "I just remember him—a fine old man, grave and dominant, for whom all his daughters had so profound respect that, although I never heard of his having said or done anything very wise, I never heard of their having wished for anything less or other than he did. And their respect for him did not diminish when he was dead; though he left them nothing, unless it were the gout, of which my inherited share has had great influence on my life." Paget's mother was a worthy companion for his energetic and hospitable father. Nine of her 17 children grew up to

full age. "She took the close charge and guidance of them all; she managed all household affairs; she collected 'everything'—autographs, seals, caricatures, shells, corals and agates, old china and glass, and curiosities of all kinds; and all her collections were orderly arranged and labeled in her own fair hand. She wrote I know not how many scrap-books and filled I know not how many albums." Till the age of 13 years James Paget was at a school which cost his father 8 guineas a year. At the age of 16 years he was so possessed of a desire to enter the navy that the uniform was actually bought, and it was only at the last moment that his mother's entreaties against letting him leave home prevailed. "I cannot imagine a happier escape," he writes, "for I cannot think of a calling for which I should have been more utterly unfit than for His Majesty's navy at that time." This was in 1830. The navy being abandoned young Paget was apprenticed "to an active, energetic, and well-educated practitioner in the town" of Yarmouth. Five years was the term of apprenticeship then required, at the end of four and a half of which he was to be allowed to go to hospital study in London. There is some pertinent criticism of the system of apprenticeship as compared with modern medical education. Its advantages, he says, were greater than is now commonly supposed. Many things of great utility in after-life could be thoroughly learned—things of which the ignorance is now a frequent hindrance to success. The period was, however, too long and the necessary daily work dull and at times tedious and apparently useless. As an apprentice Paget experienced an epidemic of Asiatic cholera. It is hard to remember anything of the methods of practice then generally used, he says, which is still instructive; the principles were deemed sure whatever consequences might ensue from observance of them. His apprenticeship gave opportunities for the study of botany and of this Paget writes: "I think it impossible to estimate too highly the influence of its study on the course of my life. It introduced me into the society of studious and observant men and gave me an ambition for success or at worst some opportunities for display in subjects that were socially harmless; it encouraged the habit of observing, of really looking at things and learning the value of exact descriptions."

Besides botany Paget taught himself French and learned to sketch. Of his educational work at this time he says: "Its immediate utility was too little, its indirect utility too great, to be told. The knowledge was useless; the discipline of acquiring it was beyond all price." It was at this time when he was 20 years of age and shortly to enter St. Bartholomew's Hospital that he published with his brother Charles a "Natural History of Yarmouth." Of the years of pupilage at St. Bartholomew's Hospital space does not permit us to tell much, but there is no part of the book better worth reading for an insight into what work means to men of Paget's stamp or for a glimpse of his ardent friendship and of his quick appreciation of character in companions or teachers. Throughout the book we find indications of Paget's keenness of insight and correctness in estimating the persons with whom he came into contact. Probably no quality was of greater value to him in later years of practice. The next chapter of the memoirs, Waiting-time, 1836-43, contains a record of hard work at teaching and writing and a scantiness of remuneration that should console the struggles of any young medical man. His annual income from practice at this time never exceeded £23 13s. and for the curatorship of the hospital museum he received £40 a year. He was now engaged to be married to the lady who after seven years became his wife, and, though the prospect of enough to marry on was then distant, his letters show a cheerfulness, a spirit, and a determination that seem justly to give an instinctive trust in the future to such men as James Paget.

Besides teaching, Paget was at this time constantly writing and reading and he taught himself German and Dutch. In 1843 he became lecturer on physiology at St. Bartholomew's Hospital and the first dean of the medical school. For the next eight years he lived in the hospital. During this time he became professor of surgery and anatomy at the Royal College of Surgeons of England and assistant surgeon to St. Bartholomew's Hospital.

In May, 1844, he married and "began to enjoy that happiness of domestic life which has lasted without a break for 39 years." There is no more attractive passage in this book than one describing Paget at work at home. He had the rare talent of being able to read and to write in a room where the rest of his family were otherwise occupied, and seemed to keep up at the same time a lively interest in what they were engaged upon or talking of, putting a word now and then into their conversation whilst busily engaged with papers and books at his own particular bit of the table. As a lecturer and public speaker Paget has had few equals in his own profession, and the memoirs contain interesting pages in which he discusses the value of this power and the best methods of exercising it. He counsels both the learning of speeches by heart and the practising of the power of speaking offhand. The consciousness that this can be done in case of need he found a wonderful help to the memory in that it diminished the fear of utter failure. *A propos* of lectures, he recalls Abernethy's historic utterance on entering his class-room full of students, "Good God, gentlemen, what will become of you all?" Paget, too, was impressed with the immense responsibilities of medical practice. He held it the bounden duty of medical men to make themselves as efficient as possible, and one of his favourite themes was the possibility—further, the necessity—of combining science with practice. In 1851 he resigned the wardenship of the College at St. Bartholomew's, and then private practice really began. It grew now steadily till, when at its height, an income was reached of £10,000 a year. Reflecting on the causes of success and failure Paget writes: "Anyone with a safe knowledge of his profession, free from the faults of habitual idleness, unpunctuality, incivility or unbusinesslike conduct, may be as certain of success in the practice of medicine or surgery, or both, as in any other business in life." Speaking, however, of the risks of professional life he reflects that had he died before 47 years of age he would have left wife and children in extreme poverty. The memoirs were written in the years 1880-85, when Paget was between 60 and 70 years old, and deal mainly with his early life. The latter years of great success, numerous friendships, and constant work in practice and on public and professional bodies are best appreciated by reading the second half of the book which contains the letters. Space will not permit us to deal adequately with the many professional questions discussed in these letters or with the abundance of delightful personal anecdotes and experience that they tell. We recommend their perusal to every one of our readers. Whether on account of his wisdom in all conduct of affairs or for the honourable and dignified view he took of life, whether for his insight and honesty in dealing with patients, or his indefatigable labour and interest in all that concerned his own profession, no medical man should fail to make himself familiar with the character and example of Sir James Paget.

*Scientific Memoirs by Medical Officers of the Army of India.*

Edited by Surgeon-General ROBERT HARVEY, M.D., C.B., LL.D., Director-General, Indian Medical Service. Part XII. Simla: Government Central Branch Press. 1901. Price 5 rupees 12 annas.

THESE scientific memoirs by medical officers of the army of India serve to illustrate a matter on which we dwelt very recently as to the favourable position in which army medical

officers are placed for observation and experiment and for cultivating natural science, into the fields of which they could but peep at the beginning of their medical studies. The present part of these memoirs contains six contributions from medical officers of the Indian Medical Service. A brief enumeration of their titles will show how wide and varied is the view open to medical officers for scientific study and observation. There are two papers upon botanical subjects by Major D. Prain, I.M.S., the superintendent, and Lieutenant A. T. Gage, I.M.S., the curator of the Royal Botanic Gardens, Sibpur, near Calcutta, and one on Zoological Gleanings from the Royal Indian Marine Survey Ship *Investigator* by Major A. W. Alcock, I.M.S., superintendent of the Indian Museum and Professor of Zoology in the Medical College of Calcutta, formerly surgeon naturalist to the Indian Marine Survey. In addition to these there are some important contributions dealing with questions of medical or sanitary science, such as one by Captain C. F. Fearnside, I.M.S., on Inoculation of Malaria by Anopheles; Some Observations on Spirillum Fever as seen in the Monkey, by Captain George Lamb, I.M.S., of the Research Laboratory, Bombay; and a contribution by Major Ernest Roberts, I.M.S., on Some Practical Methods of Sanitation in India, with Special Reference to Cantonments. With the last-named paper we have already dealt at some length.<sup>1</sup> A Leguminous genus *Afzelia* was founded by Smith in 1798 for a tropical African tree, but since Smith wrote no one has been able to find a plant exhibiting all the characters that he attributed to it. The paper by Major Prain is a learned and exhaustive one on the Characters and Relationships of *Afzelia* (Smith). The Zoological Gleanings by Major Alcock were well worthy of being collected and classified and of being published as a supplement to the Summary of Deep-sea Zoological Work which appeared in these memoirs in 1899. They contain much information and many curious and suggestive observations of scientific interest. We notice that Captain Fearnside in the practical conclusions of his paper on Inoculation of Malaria by Anopheles dwells very forcibly upon the great practical—indeed, in his opinion, insuperable—difficulties that exist in the way of ridding India of the anopheles and in the application of prophylactic measures to the native population of that country. His view is "that the malarial parasite is trimorphic and that there is a phase (extra-corporeal) yet to be discovered." The contribution on Spirillum Fever as seen in the Monkey, by Captain Lamb, records the results of a series of carefully-conducted experiments carried out by its author at the Research Laboratory, Bombay, together with his observations thereon. The concluding article, by Major Roberts, which is of a very practical character, on the Methods of Sanitation in India with Special Reference to Cantonments, has, as we have already said, been previously noticed. These memoirs are written in a thoroughly scientific spirit and are admirably illustrated, and their production is highly creditable to the Indian Medical Service.

LIBRARY TABLE.

*Physiologie.* Von Dr. P. SCHULTZ. Second edition. Illustrated. Berlin: S. Karger. (British importers: Williams and Norgate, London.) 1901. Pp. 364. Price 7s.—This is exactly the sort of book to fill the critical soul of the reviewer with an agonising sense of his own ineptitude for the task of reviewing. There is nothing to criticise and nothing to commend. Dr. P. Schultz's "Physiologie" presents a dull level of accurate physiological fact. We have searched, we will admit, for some inaccuracy, some *lapsus calami*, some unguarded expression of opinion, which might relieve the dull monotony of its hopeless mediocrity, but for all our pains we have searched in vain. We must, however, express our gratitude to the

<sup>1</sup> THE LANCET, July 6th, 1901, p. 29.

author for providing us in his preface with the **very** cue for which we were racking our brains, so that we might express in the fewest possible words our sentiments on the literary merits of this compendium. In the words of Terasson, this work "would have been much shorter if it had not been so short," and in those of Kant, "much plainer if it had not been so plain." It is not, however, from the standpoint of the British reader or of the British student that the value of this compendium should be estimated, but rather from that of the candidate for the German "Staatsexamen," for whose powers of assimilation no man can be accountable and whose traditional thirst for accurate information may well be satiated in the cup which Dr. Schultz has filled to overflowing. Regarded from this point of view—that is to say, as a compendium of exact physiological information for students preparing for a cut-and-dried examination, in which accuracy is at a premium and independent thought and controversial considerations at a discount—this "Studentenbuch" must be regarded as entirely satisfactory. The contents are divided into 24 chapters, each of which constitutes a complete lesson in itself. The illustrations, though not numerous, are excellent of their kind, while the print is small and very trying to the eyes.

*Operative and Inoperative Tumours of the Urinary Bladder: a Clinical and Operative Study based on 500 Cases.* By E. HURRY FENWICK, F.R.C.S. Eng., Surgeon to the London Hospital, Surgeon and Pathologist to St. Peter's Hospital for Urinary Diseases. London: J. & A. Churchill. 1901. Pp. 124. Price 5s.—The surgery of the bladder owes much to the cystoscope. Before the invention of this instrument it was certainly sometimes possible to form a diagnosis on the nature of a vesical growth, but the diagnosis was frequently difficult and often was erroneous. Our present knowledge of the cystoscope enables us frequently to speak with certainty on the nature of a tumour of the bladder and we are justified in recommending or advising against any operative procedure. Not only does this diagnostic means aid us in deciding what cases are unfit for operation, but by the knowledge gained by cystoscopy we undertake more readily an operation in a suitable case. The use of the cystoscope is widely spread, and it is not always recognised that much familiarity with the instrument is needed before reliance can be placed on what is seen, for it is not merely necessary to see the growth, but it is equally needful to be able to interpret what is seen. As Mr. Fenwick's work is based on 500 cases which he has himself treated it may be worth while to quote the four rules he lays down for the examination of tumours of the bladder. They are as follows: "Rule 1. Always cystoscope, never sound, for symptomless hæmaturia. Rule 2. A gentle rectal examination should be the first step in the inquiry. Rule 3. Dark hæmaturias without clots rarely need any preparatory washing-out for clear cystoscopy; a diuretic often suffices. Rule 4. Always cystoscope and operate, if necessary, at the same sitting if the bladder has to be washed out." The difficulties of cystoscopy are then described. The author divides vesical tumours into (1) the benign villus-covered growth; (2) the malignant villus-covered growth; and (3) the bald malignant growth; and these three forms and their clinical histories are then described. The operative treatment of growths of the bladder is fully given. Mr. Fenwick has operated 135 times with nine deaths. He objects to the use of Petersen's bag, as it is in his opinion not merely useless but liable to produce secondary cystitis by traumatism of the rectal mucous membrane. He prefers to make the opening into the bladder only large enough to admit the forefinger. For accurate work the author thinks highly of the use of a caisson, for by its use only a small opening is necessary, and manipulations are much simpler, and the whole growth can be readily removed. Caissons of different sizes are

employed. The light is obtained from a small head lamp. The book contains almost entirely the methods practised by the author himself and refers but little to other modes of treatment; still, as Mr. Fenwick has devoted much attention to this branch of surgery the work is of great value.

*Treatment of the Insane Then and Now.* By the Rev. HENRY HAWKINS, M.A., late chaplain of Colney Hatch Asylum. London: Society for Promoting Christian Knowledge. 1901.—In this little brochure of 32 pages the late chaplain of Colney Hatch Asylum gives a concise and interesting account of the treatment of lunatics in the eighteenth century when, "after all allowance was made, the management was often superstitious and inhuman," and contrasts it with the more humane and enlightened methods which were introduced in the early decades of the nineteenth century by Pinel, Tuke, and other apostles of humanity and which are uniformly in operation now. Reference is made to the bright and cheerful surroundings in which the lunatic is placed in our modern asylums, to the careful provision for their religious privileges, and to the special royal and naval hospitals for soldiers and sailors suffering from mental derangement. The basis of the compilation is acknowledged as resting on the late Dr. D. Hack Tuke's "History of the Insane in the British Isles," with excerpts from the report of the Commissioners in Lunacy published in 1900. The little work is popularly written and is intended to give the lay mind an outline of the differences between the conditions of lunatics now and a century ago.

*Golden Rules of Hygiene.* By F. J. WALDO, M.D. Cantab., D.P.H., Barrister-at-Law. Bristol: John Wright and Co. London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. 1901. Pp. 69. Price 1s.—This is the tenth of the excellent little "Golden Rule" series and the author's name is sufficient to guarantee the practical nature of the notes which it contains. It is written with the idea of collecting together in a succinct form—the little book may easily be carried in the waistcoat pocket—a few salient points that may prove of service in the acquisition of a practical knowledge of hygiene, the subjects treated being air, water, disposal of refuse, food, and infectious diseases. Under the heading of food milk is, of course, included, but we fail to see any reference to butter. Several common epidemic diseases may be caused by contaminated milk, and the author rightly alludes to this fact in his notes of warning; and butter is quite as likely to convey disease as is milk. This fact is too often overlooked.

#### JOURNALS AND MAGAZINES.

The *Medical Magazine* for September is largely occupied by prospectuses of the different London, provincial, Scottish, and Irish medical schools, and various preparatory institutions. Dr. P. Brouardel's articles on the measures adopted by several nations for the Prevention of Consumption are concluded, and Mr. A. G. R. Foulerton writes on the Influence of Secondary Infections in Chronic Pulmonary Phthisis. Mr. Foulerton considers the nature of chronic pulmonary tuberculosis before secondary infection has converted it into one of chronic pulmonary phthisis. Uncomplicated pulmonary tuberculosis is, he admits, very rarely met with in practice, but frequent evidence of its occurrence is given in the post-mortem examinations of persons who have died from other causes. The secondary infecting bacteria are mainly the pyogenic cocci, particularly streptococcus pyogenes. He notes that the bacteria which under normal conditions are most often arrested in the fore part of the nasal passage, are those which are most frequently found infecting pulmonary cavities. Mr. Foulerton believes that the treatment of secondary infections should be the chief object aimed at in the treatment of phthisis. The magazine contains also an abstract of the Wilde lecture on the "Flora of the Human Body," by M. Elie Metchnikoff.

# THE LANCET.

LONDON: SATURDAY, OCTOBER 12, 1901.

## The Treatment of Cancer.

IN a leading article in *THE LANCET* of August 31st last, p. 601, we referred to the address by HIS MAJESTY THE KING to the foreign delegates at the British Congress on Tuberculosis, in which HIS MAJESTY said: "There is still one other terrible disease which has up to now baffled the scientific and medical men of the world, and that is cancer. GOD grant that before long you may be able to find a cure for it or to check its course." Such a wish will be echoed in every quarter of the globe. For the purpose of our present remarks we may take the term "cancer" as synonymous with "carcinoma." At the present time operation is the only means that offers any certain hope of cure and then only under particular circumstances. It is not our intention here, however, to enter into the prospects of a patient suffering from cancer of the breast, for instance, when submitting to operation. Such considerations have been fully discussed by many authors, but the subject of the treatment of cancer is one which has again been recently brought forward in the lay press, and it is important that false ideas on the subject should not be allowed to become prevalent. In order that a rational treatment of cancer may be established it is first essential that its cause and nature must be fully understood; unfortunately this is not yet the case, but many investigators are at work and the clinical material is only too abundant. A somewhat new departure in the method of investigation has recently been instituted, notably at the Middlesex Hospital, where, as is well known, a special wing is devoted to cancer cases—namely, a systematic investigation under the auspices of a committee to whom a report of the work accomplished is regularly submitted. This scheme has manifold advantages over individual work, although the latter should naturally be encouraged as far as possible by means of grants and opportunities for study. In view, moreover, of the many institutions where cases of cancer are admitted we strenuously oppose the proposition which has been made in a lay paper, that a "cancer clinic" should be established; the multiplication of special hospitals for cancer is not desirable. Philanthropic individuals anxious to serve an admirable cause by giving much-needed funds would do a greater service by assisting existing institutions where such investigations are being at present carried out than by seeking to establish fresh ones.

We are forced to admit, then, that the cause and nature of cancer have not yet been definitely made out, but we have every confidence that the labour of present investigators will bear fruit and will pave the way for a rational treatment of the disease. Meanwhile we are strongly of opinion that it is legitimate to give a hearing to all those who have had opportunities of examining cases and

of trying various measures of treatment. Acting on this principle we publish a paper by Mr. JOHN HOLDEN WEBB of Melbourne who claims that he has met with some success by the injection of soap solution, his theory being that the cause of cancer is cholesterine which has been separated "from the living cell," so permitting the "cell-cancer to start." We cannot say that we have been particularly impressed by the cases which he describes. Nevertheless, we do not feel justified in refusing to publish such an article as the one under discussion, as every method which holds out any hope of success should be duly tried. The same remarks apply to the article published in *THE LANCET* of Sept. 28th, p. 845, entitled "The Prospect of Cure in Cancer," by Dr. H. MANDERS, who advocates the employment of electricity in the treatment of cancer and maintains that in currents of high potential and exceeding frequency there is a means, hitherto unknown, of stimulating the vital energy of cells and of enabling them to utilise auxiliary remedies.

The belief that a satisfactory treatment of cancer is possible without recourse to operation, or perhaps we should say in cases where operation is undesirable or impossible either on account of the situation of the disease or its extent, is strengthened by cases which have been recorded in which the malignant disease has spontaneously disappeared. Mr. A. PEARCE GOULD brought a remarkable case of this nature before the Clinical Society of London<sup>1</sup> in which a cancer was removed from the breast of a woman by Dr. W. J. COLLINS in 1885, the nature of the tumour being confirmed by microscopical examination, and further operations being necessary in 1892 and 1894. In 1895 she was admitted into the Middlesex Hospital and was then found to have extensive recurrence of the disease, the glands being largely involved. In the following year, however, practically all signs of the disease had disappeared; no special treatment had been adopted. Cases of this nature are, of course, extremely rare, but they prove that malignant disease may be eradicated.

Another method of treatment which has received much attention is the administration of thyroid colloid; some satisfactory results have been claimed. Removal of the ovaries also has undoubtedly in some cases been productive of good results, Dr. G. E. HERMAN amongst others having recorded some successful cases; and these two methods when combined have been found greatly to relieve malignant conditions, even if a cure has not been effected.

In an address delivered on Oct. 4th before the West London Medico-Chirurgical Society by Mr. ALFRED COOPER (see p. 965) the present treatment of inoperable cancer was fully reviewed and measures were recommended which had been adopted with success. In addition to the performance of oöphorectomy, to which we have already referred, the use of Coley's fluid in cases of inoperable sarcoma was mentioned, and in cases of rodent ulcer and in the superficial malignant ulceration in other parts the Roentgen rays seem to give some hope of improvement. Mr. COOPER is also of opinion that in cases where these methods are declined or are inapplicable the internal administration of celandine is worthy of trial.

The greatest caution is, of course, necessary in considering

<sup>1</sup> Transactions of the Clinical Society of London, vol. xxx., 1897, p. 205.

any mode of treatment that may be advocated. As in the case of all diseases of which the nature is doubtful quack remedies or modes of treatment which have apparently been of benefit in a single case may be counted in dozens, but it is scarcely necessary to point out that for any therapeutic measure to be seriously considered it is absolutely essential that the nature of the growth should be firmly established, if possible by microscopical examination or by the examination of competent observers, and also that a series of cases should be treated, before even a temporary opinion can be arrived at. We say this in explanation of what we maintain above—that all measures which have been found to give relief in cases of cancer should be duly considered and carefully tried. Once more we must protest against attempts to stir up public feeling in the lay papers with regard to what are termed “experiments upon hospital patients.” Such statements are made by persons entirely ignorant not only of the methods adopted by physicians and surgeons attached to hospitals but also of everything connected with medical science. It is useless, however, we fear, to argue with such people or with the editors who allow such communications to appear in their columns, communications which are calculated to injure charitable institutions and to hinder the advance of scientific knowledge.

## The Reorganisation of the Army and Indian Nursing Service.

WE endeavoured to deal last week with the report of Mr. BRODRICK'S Committee on the Reorganisation of the Army Medical Services in a broad, comprehensive spirit. While we stated that some of its recommendations might have either to be developed still further or to be modified and that the effect and working of them must for the time partake of the nature of experiment we nevertheless recognised that the report, as a whole, was framed on bold and generous lines. We assumed that in any case a good deal of freedom of action would within those lines be open for such improvements or modifications of the new scheme as were hereafter found advisable or necessary. One of the grave problems of modern warfare, which the course of events in South Africa has brought out so prominently, is the proper care and nursing of the sick and wounded. It is not surprising, therefore, to find it recommended that the Nursing Service should be specially represented on the Army Medical Advisory Board about to be established and that the matron-in-chief of “Queen Alexandra's Nursing Service” is to be included among its members for that purpose. This naturally brings us to the consideration of the report on the reorganisation of the Army and Indian Nursing Service which was also drawn up by the same Committee that reported on the reorganisation of the Army Medical Services and was issued as a separate document at the same time.

The report on the reorganisation of the Army and Indian Nursing Service consists of eight pages and after a perusal of these we are glad to congratulate the members of the new

Nursing Service on their good fortune in not being called upon to encounter a series of examinations such as beset the path of officers of the Royal Army Medical Corps.

The Committee recommend that there shall be one military nursing service for His Majesty's army in the United Kingdom, India, and the Colonies, to be designated “Queen Alexandra's Imperial Military Nursing Service.” This amalgamated service is to be under the control of a board of which Her Majesty Queen ALEXANDRA is to be requested to assume the presidency. The chairman is to be the Director-General of the Army Medical Service, or an officer nominated by him, and two members of the Army Advisory Board, of whom one shall be a civilian, are to be members of the Nursing Board. The same principle which was so apparent in the report on the reconstitution of the Army Medical Services—namely, that of bringing them into the closest relations with the profession in civil life—is likewise apparent here, for three matrons of large civil hospitals with medical schools are to have a place on the Nursing Board. The other members are to be the matron-in-chief, a representative of the India Office, and two members (to hold office for three years) nominated by Her Majesty the President. The minutes of the proceedings of the Nursing Board are to be laid by the matron-in-chief before the Army Advisory Board and the Secretary of State will, if necessary, decide in cases of divergence of opinion between the two boards. All this sounds a somewhat complicated procedure but it is, we suppose, officially speaking, necessary.

Subject to the general control, then, of the Army Advisory Board the newly-constituted Nursing Board will have a good deal of power and responsibility in advising the Secretary of State upon all matters appertaining to the Army and Indian Nursing Service and its organisation, development, and administration.

There is no need to enter at any length upon those portions of the report defining the functions and duties of the different grades, the conditions of service, and other details regarding pay and allowances, seeing that these are sure to be carefully studied by all directly interested in the subject and that they are very much such as, speaking generally, might have been anticipated. The scheme as it stands on paper seems to have been carefully thought out and to be a promising one, but it is impossible to say until it is practically tried whether it will prove efficient and will realise all that may be hoped from it. Apart from special training, patience, sympathy, gentleness, and devotion are most essential qualities required for successful nursing, and in these respects women excel men. Nursing is a woman's special sphere. If it takes time to make a soldier it takes much longer to make a really good nurse, the value of whose services when obtained is, however, incalculable. We cannot speak too highly of the watchful care, skill, and unselfish devotion displayed by such a stamp of lady nurses in the hospitals of South Africa. We can only hope and believe that the members of the new Nursing Service will have nothing to complain of in regard to the position accorded to their service which under the new *régime* will have a large sphere of influence and independence and, we feel confident, of usefulness also.

## The Reformation of Habitual Drunkards.

THE reclamation of the inebriate, if a difficult, is not quite a hopeless, matter. Experience has proved that in cases where a rudiment of will remains a power of refusal in the presence of temptation can frequently be developed from it. This, in brief, constitutes the psychological justification of what are known as inebriate reformatories. In so far as these institutions can be made to promote successfully this process of will-cultivation in so far will they have secured for themselves a *locus standi* in respect of the work they do. There are, it is true, various economic points to be considered in defining their proper position. At the outset it should be noted that, as stated in our issue of Sept. 28th, p. 862, we do not regard the drunkard as one who is merely the subject of mental disease. Occasionally he may, indeed, become such, but the habit of drunkenness in itself is not insanity. It is the custom with many advocates of temperance to speak as if the captives of self-indulgence were well-nigh hopeless of deliverance and practically rid of personal responsibility. If they were so reform were equally hopeless. It is because we do not agree with this view of the case that we are disposed to look with approval on any rational project for their moral reconstruction.

Since the passing of the Inebriates Act of 1898 a considerable amount of attention has been attracted to the system which provides for this class of people the educational restraint of a reformatory. From the report of the establishment for female inebriates at Farmfield, Surrey, it is possible to form some idea of the plan on which a work of this kind may be carried out and of its future possibilities. The estate of Farmfield was purchased by the London County Council and adapted to its present use at a cost of £19,965. It comprises 374 acres of farm land of moderate quality and provides accommodation for 30 female inmates. A further sum of £20,000, it is stated, has been allotted with a view to the housing on the estate of 80 more women. A plain but not a sparing diet, of course without any intoxicant, and an eight-hours' working-day form the daily rule of life. The usual occupations consist of laundry, dairy, and farm work. The cost of maintenance is not light. Up to the present time it has amounted to £1 9s. 4d. per head per week. The Farmfield colony has been less than a year in existence, and none of the inmates have as yet been allowed to leave on licence. Consequently, it is impossible to gauge the measure of success achieved in it. The opinion appears to prevail, however, that detention for at least a year, and preferably for a longer period, is necessary before anything approaching a reformation of character can be looked for. It is, indeed, impossible to speak with any confidence on this subject. The whole reformatory scheme is in its experimental stage. For this reason it seems advisable that the system should not be too readily or as yet too widely adopted. It must be borne in mind that some time must elapse before it is possible to tell how far the after-life of inmates has been able to follow the course to which it was introduced in the reformatory.

There is, moreover, as we have said, an economic as well as

a moral side to this subject. County and borough councils are certainly not justified in going to any length in order to carry out even a work of reclamation. Some regard must be had to the social position of inmates in reformatories. When the income of the inebriate or of his relatives can procure his admission into one of the numerous "retreats" where payment is required it is not to be tolerated that the ratepayers should be taxed for his maintenance. Nor in the case of the pauper inmate should provision be made for idleness. It is no less essential to the well-being of the drunkard than fair to his temperate neighbours that while under care he should work for his living and earn it. Unless this rule be carried into practice we cannot see what justification there is for a reformatory, since it must not only prove a drag on the public purse, but must surrender a material part of its reforming method. A suggestion has been made that the less tractable inmates of the ordinary certified inebriate reformatories such as that at Farmfield should be taken in hand by the State which is expected to provide a special form of reformatory for their reception. It is true that powers are granted under the Act for the establishment of State reformatories for criminal drunkards, but we are tempted to inquire whether the place which they are intended to fill could not be found within the walls of prisons already existing. There it should not be difficult to exclude alcohol while promoting habits of industry. It seems somewhat superfluous that another place of restraint should be provided for the intractable inmates of certified inebriate reformatories.

## Annotations.

"No quid nimis."

### MEDICAL OFFICERS OF HEALTH AND DIAGNOSIS.

A CORRESPONDENCE involving a point of considerable interest to medical officers of health and to medical practitioners generally has recently taken place between Dr. David Roxburgh of Bryanston-street, W., and Mr. A. Wynter Blyth, medical officer of health of St. Marylebone, and has been made public by the former gentleman.<sup>1</sup> Stated briefly the question arose from a case of small-pox with regard to which Dr. Roxburgh, who was attending the patient, felt doubtful and which he accordingly did not notify as such, but with regard to which he informed the medical officer of health of the district in which it occurred. There appears to be some question between Dr. Roxburgh and the Public Health Committee of St. Marylebone as to the time which elapsed before the case was finally diagnosed and removed, but with respect to what actually took place Mr. Blyth writes as follows: "Immediately on receipt of your letter I telephoned to Dr. Greenwood, and he saw the case between 11 and 12 midday, and a second time in the evening," and from this passage it is apparent that he does not limit his duties in practice as he would seem to limit them in theory from the next paragraph in his letter. He there writes, "I am always pleased to assist my medical *confères*, but you must understand that the diagnosis of cases is no part of the duty of a medical officer of health; the responsibility of diagnosis rests with the medical attendant entirely; after

<sup>1</sup> The Times, Oct. 8th, 1901.

the diagnosis is made and the case notified the duties of the sanitary officers commence." Taken literally, and acted upon, this statement of the position would in many cases lead to disastrous consequences, and would probably bring the medical officer of health into serious collision with the local authority employing him. The medical attendant of a sick person must not shirk his responsibilities; he must notify in the case of certain specified diseases, if in his opinion his patient is suffering from one of them. Should he fail to do so he is liable to prosecution, and for this very reason, if he writes to the medical officer of health during an epidemic of small-pox and gives information to that official of a case with regard to which he declines to advance a definite opinion, he may almost be assumed to do so with the knowledge of his position and of the danger of shirking responsibility should such responsibility really rest upon him. It is, however, perfectly well known that errors of diagnosis may be made, and, in fact, have been made, in cases of small-pox, and that a wrong decision, resulting in a case of small-pox escaping notification and the measures consequent upon notification, may be a very serious matter for the community at large. Mr. Wynter Blyth's view, as expressed in his own letter without qualification, is that the diagnosis of cases is no part of the duty of a medical officer of health. As we have suggested, he may depart from it in practice, but, taken merely as an academic statement of principle, it will hardly bear investigation. He is not, of course, to be regarded as a consultant who may be called in when any practitioner is in doubt; but he, for example, would not, either in theory or practice, be justified in sending to a small-pox hospital and otherwise dealing with a case notified as small-pox if he felt sure that the medical man who had certified it had done so in error, while the course he would thus take would be the result of his own diagnosis. Again, it is the duty of a medical officer of health, beyond all question, where he has an admitted case of small-pox to trace its origin and to ascertain, if possible, whether other persons may have been infected by it. If in the course of such an investigation he finds that the patient has been in frequent contact with a person who in the opinion of a medical practitioner is at the moment suffering from chicken-pox, can the medical officer of health in such a case say that diagnosis forms no part of his duties or that they only begin after the diagnosis is made by someone else and the disease notified? It is not easy to define where the duties of a medical officer of health either begin or end at any time, and during the occurrence of small-pox in his district their limits may be said to extend themselves. They include the searching out and, if possible, the stamping out of the disease in his district, and they involve coöperation with everyone who will assist in the task in his district or elsewhere. If a medical practitioner informs a medical officer of health that a case under his treatment may be small-pox and declines to certify it as such he may be evading a duty which the law imposes on him, and whether he be doing so or not is a question of fact, though not perhaps an easy one, which a magistrate may be called upon to decide. He may, on the other hand, be giving the earliest possible information as to a case in which early information is of the utmost importance and of which early information should beyond all question be given, even if it does not take the form of a certificate. That Dr. Roxburgh could not be blamed for not giving a certificate when he made his first communication seems clear from the fact that after this Dr. Greenwood saw the patient twice with an interval of several hours between his visits before she was removed. We have commented on Mr. Wynter Blyth's letter, not because we have any fault to find with his conduct, but because the second passage which we quote from his letter seems to suggest the view that Dr. Roxburgh would have done better to have waited until he

was prepared to enunciate a definite opinion embodied in a certificate, and that the St. Marylebone Borough Council, acting through their medical officer of health, would have been morally or legally justified in not acting until such a certificate was given. Neither of these views could be upheld for one moment, and the occasion is one for coöperation rather than for discussion.

#### THE RECONSTITUTION OF THE ROYAL ARMY MEDICAL CORPS.

It may be well to make it known to would-be candidates for admission to the Royal Army Medical Corps that the reconstitution scheme drawn up by Mr. Brodrick's Committee, the full text of which was published in our issue of Oct. 5th, p. 929, is *only a scheme*. Before it can be acted upon or taken advantage of it will have to appear as a Royal Warrant. Before this happens the outline scheme as published may be modified or amended in various ways. It is therefore quite useless for anyone to write or to call at the office of the Army Medical Department for information concerning the date of the next examination or any other points in the scheme, for nothing more is known than has been already published, and any letters asking for further information are merely a waste of time on the part both of those who write and of those who receive them.

#### DIFFERENTIAL DIAGNOSIS BETWEEN SMALL-POX AND CHICKEN-POX.

In another column we publish a letter from a correspondent drawing attention to the fact that the vesicles in chicken-pox are unilocular, whilst in small-pox they are multilocular, so affording a valuable differential test between the two diseases. As has been shown in the present outbreak of small-pox the diagnosis between that disease and chicken-pox is of considerable difficulty and, needless to say, an error may give rise to grave results, not only to the individual affected, but to the community at large. There are other differences between the two of which we may remind our readers, more particularly as the younger generations of practitioners have not had many opportunities of observing cases of small-pox. The initial symptoms are not so marked in chicken-pox—indeed, they may be entirely absent, whilst in small-pox the constitutional symptoms appear early and there is high fever. It is, however, to the eruption that most attention is naturally directed. In chicken-pox it is most abundant on the trunk and is less on the face and extremities. It is discrete and may appear in one crop or in successive crops, during a period of from one to five or more days. In small-pox the eruption is most abundant on the face, arms, and legs; moreover, there is a characteristic fall of temperature after the appearance of the rash. In chicken-pox the eruption is at first macular or papular, but becomes vesicular within a few hours. The vesicles vary in shape according to the part of the body on which they are situated, being oval on the chest, abdomen, and back, circular on the scalp, and irregularly round on the face, whilst on the arms and thighs they are mostly circular. The vesicles likewise vary in size on the various regions. They are clear, bright, and shiny and filled with a clear fluid. In small-pox the eruption is not fully vesicular within from six to 12 hours of its appearance, and the vesicles when formed are not oval. Previous vaccination frequently changes the characteristics of the small-pox eruption. Dr. J. MacCombie, writing in Professor Clifford Allbutt's "System of Medicine," also points out that on the extremities the similarity of the vesicles of chicken-pox to those of modified small-pox usually increases in direct ratio to the distance from the trunk. In many cases of chicken-pox the vesicles on the forearms, legs, backs of the hands, and back and dorsum of the foot

are round and hard, small in size, not unlike the eruption of modified small-pox, and if only the eruption on the forearms, hands, legs, and feet be observed it would be impossible in more than half the number of cases to say whether the disease was chicken-pox or small-pox. But all cases of small-pox present typical vesicles on either the abdomen, chest, back, thighs, or arms. Especial regard must therefore be had to the distribution of the rash, and especially to the fact that in chicken-pox some of the vesicles at least have reached their full development within one day from the appearance of the papule, while in small-pox the vesicles are not fully developed until five days after the appearance of the eruption.

#### TEMPERED CAPTIVITY.

MR. EDMUND SELOUS was moved to considerable indignation in the *Saturday Review* some months since by the condition of various animals in the Zoological Gardens; his emotions still seek a new outlet in a partial reprint of those articles which has been issued with the assistance of the "Humanitarian League." The writer of this pamphlet reads into the animal mind purely human feelings, an error which is exceedingly widespread. The study of animal psychology, as has been pointed out again and again, is apt to be most seriously impeded by this commonly accepted anthropomorphism. It is quite inaccurate to compare the sufferings of a man with those of a quadruped; our miseries, even purely physical pains and pangs, are so interwoven with experience, reflection, and brain processes generally that they are entirely changed in character. In altogether waiving discussion upon this very important point—indeed, in practically asserting an entire community of feelings and emotions between the lower animals and ourselves—Mr. Selous commits himself to extremely uncertain ground upon which to base an indictment of the actions and inaction of the Zoological Society. Besides, judged by such tests as we can apply, for example, by healthy appearance, alertness of demeanour, and by appetite and longevity, Mr. Selous's sympathies require revision. A parrot that lived for 54 years, a polar bear, a crane, a pelican, and a condor that survived among these alleged miseries for periods varying from 30 to 40 years, and plenty of other instances to which Mr. Selous can gain access, are not in absolute harmony with his views. Mr. Selous deprecates "an inaccuracy, however slight," as likely to damage his case. Properly impressed by this desire to avoid misstatements Mr. Selous would have done better to consult someone with adequate zoological knowledge, and others acquainted with the difficulties of, and problems connected with, keeping live animals before printing for a second time "The Old Zoo and the New." He should also have ascertained the precise circumstances of some of the creatures to which he refers. The swan allowed with "cruel absurdity" a minute basin to wash in was temporarily deposited in such a place. The great bustard was destroyed. The "jackals, large wolves, and wild dogs" are not limited to "brick yards about the size of a kitchen area"; they have in addition a considerable and dark den behind. When Mr. Selous observes of the wild cat that it utters a sound "between a moan and a snarl—a striking sound eloquent of fierce suffering"—he is a pure inventor of feline language. The eagle is thought by Mr. Selous and by the inexpert public generally to be mainly occupied in soaring and generally admiring the landscape. The eagle does not soar so much except to look for prey. If Mr. Selous knew much of the habits of monkeys he would not suggest a profusion of tropical trees for them to climb among. There would not be a leaf left by these mischievous creatures in a few hours. The "aerial shrubbery" desired for the chimpanzees and orangs would not long be in existence. Mr. Selous thinks

that the "poor apes," which he elsewhere "amusingly" terms "bosky Pucks," should be given opportunities for retirement. Tamed animals do not shun man. Eagles, vultures, kites, and owls, which Mr. Selous would exclude from his ideal "Zoo," live long in captivity and breed. Seals and penguins in Mr. Selous's ideal "Zoo" are to "get on very well together." Yes! The agreement would be thorough but gastronomic. The penguins would end the day within the seals. Otherwise there is no fault to be found with Mr. Selous's "Garden of Delight." We should be as glad as he to see it. But the Zoological Society must first of all add to its income a good many more thousands of pounds. Then the writer of the pamphlet before us would probably moderate his curious objection to the large number of species exhibited by the society and would cheerfully cry "Let them all come" (recollecting, though, we will hope, that he is not quoting Mr. Pickwick accurately, as he thinks he is) with the rest of us. The best method of attaining this desirable end—for Mr. Selous has no primary objection to captive animals—would be to encourage the public to visit the gardens instead of dissuading them by appealing to the most ignorant kind of sentimentalism, and to temper his criticisms with a greater amount of knowledge acquired on the spot—by admitting, for example, that while during the last few years large structural changes for the better have been effected in the erection of new houses there is every prospect of continued advance as far as the society's income will allow.

#### THE SOUTHWARK BOROUGH COUNCIL AND ITS PUBLIC ANALYSTS.

AT a meeting of the Southwark Borough Council held on Oct. 2nd at the Southwark Town-hall the Public Health and Sanitary Committee reported that they had had under their consideration the question regarding the public analysts at present holding office in the borough. It appeared that Dr. John Muter was appointed by the late Newington Vestry and the St. George's Vestry in 1872 and Dr. Richard Bodmer by the late St. Saviour's Board of Works in 1890. Dr. Muter was paid at the rate of 10s. 6d. per sample and Dr. Bodmer at a salary of £105 per annum for a maximum of 200 samples. The fees received by Dr. Muter alone during the quarter ending June last were £250 9s. 6d., and the amount was more likely to increase than to decrease. The committee had every reason to believe that the council could obtain the services of a fully-qualified public analyst to devote the whole of his time to the work of the council at a maximum salary of £500 per annum. The cost of fitting up and maintaining a laboratory and providing the necessary apparatus and materials, together with the services of a capable assistant, was estimated not to exceed £300 per annum, and having also in view the time which would be saved by the inspector in carrying samples to the analyst the committee were unanimously of opinion that a considerable saving would be effected by the appointment of one public analyst. Assuming that the Treasury should be of opinion that Dr. Muter was entitled to any compensation for loss of office the amount of pension based on the Treasury scale, without taking into consideration any deduction on account of apparatus and chemicals necessary to enable him to earn his fees, would amount to between £140 and £160. With regard to Dr. Bodmer, the amount of compensation would not exceed £25. They therefore recommended that the council should abolish the two offices and should appoint one public analyst to devote the whole of his time to the service of the council at a commencing salary of £400, rising by annual increments of £25 to a maximum of £500, the council to provide a laboratory, apparatus, and all necessary assistance. This was agreed to by the council. The council are well advised in adopting the recommendation of the committee. The appointment of public analyst should be

subject to the same conditions as that of medical officer of health, though always held by a different individual. The maximum salary might be £600 and not £500.

#### ST. THOMAS'S HOSPITAL: THE CHESELDEN LODGE OF FREEMASONS.

A WARRANT has been granted by the M.W. Grand Master for the formation of a Lodge to be called "the Cheselden Lodge," No. 2870, and the ceremony of consecration will be performed on Monday, Nov. 4th, at the Governors' Hall in St. Thomas's Hospital in the presence of the M.W. Grand Master H.R.H. the Duke of Connaught and Strathearn, K.G. (President of St. Thomas's Hospital), who will himself undertake a most important portion of the ceremony. The officers named in the warrant are W. Bro. Thomas Wakley, jun., L.R.C.P. Lond., as Worshipful Master, Bro. H. H. Clutton, F.R.C.S. Eng., as Senior Warden, and W. Bro. G. J. Crawford Thomson, M.D. Durh., as Junior Warden. It will be noticed that the name chosen for the lodge is that of the great anatomist and surgeon of St. Thomas's Hospital who introduced the operation for lateral lithotomy. Freemasons connected with the hospital who desire further particulars concerning the lodge can obtain information by applying to Bro. C. R. Box, M.D., 2, Devonshire-place, Portland-place, W.

#### MALARIA IN HONG-KONG.

WE have received a copy of a clinical report on malaria as seen in the Government Civil Hospital at Hong-Kong, compiled by Mr. J. Bell, acting principal civil medical officer, and Lieutenant G. Stewart, I.M.S., acting assistant superintendent. The report was laid before the Legislative Council by command of His Excellency the Governor. The blood of all patients with fever was examined and not only of those patients obviously suffering from malaria. Some interesting observations were the result of this investigation. Hong-Kong and most tropical countries are looked upon as being very prejudicial to the cure of tubercle. Amongst the Chinese in Hong-Kong the high mortality is put down to overcrowding and insanitary surroundings, but this cannot apply to Europeans and Indians, who form the bulk of the patients in the hospital and who suffer quite as much as the natives. Of 17 cases in which the blood was examined 15 were found to be complicated with malaria, and Mr. Bell and Lieutenant Stewart believe, and probably rightly so, that the malarial combination accounts in a great measure for the rapidity with which the disease advances. It is generally considered that malaria does not produce suppuration in the liver, but in two cases of hepatic abscess the characteristic blood-changes of malaria were demonstrated. Two cases of appendicitis were examined and both showed malaria. The combination of malaria with dysentery is, of course, very common. Out of 37 cases examined 35 showed malarial parasites. In the treatment of these cases quinine was found most useful in addition to salines and ipecacuanha; indeed, the writers of the report remark: "We would almost say that, if a case of acute dysentery does not improve in 48 hours under the latter treatment [salines and ipecacuanha] it is combined with malaria and requires quinine either by mouth or by enema." The combination of malaria with typhoid fever is most interesting to tropical practitioners. The diagnosis frequently presents many difficulties. Mr. Bell and Lieutenant Stewart examined 10 cases which had been seen by other practitioners several times, all of whom confirmed the diagnosis of typhoid fever. All the cases showed in the blood evidences of malaria. The effect of the complication on the chart was various. In some cases for several days the temperature intermitted regularly and markedly until, apparently, the malarial influence ceased to exert itself and

the typhoid element became predominant; in others, however, notwithstanding quinine, there was no intermission, and the chart throughout was more characteristic of typhoid fever. The writers state that they did not find much assistance from Vidal's reaction. The conclusion they arrive at is that in a case where the diagnosis is doubtful, if after thorough treatment by quinine for 10 days the temperature does not fall, in the absence of any symptom to account for the continued rise the case is in all probability one of typhoid fever. Mr. Bell and Lieutenant Stewart further remark that typhoid fever is considered to be a more fatal disease in the tropics than in temperate climates, and they suggest as an explanation that the malarial element which is so frequently present may account for the high rate of mortality. There are other matters in the report that we might draw attention to: we have perused it with much interest and we trust that a similar report for another half-year will be forthcoming.

#### A CASE OF FUNGUS POISONING.

THE *Newcastle Daily Journal* of Sept. 27th describes a case in which three young children, named Mason, Dodds, and Borthwick, picked some poisonous fungi in a field and were very soon taken ill. The report proceeds: "The children had to be carried to their homes and Dr. Story was promptly summoned from Catchgate. He applied the stomach-pump and various emetics. Dodds was the worst sufferer, and the doctor had to inject quicksilver which caused her to vomit a quantity of dark clotted blood. The children were yesterday reported to be out of danger." Being curious as to the reported injection of quicksilver we wrote to Dr. Story who kindly supplied us with the following real details of the case. "The children had eaten toadstools while out picking mushrooms. They came home at 4 p.m. and the child Dodds (the only bad case) went to the shop of a relative situated some yards from home, Dodds's mother being in the shop. Told to go home, the child stood before her mother twitching and grinning. The mother took her to the back of the house where she could see her own door and called her husband. He took the smaller child and beckoned the other to follow. This she failed to do and stood grinning. A niece picked her up, saying, 'There is something the matter with this child; she only grins and can't speak.' The smaller child then said that they had been eating mushrooms. When I arrived the child had been given castor-oil as well as mustard-and-water. The parents had also tickled the back of the throat and tried in every way to get the child to vomit but without success. I injected one-twentieth of a grain of hydrochlorate of apomorphine and in three minutes the child vomited a saucerful of toadstools. Put to bed she slept soundly for several hours." The reporter's interesting "quicksilver and clotted blood" must give way, therefore, to Dr. Story's timely apomorphine and consequent "saucerful of toadstools." Dr. Story's account of the symptoms, if they were correctly reported to him, shows a somewhat unusual effect of what was presumably one of the common poisonous fungi, probably agaricus. It is to be noticed that he does not himself mention seeing any twitching or grinning on the part of the child Dodds. Taken, however, in conjunction with the reported inability to speak, these symptoms may very probably have been present, the child showing early that nervous upset which sometimes precedes and sometimes follows the alimentary disturbances caused by poisonous fungi. In this case, as in most, the symptoms began early. It is only occasionally that they are postponed for 24 or more hours. When nervous symptoms predominate they do not often take the form which they apparently assumed in this instance. More commonly if there are convulsions of any kind they are more general than the "twitching and grinning."

which are probably to be interpreted as a limited convulsive seizure. In a child such symptoms following poisonous ingestion rather suggest analogy with tetany in association with gastric disorder. The nervous symptoms caused by poisonous fungi are not always of a paroxysmal kind. In the case of *Amanita muscaria* a pleasing intoxication is produced, followed by stupor. This is the fungus which has yielded an alkaloid, muscarin, and the active principle of which is excreted in the urine. Among the natives of Kamschatka it is a practice for one to drink another's urine after having eaten of these fungi for the sake of its pleasantly intoxicating properties. Oliver Goldsmith, in his "Letters of a Citizen of the World," speaks of a tribe amongst whom a similar practice prevailed, but in their case a man having eaten of the fungus proceeded to drink his own urine.

#### THE NEW ENTRIES AT THE MEDICAL SCHOOLS.

FROM information which we have received through the courtesy of the deans of some of the metropolitan medical schools it would appear that there may possibly be a falling off in the number of new entries for the full course of medical study. In one case there is a slight increase in students entered for special courses and in another the number of students "entered for partial study, especially in anatomy and physiology, is unprecedentedly large." It is, of course, too soon after the commencement of the winter session to give any precise figures, but this we hope to do as soon as the entries are completed.

#### THE INCIDENCE OF EXPENSE IN ILLNESS.

AN action arising out of a case of typhoid fever was recently heard in the Birmingham County Court in which the plaintiff, a pawnbroker, sued the defendant, a school-mistress. The defendant had visited the plaintiff some years ago, bringing with her a servant who was distantly related to both parties. In the plaintiff's house the defendant's servant developed typhoid fever and was kept there until she was well. The defendant paid the medical man who attended the case, but denied any liability to pay for anything beyond this, and the plaintiff, who had taken in the servant's mother who came to nurse her, bought stimulants ordered for the patient and incurred the outlay incidental to disinfection, now sued for repayment. There was evidence corroborating that of the plaintiff, to the effect that the defendant had undertaken to be responsible for the expenses incurred beyond the medical attendance and the case was finally settled by the defendant making a payment the amount of which was not stated in court. It is not easy to define in a few words the precise legal position of the parties in such a case, but the master of a servant would hardly in such circumstances refuse to compensate his host if asked to do so, and as a matter of justice few will deny that he ought to be made to do so should he refuse. Beyond this, a guest, we should say, is not bound to pay for disinfecting his host's house after the servant of the guest has been laid up in it with an infectious illness, nor is he bound to pay for the board and lodging supplied to his servant as long as his invitation holds good. In the case, however, of a long illness it is almost inevitable that some discussion should take place between host and guest and that some undertaking should be given as to what is to happen eventually if they are in such a financial position that the expenditure involved is a matter of any importance to them, and we have little doubt that such a discussion did, in fact, take place in the case referred to. In the almost inconceivable case of a guest then and there disclaiming all future liability for his servant the host could, we imagine, terminate the visit, with

the result that the guest would be liable to pay for the keep of his helpless servant to the same extent that he would be were the servant lying in his master's house. He could possibly give his servant a month's notice, although humanity would forbid such a step, but would not be entitled to discharge him. Humanity, as a rule, without appeal to the letter of the law settles the course that masters and mistresses adopt when their servants are afflicted with serious illness.

#### SMALL-POX IN LONDON.

IN THE LANCET of Sept. 21st, p. 826, we mentioned that the Rev. Richard Wilson, curate of St. Augustine's, Stepney, was actively encouraging vaccination among hop-pickers in Kent and had proved his sincerity by being himself revaccinated at a village frequented by hop-pickers. Another London clergyman has taken the same method of showing confidence in the protection thus afforded. The Rev. W. D. Sweeting, vicar of Holy Trinity, Rotherhithe, and the other managers of the National Schools in Rotherhithe, had the schools visited by the public vaccinator on Oct. 1st, when the vicar was first revaccinated in presence of the boys, and then 29 boys were vaccinated or revaccinated. The Council of Almoners of Christ's Hospital have decided, in view of the present outbreak of small-pox in London, that all boys in that school who have not been vaccinated or revaccinated within the last seven years shall be forthwith revaccinated with calf lymph by the medical officer. The question of the condition as to vaccination of children attending board schools continues to receive much attention. At a meeting of the Hackney Board of Guardians held on Oct. 2nd, for the purpose of considering a circular letter from the Local Government Board with reference to the spread of small-pox, the clerk said that it was no part of the duty of the vaccination officers to visit board schools and after some discussion the matter was adjourned *sine die*. At a meeting of the Southwark Borough Council held on Oct. 2nd Mr. G. Millson, the medical officer advised that the London School Board should be asked to grant permission for the vaccination officers to visit the schools in the borough and to examine the children, and it was agreed that the matter should be discussed in committee. As already mentioned in THE LANCET of Sept. 28th, p. 859, the School Board for London have announced that facilities will be given to the public vaccination officers, on the application of the proper local authority, to examine the children in the schools with a view to advising the parents to allow their children to be vaccinated, provided that the parents in each case raise no objection to such examination being made. At a meeting of the School Board held on Oct. 3rd a letter from the Local Government Board was read expressing the opinion that it would have been more satisfactory if the school board had not empowered parents to refuse to have their children examined. The Mile-end guardians have declined to take action in regard to a letter from the Local Government Board pointing out the steps requisite to be taken during the prevalence of small-pox. The epidemic extension of small-pox coincidently with the usual seasonal prevalence of scarlet fever and diphtheria threatens to require all the accommodation available in the metropolitan infectious hospitals. With the view of reducing pressure the authorities of the Metropolitan Hospital have offered to the Asylums Board the use of two wards, containing 24 and 12 beds respectively, for enteric fever cases for a period of four months certain, an offer which has been accepted. The Asylums Board have decided to inclose a cemetery at Joyce Green for the interment of patients who have died from small-pox. On Tuesday, Oct. 8th, there were 171 patients in the metropolitan small-pox hospital ships and the shelters on shore; 51 new cases were

admitted to these hospitals, and three deaths were registered in London during the week ended on Oct. 5th. As is well known, mild cases of modified small-pox are sometimes supposed to be varicella (chicken-pox). With the view of meeting this difficulty the Corporation of London, as the sanitary authority of the Port of London, have given notice that the provisions of the Public Health (London) Act, 1891, with respect to infectious diseases shall apply in the port to chicken-pox from Oct. 25th until the close of the year. The St. Pancras Borough Council have also made chicken-pox a notifiable disease for six months, beginning from Oct. 12th.

#### MEDICAL OFFICERS IN THE HIGHLANDS AND ISLANDS.

THE *Glasgow Herald* of Oct. 4th contains the following advertisement:—

**Medical Officer and Public Vaccinator wanted** for the PARISH of STRATH, to take up duty not later than 19th December, 1901. The salary as Medical Officer and Public Vaccinator to be at the rate of £110 per annum. Other appointments may be made. There is a private practice in a population of about 2200. Gaelic a recommendation.—Further particulars can be had from Clerk to the Parish Council, Broadford, Skye, and applications to be lodged with the Chairman, Kilbride House, Broadford, Skye, not later than 23rd October, 1901.

The parish of Strath is extensive in point of area and has a population of about 2200. We learn that the "private practice" is of little value, while "the other appointments" are of little more than nominal value. We can only warn intending applicants to make very sure of three things—fixity of tenure, a free annual holiday, and an adequate salary. We do not consider £110 adequate.

#### THE LONDON HOSPITAL LODGE OF FREEMASONS.

THE London Hospital Lodge of Freemasons, No. 2845, was consecrated on Wednesday, Oct. 2nd, at the Hotel Cecil, Strand, London, by the Grand Secretary, V.W. Bro. Edward Letchworth, F.S.A., P.G.D. The occasion was in every way a notable one, a very large number of Freemasons connected medically or otherwise with hospitals being present. In the ceremony of consecration the Grand Secretary was assisted by the following Grand Officers: W. Bro. Clement Godson, M.D., P.G.D. (as S.W.), W. Bro. Alfred Cooper, F.R.C.S., P.G.D. (as J.W.), Rev. Sir Borrodale Savory, Bart. (Grand Chaplain), V.W. Bro. Frank Richardson, P.G.D. (as Director of Ceremonies), and W. Bro. H. W. Kiallmark, M.R.C.S., P.G.D. (as I.G.). The following is a list of the officers appointed: W. Bro. A. Ernest Sansom, M.D., F.R.C.P., Worshipful Master; Bro. Frederick Eve, F.R.C.S., Senior Warden; Bro. F. J. Smith, M.D., F.R.C.P., Junior Warden; Bro. T. Gilbert Smith, M.D., S.D.; Bro. R. J. Probyn-Williams, M.D., J.D.; Bro. Percy Furnivall, F.R.C.S., I.G.; Bro. T. H. Openshaw, F.R.C.S., Secretary; Bro. S. L. Martin, Treasurer; Bro. G. Schorstein, M.D., Steward; and Bro. G. F. Rogers, M.D., Director of Ceremonies. The founders of the lodge subsequently entertained the consecrating officers and their numerous other guests at a banquet. The Worshipful Master, in replying to the toast of his health, observed that the key-word of this lodge was Heartiness. The work of the senior well-wishers of the hospital in the forming of the lodge was rendered with the heartiest zeal, and the willing response of the juniors showed that a pressing want was supplied. The coöperation of the most representative Freemasons was accorded in a most generous and hearty manner. He desired to express his especial obligations to Bro. T. H. Openshaw, C.M.G., who was secretary of the lodge, and to Bro. Probyn-Williams, who had taken early steps with much energy in the severe work attending the formation of the lodge; but one and all worked heartily. The London Hospital is the fifth of the great metropolitan medical charities to attach to itself a masonic lodge, its predecessors being St. Bartholomew's (Raheere), St. Mary's

(Sancta Maria), Middlesex (Middlesex Hospital), and Charing Cross (Chère Reine), whilst, as announced in another column, St. Thomas's will shortly add to the list a lodge to be called the Cheselden. The West London Hospital also has a lodge named the Cavendish, and we must by no means omit to mention the Æsculapius, which is not a hospital but a purely medical lodge and, we understand, enjoys much success. We wish the London Hospital Lodge a prosperous and useful career. The first Worshipful Master, Dr. Sansom, a well-known and esteemed member of our profession, is equally well known and esteemed in the masonic world, and under his experienced guidance the lodge starts with the best of auspices.

#### THE RÔLE OF SYPHILIS, ALCOHOLISM, AND UNHEALTHY OCCUPATIONS OF THE PARENTS IN THE ETIOLOGY OF IDIOCY.

In a brief but important communication to the French Congress of Alienists and Neurologists made by Dr. Bourneville of the Bicêtre, Paris, and published in the *Revue Neurologique* of August 30th, it is stated that out of a total of 2072 boys suffering from chronic diseases of the nervous system (idiocy, imbecility, epilepsy, and various paralyses) the presence of hereditary syphilis was ascertained in 20 cases, or about 1 per cent. Among 482 girls there were only two cases of hereditary syphilis, or 0.2 per cent. Alcoholism, on the other hand, was a more prolific cause of disease, its presence being traced in over 40 per cent. of the cases. Thus of the total number of patients, both male and female, the family histories showed that in 36.5 per cent. of the cases alcoholic intemperance was present in the father and in 3.0 per cent. in the mother, while in the rest—viz., 1.5 per cent.—it was found in both parents. Among the unhealthy occupations in which the parents of the patients were engaged were the making of phosphorus matches, working in copper and in mercury, and especially the manufacture of white lead.

#### THE MEMORIAL TO SIR THOMAS BROWNE.

For some little time past a scheme has been on foot for the erection of a memorial to that bright ornament of the medical profession, Sir Thomas Browne. The memorial is to take the form of a statue to be erected in Browne's native city of Norwich, and in our issue of March 2nd, 1901, p. 649, we were enabled to announce that a sum of over £600 had already been received towards the expense of the statue. A correspondent now informs us that he has heard that a sum of between £300 and £400 is still wanting. The Royal College of Physicians of London have voted a subscription, but comparatively few of the members of the medical profession have individually supported the movement. This is not as it should be. In our issue of Jan. 12th, 1901, p. 113, we commented upon the action of Colchester, or rather the medical men of Colchester, in erecting a memorial to the memory of William Gilbert who laid the foundations of the science of magneto-electricity. We there pointed out how few memorials of our great men of science were to be found in this country and urged the medical profession as well as other members of the body politic to follow the example set by the medical profession of Colchester. Sir Thomas Browne comes perhaps in a different category to Gilbert, Sydenham, or Harvey. He did no great scientific work, so far as we know, but it is on record that "he was much resorted to for his skill in physic." He lived a quiet unostentatious life and did good by stealth. He was not free from the faults of his age and believed in the burning of witches. But despite this he was not unduly credulous, as his treatise "Pseudodoxia Epidemica" very well shows. In an age when religious

differences were very bitter he maintained a most tolerant mind. He was an earnest Churchman, a good friend, and one always ready to succour his neighbour, while by his writings he has enriched English literature with treasures which will be a possession for ever. Certain passages in the "Hydriotaphia," in the "Letter to a Friend," and in the "Religio Medici" have a music and majesty of diction which can be perhaps only paralleled by portions of the Prayer-book or the Authorised Version of the Bible. There are, we know only too well, many calls on our purses. Obligatory claims such as rates and taxes are more pressing than ever and coincidentally many charities are suffering. But the sum required is not large. If every practitioner in England alone were to give but 1s. respectively twice the money required would be raised. It is not too much to hope that many of us could afford 10 or even 20 times 1s. Subscriptions may be sent to Mr. Frederic R. Eaton, King-street House, Upper King-street, Norwich, who is the honorary secretary of the memorial fund.

#### NEW LIVERPOOL ANTI-MALARIA CAMPAIGN ON THE GOLD COAST.

OWING to the generosity of a philanthropic merchant who desires to keep his name private, and to promises of assistance made to Major Ronald Ross by His Excellency Major Nathan, C.M.S., Governor of the Gold Coast, the Liverpool School of Tropical Medicine is immediately sending out Dr. Charles Balfour Stewart to undertake a campaign against malaria in that colony. He will proceed first to Sierra Leone in order to study the methods now being employed there with such success by Dr. Logan Taylor, to which we refer in another column, and will first attack the disease in the town of Cape Coast Castle, where, according to many reports, there is at present a considerable mortality among Europeans. Dr. Balfour Stewart will have full charge, under Major Ross's general direction, of the operations on the Gold Coast, and will probably be soon furnished with assistants. The line he will no doubt adopt will be that of drainage of the ground and clearing out broken vessels of water from the houses by means of large gangs of workmen, as has been done in Freetown. He is engaged for one year, but will probably remain as long as his services are needed for the great work which he is called upon to conduct in this rising and already important colony. He will shortly be able to pay special attention to the gold-mines, but his movements will be largely determined by the wishes of the Governor. Anti-malaria operations will thus shortly be in full swing all down the coast from the Gambia to Lagos—three of the colonies being dealt with by the Liverpool School of Tropical Medicine.

#### THE FIFTH INTERNATIONAL CONGRESS OF PHYSIOLOGISTS.

THIS Congress was held at Turin from Sept. 17th to the 21st. The attendance was large—more than double that of any of the previous meetings. The inaugural address was delivered to an audience of more than 200 members by the President, Professor Angelo Mosso of Turin, who proposed that the Congress as its first duty should appoint Sir Michael Foster of Cambridge honorary life president in recognition of the important share which he had taken in the foundation of International Congresses of Physiology. This proposal was, as we have already recorded, carried unanimously, as was likewise Professor Kronecker's that a bronze plaque with a suitable inscription expressive of their grateful acknowledgments of his services should be presented to Sir Michael Foster. It was also resolved to send a telegram to the Queen Mother in the name of physiologists of all nations thanking her for the impulse given to the study of human physiology through the

construction at her initiative of the physiological laboratory on the top of Monte Rosa. Another telegram was despatched to the Minister of Public Instruction, Signor Nasi, thanking him for a subsidy which he had granted towards the organisation of the same laboratory. The scientific communications presented to the Congress were so many that those actually read had to be cut down to about one-half of the total number. The real business began on the second day of the meeting. Amongst the most interesting and well received of the papers contributed on that day were those of Professor Langley of Cambridge and Professor Sherrington of Liverpool, the former being on the Action of the Inhibitory Cardiac Fibres of the Vagus, the latter on the Comparative Excitability of the Cerebral Cortex in Monkeys and in Anthropoid Apes, a short abstract of which appeared in our issue of Oct. 5th. On the third day Mr. W. M. Bayliss of London demonstrated certain new and remarkable facts which he had observed in regard to the functions of the posterior spinal nerve roots in the production of vascular dilatation. Professor Langley on the same day gave another important demonstration regarding the action of nicotine on the substance of nerve ganglia, and Dr. Waller of London exhibited numerous photographs illustrating the electro-motor phenomena in various organs (the skin, the eye, and the electric organ of fishes), tending to show that every living tissue has the property of developing an electric current capable of detection by the galvanometer. Various experiments were shown in confirmation of the theory. During this day's sitting the presentation to Sir Michael Foster of the commemorative plaque was made amidst much enthusiasm. On the fourth and last day Dr. Locke of London aroused much interest by a beautiful demonstration of a method of keeping alive a rabbit's heart after its removal from the body by means of an artificial circulation through the cardiac vessels. It would occupy too much space to refer to the many other communications of equal importance by physiologists of other nationalities, and we have therefore spoken only of the English contributions. For scientific results this Congress will compare favourably with any of its predecessors, while for the interest of its proceedings it will stand out before all of them on account of the remarkable number of practical demonstrations and experiments with which each paper was illustrated. Among the social attractions of the Congress were a banquet, with the usual long toast and speech list, and a reception at the Communal Palace by the Syndic of Turin.

#### PROGRESS OF THE ANTI-MOSQUITO CAMPAIGN IN SIERRA LEONE.

DR. LOGAN TAYLOR, now carrying on operations against mosquitoes in Freetown on behalf of the Liverpool School of Tropical Medicine, reports on Sept. 17th that from the beginning of the work 6500 houses have been cleared of broken bottles, tins, calabashes, and the like, in which culex mosquitoes breed. Drainage operations against anopheles mosquitoes are also being pushed as much as the rain will allow. He adds: "I think there is no doubt but that the number of anopheles in the streets which we have dealt with is diminished. The people resident in the streets will tell you that at once. The number of pots and tins removed has made a considerable diminution in the culex." Dr. Taylor does not mention the number of cartloads of pots and tins removed, but from previous averages it may be put at something like 1300. Considering that the work had been in progress at the date of report for little over two months and has been much impeded by floods of rain the results are already very satisfactory. In addition to 50 other men two men are specially employed to look constantly after the centre of the town, where the offices, warehouses, and European houses are. The Governor, Sir Charles King,

Harman, is giving every assistance. Dr. C. W. Daniels, of the London School of Tropical Medicine, who has been studying Dr. Taylor's work at Freetown and has now returned to England, says in a letter to Major Ross: "In my opinion already your efforts have been crowned with a large degree of success, as there has been a noteworthy diminution in the number of the first two genera of mosquitoes (anopheles and a kind of culex) found in the houses. The number of breeding-grounds has been enormously diminished."

#### THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Cape of Good Hope received at the Colonial Office on Oct. 2nd states that for the week ending Sept. 28th there was but one case of plague reported in Cape Colony, that of a person in the class of those under naval and military control—namely, a native in the remount camps at Port Elizabeth. There was 1 death, that of a native at Port Elizabeth. The area of infection remains unchanged. As regards the Mauritius a telegram from the Governor received at the Colonial Office on Oct. 4th states that for the week ending Oct. 3rd there were 54 cases of plague and 36 deaths. As regards Egypt, during the week ending Sept. 29th 4 cases of plague and 1 death from the disease have been reported from all Egypt. Of these cases 3 occurred among Europeans and 1 case and 1 death among the natives. From Alexandria 3 cases and 1 death were reported, and from Port Said 1 case.

#### ELIGIBLE BUILDING SITES!

THE conditions which apparently are responsible for the outbreak of scarlet fever in the Horton Grange district of Bradford are not without parallel elsewhere, while they show that the attention of local authorities when directed to new buildings erected in their districts should not be confined to the details of the structures to be erected. Dr. W. A. Evans, the medical officer of health of Bradford, has informed the Health Committee of the corporation that the outbreak is, in his opinion, due to what a head-line in a local newspaper describes as the "tipping system." This term does not refer to any alleged venality on the part of the sanitary authority, but describes a method resorted to for filling up depressions in ground which is destined to be built upon. We are most of us familiar with the aspect of these depressions, for we can hardly leave London and other large centres of population without seeing them from the railway-carriage window as we travel through the suburbs, and the method of filling them up which has prevailed at Bradford is not confined to that town. The depressions have usually been caused by the digging of ballast for railways, of road-metal, or of clay for the making of bricks for new suburban buildings, and the method adopted to fill the depressions when more building land is required is that of "tipping" as they phrase it at Bradford, or of "dumping" as our American cousins would call it, ash-pit refuse from the neighbouring urban district into the hollows which are frequently of considerable depth. It is quite clear that ash-pit refuse, which, of course, does not consist only of ashes, is in itself about as unsuitable a soil to build dwelling-houses upon as could possibly be invented, and a second cause has been found to operate at Bradford to foster the spread of disease in such tenements, for ash-pit refuse naturally subsides unevenly under the weight of a house, with the result that drain-pipes are broken and displaced and the conditions for the inhabitants of the houses built upon refuse become even worse than before. We note that the Bradford Health Committee hope that the Cleansing Committee will discontinue the practice of tipping refuse in the neighbourhood and also hope that the Building Committee will insist upon precautions such as concrete floors

where refuse is built upon. It would be better, however, if the Bradford Corporation acting as a unanimous whole would embody the wisdom of its committees in measures for the disposal of refuse without tipping it into the Horton Grange or any other district, for concrete floors and foundations will merely partially protect the immediate neighbourhood of a house or cottage and will never make wholesome land out of the contents of scavengers' carts. Other methods of levelling such sites as those described will have to be adopted and the outbreak of scarlet fever at Bradford will have served a useful purpose if it proves a timely warning to local authorities there and elsewhere.

THE honorary secretaries of the Prince of Wales's Hospital Fund for London have received at the Bank of England the sum of 100 guineas from the King, who has been pleased to continue the annual subscription which His Majesty, as Prince of Wales, has hitherto contributed to this Fund.

AN address will be given by Mr. Thomas Bryant at Queen's Hospital, Birmingham, on Oct. 18th, at 4.30 P.M., on the occasion of the first distribution of clinical prizes since the University commenced work.

AT the quarterly meeting of the Directors of the Naval Medical Supplemental Fund held on Oct. 8th, Sir J. N. Dick, K.C.B., in the chair, the sum of £45 was distributed among the several applicants.

THE Harveian Oration will be delivered before the Royal College of Physicians of London on St. Luke's Day, Friday, Oct. 18th, at 4 P.M. by Dr. Norman Moore.

#### THE LATE AMIR OF AFGHANISTAN.

BY JOHN ALFRED GRAY, M.B. LOND.

THE report of the Amir's death has been officially confirmed; one may therefore accept it as true. So many times has his death been reported that one hesitated to accept the news as final till the official confirmation arrived. It is not that his death is an unexpected occurrence, but the news has been expected for so many years that one marvels that he has lived so long. I remember the last time I had the honour of attending His Highness during an illness, and I placed (in my own mind) his probable duration of life at two years; this was in 1890. I will endeavour to describe the condition that I found him in.

It was late one night in the autumn of 1890 that I was summoned hastily to the palace. There was a hammering at the gates of my courtyard which woke me, and immediately a servant came running to my room saying, "Up, Amir Sahib calls." One does not linger on these occasions. I found my horse saddled and bridled at the gate, and accompanied by the two horsemen who called me I rode off through the bazaars. The gleam of an occasional oil-lamp in the rain puddles made the darkness visible. Presently a clatter of hoofs showed my interpreter hurrying after us. This was satisfactory; for the two men might have been playing the part of "the Thing that walks by night," in which case I should not have been seen again. This happens at intervals in Kabul. We reached the palace, and leaving our horses at the gate hurried through the gardens to the Amir's pavilion.

I found His Highness lying on a couch, rolling his head from side to side and groaning. Malek, the favourite page-boy, was rubbing the right knee. The room was brilliantly lit with candles and around were kneeling Prince Habibullah and his brother and the chief officers of State. Receiving the Amir's command, I proceeded to examine into his condition. The right shoulder, elbow, wrist, and knee were swollen, red, and very painful. Every few minutes he was passing a few drops of scalding urine, his breathing was hurried, and his pulse quick and weak. His throat was sore and inflamed. There was a crepitant patch on the left axillary line. The heart was somewhat enlarged, but I heard no murmur. His

temperature, to the best of my recollection (for I am writing without notes), was 102.4° F. His urine was loaded with albumin and he had not slept for days. But this was not all. It appears that he had been ill for some weeks under the care of hakims. He had been treated with many violent purges, much leeching, and copious bleedings, and his gouty foot had been frequently plunged into ice-and-water to relieve the pain. Altogether his condition appeared to me serious—more than a little serious, for I was informed by those friendly to me that my life depended on his. I therefore considered what I should do. A lamp was brought and with a page-boy—the foster-brother of Prince Habibullah—I went to the hospital to get what drugs I needed. These were given into the charge of the lad. He was in future to be responsible for them and to give them out only to me.

To be brief, I gave His Highness diaphoretics with salicylate of potash, which I made fresh for every dose. His Highness, after the Mahomedan custom, uttered a short prayer before he took the first dose. I did also. The medicine had a most satisfactory effect in relieving the pain and procuring sleep. The improvement being so obvious it was interesting to note the delight of all, from prince to page-boy. I have a sheaf of letters of congratulation by me from the Sultana and Prince Habibullah, to whom I had every morning to send a report. The politeness and distinction with which I was treated by everyone may be imagined. But this was not the end. Towards the end of the week I gradually dropped the use of salicylate on account of its depressing effect and one night there was some return of pain.

There was a person at the Court—a Hindustani—who was unfriendly to me and he seized this opportunity of whispering to the Amir what he could that would prejudice me with His Highness, saying that I was giving him "shrab" in all his medicines which must inevitably make him worse in the end, and so on. The Amir was weak with long suffering—he had had a return of pain—and he believed this person. I was informed in the morning, five days after I took the case in hand, that my treatment would be suspended for the present. The hakims were reinstated. What can one do under circumstances so exasperating? The hakims knew no medicine or pathology; they were again in charge of a life on which mine hung and they were likely to terminate it. Reasoning would have no effect; my statements would not appeal to the Oriental mind. I decided, therefore, to accept the inevitable, but I thought that I would shoot that interfering person who was my enemy. I said so; and he kept out of my way. His interpreter, however, told me that I should lose caste by shooting one of low degree. I, of course, would not have shot him—one does not do such things in cold blood. At this time the Sultana was taken ill and I had the Amir's order to attend her in the harem serai. From Her Highness and the page Malek I heard how it was that I had been suspended.

To cut a long stay short—for even now I do not care to recall too vividly to my recollection the anxious weeks that followed—His Highness, after a period of considerable danger and suffering, during which I was allowed to watch his progress daily, made a tedious recovery, and I was permitted to return home on leave for some months bearing with me a substantial token of the Amir's goodwill.

I read that Prince Habibullah has the arsenal and treasury, and consequently the power, in his hands. It is a blessed thing for Afghanistan if it is so, and for England too, so far as I can judge. The death of the Commander-in-Chief, Gholam Hyder Khan, deprives the Sultana of her greatest supporter, so that the probability of a revolution in favour of her young son, Prince Mahomed Omer (who is Royal on both sides), is vastly lessened. This lady, however, is a source of probable danger to the peace of Afghanistan—that is, if she is still living.

Habibullah always struck me as a good fellow—intelligent, well-mannered, and distinctly favouring the English. He was learning English when I was in Kabul and could speak a little even then. He seemed a milder and smaller copy of the able, courteous, chivalrous, crafty, and fierce Prince, his father, whose strong personality had such a glamour that he attracted not only the respect, but even the affection, of us who were in his service. I have the recollection of many great kindnesses from my late Royal master (and of some injustices), and I wish his son the Prince Habibullah every success for the sake of his country and ours in the difficult and dangerous task before him.

Baling.

## Looking Back.

FROM

THE LANCET; SUNDAY, OCTOBER 12, 1823.

*Extract from a Surgical Lecture delivered by Sir ASTLEY COOPER, Bart., at St. Thomas's Hospital on Oct. 8th, 1823.*

The next subject is

INFLAMMATION. There are four signs that commonly attend it, viz. redness, pain, increased heat, and swelling.

First, redness. This arises from an increase of the red particles of blood in the part; this is particularly exemplified in the white of the eye during inflammation.

Second, swelling or tumour is owing to the greater determination of blood to the affected part; it is not altogether owing to this circumstance, but arises in a great measure from an effusion of serum into the cellular membrane; a portion of this coagulates; hence the hardness of the inflamed part.

Third, increased sensibility is owing to distension of the nerves. Parts naturally insensible are quite the reverse when in a state of inflammation. Sir Astley was called a short time since to a case where it was requisite to saw off a piece of bone; during the operation, he opened a cavity in which was a small piece of bone and a fungus; the latter was extremely sensitive; extract of belladonna applied to it gave instant ease. Bones, though destitute of sensation in their healthy state, are dreadfully painful when inflamed. It is exceedingly improper to perform operations upon parts when inflamed.

The fourth is increased heat.

Mr. Hunter denied this: he introduced a thermometer into the opening when operating for hydrocele, and it rose to 101; after 24 hours it was no more than 100. Though no increase of heat is evinced in internal inflammation, yet when the malady is on the surface of the body, an alteration of seven degrees takes place; as on the inside of the thigh, where a blister was applied, the thermometer rose to 90, while on the inside of the opposite thigh it only reached 83.

Inflammation has four terminations.

First, adhesion. This arises from coagulable lymph being thrown out into the cellular membrane, and the parts become glued together.

Second, suppuration, or secretion of matter. This is composed of particles nearly similar to those of the blood swimming in a fluid which supports them and this fluid coagulates.

The third is absorption or ulceration, which eventually arises from continued pressure, thereby allowing the escape of the extraneous body.

The fourth is the destruction of life. Enfeebled by excessive action, the blood towards the extremities becomes coagulated, and gangrene is formed.

The constitutional effects are similar to those of the disease mentioned in the last lecture.

The inflammation is healthy or unhealthy. No wound can be restored without the former: even the little wound made in bleeding would inevitably destroy life, were it not for this salutary principle. A slight inflammatory action throws out upon the edges of the wound adhesive lymph, by which the edges are permanently united.

When a ligature is put upon a large artery, unless inflammation supervened, it could not be of any use; the first thing nature does in this case is to form a clot of blood at that part of the vessel where it has been tied, inflammatory action taking place, adhesive matter is thrown out, and the plug of blood and internal coats of the artery become firmly glued together, so as to prevent the possibility of hemorrhage when the ligature comes off: should the constitution be in an unhealthy condition, however, this process would not be executed, so that upon the ligature's coming off, the person might die of hemorrhage. Spontaneous inflammation is generally unhealthy.

Sir Astley concluded by observing, that he had expected to have reached the subject of specific inflammation; but as there was not time, he would begin it on Monday next.

## THE ARMY AND INDIAN NURSING SERVICE.

MR. BRODRICK'S Committee appointed to consider the Reorganisation of the Army and Indian Nursing Service, consisting of the same members as the Committee on the Reorganisation of the Army Medical Services, has drawn up the following report :—

### SCHEME FOR THE REORGANISATION OF THE ARMY AND INDIAN NURSING SERVICE.

1. There shall be one Military Nursing Service for His Majesty's Army in the United Kingdom, India, and the Colonies, to be designated "Queen Alexandra's Imperial Military Nursing Service" (Q.A.I.M.N.S.). In this service shall be amalgamated the existing Army Nursing Service and the Indian Nursing Service.

2. Her Majesty Queen Alexandra shall be requested graciously to assume the presidency of this service.

3. The Nursing Service shall be under the immediate control of Her Majesty Queen Alexandra as president, and of a Nursing Board constituted as follows :—

President.—Her Majesty Queen Alexandra.

Chairman.—The Director-General, Army Medical Service, or an officer nominated by him.

Two members of the Advisory Board, Army Medical Service, of whom one shall be a civilian.

The Matron-in-Chief, Queen Alexandra's Imperial Military Nursing Service.

Three matrons of large civil hospitals with medical schools.

One representative of the India Office to be appointed by the Secretary of State for India.

Two members to be nominated by Her Majesty the President, and holding office for three years.

4. Upon this Nursing Board the civilian members of the Advisory Board, Army Medical Service, and the matrons of civil hospitals shall be appointed by the Crown, on the advice of the Secretary of State, and shall hold office for a period of three years, renewable on expiration of the term of appointment.

A matron of a civil hospital shall receive an honorarium of £26 5s. per annum while serving on the Board.

5. The Nursing Board, of which three shall form a quorum, shall usually meet at fortnightly intervals. The minutes of the proceedings of the Nursing Board shall be laid by the Matron-in-Chief before the Advisory Board. It shall be in the power of the Advisory Board to refer back any point to the Nursing Board for reconsideration, and in case of a divergence of opinion between the boards, the matter in question shall be referred to the Secretary of State.

6. Subject to the general control of the Advisory Board the Nursing Board shall be responsible for—

(1.) Advising the Secretary of State upon the strength of the nursing staff of various grades requisite in each military hospital (including the hospitals for women and children attached to military stations), having regard to the character of the cases admitted, and subject to the proviso that as a general rule hospitals containing fewer than 100 beds will not be provided with a regular female nursing staff (*vide* paragraph 14).

(2.) Defining the conditions under which nurses may enter the service, the terms of their appointment, and the duties to be performed in the several grades of the Nursing Service.

(3.) Dealing with all questions relating to the uniform and clothing allowance of the Nursing Service.

(4.) Receiving and considering reports from the Matron-in-Chief and the matrons of the various hospitals.

(5.) Recommending to the Commander-in-Chief, for the approval of the Secretary of State, the appointment, retention, promotion, retirement, dismissal, and distribution of the members of the Nursing Service.

(6.) Arranging for the selection and engagement of additional nurses, the organisation of the requisite nursing staff, and the appointment of principal matrons in case of war or epidemic.

(7.) Advising the Secretary of State upon the formation of the Nursing Reserve of the Queen Alexandra's Imperial Military Nursing Service.

(8.) Arranging for the periodical inspection of military hospitals as regards nursing efficiency.

(9.) Submitting to the Secretary of State, through the Advisory Board, a scheme for the organisation and development in India of the Queen Alexandra's Imperial Military Nursing Service, which shall allow for adequate local control, subject to the general authority of the Nursing Board.

7. The Queen Alexandra's Imperial Military Nursing Service shall consist of—

(1.) A Matron-in-Chief and Principal Matrons.

(2.) Matrons.

(3.) Sisters.

(4.) Nurses.

8. All matrons, sisters, and nurses of the Queen Alexandra's Imperial Military Nursing Service shall be entitled to wear an appropriate badge which, by special permission only of Her Majesty the President, may be retained by the wearer after leaving the service.

9. The Matron-in-Chief shall have a seat on the Advisory Board, acting as a member of the Board whenever matters concerning the Nursing Service are under discussion, and in her absence a principal matron shall take her duties.

10. The Matron-in-Chief shall be the medium of communication between the Director-General and the Queen Alexandra's Imperial Military Nursing Service, in all matters connected with that service.

11. The Matron-in-Chief shall be responsible for keeping the service records and confidential reports from the matrons of the various hospitals regarding the character, conduct, and efficiency of the sisters and nurses under their control.

12. The Matron-in-Chief shall keep herself acquainted with the administration of the nursing service in the various military hospitals.

13. She shall submit to the Nursing Board recommendations for the appointment, promotion, retirement, dismissal, and distribution of members of the service.

14. She shall be responsible for maintaining a sufficient staff of special nurses, detailing them for duty in cases of emergency, or for service in smaller hospitals.

15. She shall present every year to the Nursing Board a scheme for the annual leave of matrons and special nurses, and shall report to the Board the arrangements made by matrons for the annual leave of sisters and nurses.

16. Amongst the duties of a matron, to be defined in detail by the Nursing Board, shall be the following :—

(1.) To recommend suitable candidates for admission to the service in accordance with the prescribed regulations.

(2.) In conjunction with the medical officer in charge of the hospital to forward to the Matron-in-Chief such confidential reports with regard to the work and conduct of the nursing staff as may be required, and to make recommendations for retention, promotion, retirement, and dismissal.

(3.) To be responsible for the general nursing arrangements of the hospital, for the due performance of their duties by the sisters and nurses, and for the maintenance of good conduct, efficiency, and discipline amongst all members of the female nursing staff. In conjunction with the medical officer in charge of the hospital to report upon these matters at stated intervals to the Nursing Board through the Matron-in-Chief.

(4.) To exercise similar functions as regards the hospital for women and children in a station where such hospital exists.

(5.) In urgent cases to provide, where practicable, for the nursing of women and children on the married establishment.

(6.) To engage and dismiss the female servants appointed to attend upon the nursing staff, and to be responsible for their discipline, good conduct, and efficiency.

(7.) To undertake the daily inspection of the nurses' quarters to ensure that they are clean, well ventilated, and kept in good order.

(8.) To be responsible to the medical officer in charge of the hospital for sufficient supply, good condition, and cleanliness of the bedding and linen in the nurses' quarters and the wards under her nursing charge.

(9.) To see that proper medical and nursing attendance is

provided without delay for sick members of the nursing or female domestic staff.

- (10.) To arrange the annual leave of sisters, nurses, and female domestic staff, reporting thereon to the Matron-in-Chief.

17. A principal medical officer shall report annually to the Nursing Board, through the general officer commanding, upon the conduct and efficiency of the matrons of hospitals within his district.

18. Amongst the duties of a sister in charge of a ward, to be defined in detail by the Nursing Board, shall be the following:—

- (1.) To be responsible for the cleanliness, ventilation, and good order of her ward and its annexes.
- (2.) To attend the medical officers in their visits to the ward, and carefully to carry out their orders with regard to the diet and treatment of patients.
- (3.) To see that the nurses and orderlies perform their duties punctually and efficiently, reporting any breach of discipline or neglect of duty on the part of a nurse to the matron, and on the part of an orderly to the medical officer in charge of the ward, or in his absence to a warrant or non-commissioned officer of the Royal Army Medical Corps.
- (4.) To take part in the nursing of all patients seriously ill.
- (6.) To be responsible to the matron and medical officer of the ward for sufficient supply, good condition, and cleanliness of the bedding and linen, and for the personal cleanliness of the patients.

19. Amongst the conditions under which nurses may enter the service, and the terms of their appointment (to be defined in detail by the Nursing Board) are the following:—

- (1.) A candidate must be of British parentage, be between 25 and 35 years of age, and possess a certificate of not less than three years' training and service in medical and surgical nursing in a civil hospital recognised by the Advisory Board. She shall be required to satisfy the Nursing Board that as regards education, character, and social status she is a fit person to be admitted to the Queen Alexandra's Imperial Military Nursing Service.
- (2.) If provisionally accepted she shall be placed on probation for a period of three months, at the end of which time, if her work and conduct are reported to be satisfactory by the matron of the hospital, she may, after having been medically examined, enter into an agreement binding herself to three years' service in the Queen Alexandra's Imperial Military Nursing Service and undertaking to conform to the rules and regulations of the service. The agreement shall be dated from the time at which the nurse was provisionally accepted, and may, on the recommendation of the Commander-in-Chief, be terminated at any time by three months' notice from the Secretary of State, or in case of grave breach of discipline or misconduct, without notice.

- (3.) On the expiration of her three years' term of service a nurse may be permitted—

(a.) To retire from the service.

(b.) To continue in the service as a staff nurse, with an agreement terminable at any time by one month's notice on either side.

(c.) To join the staff of special nurses under the orders of the Matron-in-Chief, with an agreement terminable at any time by one month's notice on either side.

(d.) To offer herself for promotion to the post of sister, undertaking to serve for at least one year, and afterwards under an agreement terminable at any time by one month's notice on either side.

(e.) To enter into a fresh agreement for service as nurse or sister in India, or elsewhere abroad, for a period of three or five years, according to climate.

20. All present members of the Army and Indian Nursing Service, and members of the Army Nursing Reserve who have been in military employment during the war in South Africa, shall be eligible for appointment in the Queen Alexandra's Imperial Military Nursing Service if recommended by the Nursing Board. Should any question arise as to their status in the Queen Alexandra's Imperial Military Nursing Service the Nursing Board shall report thereon to the Advisory Board, and the recommendation of the Advisory Board shall be submitted to the Commander-in-Chief, whose decision shall be final.

21. Any present member of the existing services who is

not retained in the Queen Alexandra's Imperial Military Nursing Service may be recommended for a gratuity of one month's pay for each year of service, if she is not entitled to a pension; and any member who may decline to accept the new terms of employment shall be allowed to serve upon the terms of her present engagement.

## 22. PAY.

### (a.) Nursing Staff—

Matron-in-Chief, £250 a year, rising by annual increments of £10 to £300, and lodging allowance.

Principal matron in India, £230 a year, rising by annual increments of £10 to £280, and lodging allowance.

Principal matrons, £110 a year, rising by annual increments of £5 to £160.

Matrons, according to size of hospital, £70 to £100 a year, rising by annual increments of £5 to £120 to £150.

Sisters, £37 10s. a year, rising by annual increments of £2 10s. to £50.

Nurses, £25 a year, rising by annual increments of £2 10s. to £35.

### (b.) Female servants—

£15 a year, rising by annual increments of £1 to £20.

## 23. ALLOWANCES.

### (a.) Nursing Staff—

Home station, board and washing, 15s. a week.

Station abroad, board and washing, 21s. a week.

Station abroad, washing, 3s. 6d. a week.

Home station, uniform, £6 per annum.

Station abroad, uniform, £7 per annum.

Home and abroad, cloaks, £2 per annum.

### (b.) Female servants—

Board and washing, 10s. 6d. a week.

24. Allowances at the recognised scale shall be given for Indian and Colonial service.

25. The regular annual leave of members of the Queen Alexandra's Imperial Military Nursing Service in home stations shall be as follows:—

Matrons, six weeks.

Sisters, five weeks.

Nurses, four weeks.

Leave at stations abroad shall be granted on the military system.

26. It is desirable that all members of the Queen Alexandra's Imperial Military Nursing Service should be eligible to apply for a pension at the age of 50 years, and should be retired at the age of 55 years. Rates of pension shall be according to the scale laid down in Article 1233, Royal Warrant for Pay and Promotion.

ST. JOHN BRODRICK.

E. W. D. WARD.

G. DE C. MORTON, Major-General.

JAMES WILLCOCKS, Colonel.

FREDERICK TREVES.

WILLIAM THOMSON.

W. R. HOOPER, Surgeon-General.

G. H. MAKINS.

HOWARD H. TOOTH.

ALFRED D. FRIPP.

ALFRED KEOGH, Lieutenant-Colonel, R.A.M.C.

ALEX. OGSTON.

E. C. PERRY.

H. E. R. JAMES, Major, R.A.M.C., Secretary.

## MEDICAL SCHOOL DINNERS.

*King's College Hospital.*—The annual dinner of the old students of King's College Hospital was held at the Hotel Cecil on the evening of Oct. 1st, the day on which the medical session was opened. The occasion was distinguished by the fact that an unusually large number of the senior old students were present. These included the chairman, Mr. Paul Swain of Plymouth, Mr. Christopher Heath, Colonel H. Cayley, I.M.S., C.M.G., Mr. Wharton P. Hood, Dr. A. B. Duffin, and many others who have gained a high position in practice. It was the fiftieth anniversary of the day upon which Dr. Duffin (who has recently retired from the staff of the hospital) entered King's College as a student, a circumstance which greatly attracted his friends and contemporaries to the dinner. The Rev. Henry Wace, D.D., the late Principal

of King's College, and the Rev. A. Robertson, the present Principal, were also present, and among the old students of more recent years were Sir John Alexander Cockburn, K.C.M.G., and Captain C. Vipan, D.S.O., gentlemen who have abandoned the practice of medicine and gained distinction in other fields, the former as a statesman in Australia and the latter as a combatant officer with the 3rd Buffs in South Africa. The members of the present staff of the hospital were nearly all present, while one or two of the old students had become qualified during the present year. In his speech the chairman alluded to the great past of King's College Hospital, as proved by the fact that each of the following old students, Mr. Christopher Heath, Mr. G. Lawson, Mr. N. C. Macnamara, Mr. W. Rose, and Mr. A. B. Barrow, is now senior surgeon to a London hospital, and as evidence that the eminence of the present staff is equal to that of their predecessors he mentioned the distinction of C.B. which has just been conferred on Mr. Watson Cheyne and Mr. G. Lenthall Cheate for their work in South Africa, and that Dr. G. F. Still has been appointed Gulstonian Lecturer at the Royal College of Physicians of London.

**Middlesex Hospital.**—On Oct. 1st, at the Trocadéro Restaurant, Piccadilly, a large and enthusiastic gathering of the past and present students of this institution was held. Of about 200 guests who accepted the invitation of the school council 174 were actually present. The chair was taken by Mr. J. Bland-Sutton who was supported by Lord Howard de Walden, who had distributed the prizes in the afternoon, and also by Alderman Sir William Treloar. After the loyal toasts had been honoured the toast of "The Services" was responded to by Lord Howard de Walden, who had taken an active part in the South African campaign, including the relief of Kimberley and subsequent operations. His Lordship spoke in high praise of the magnificent pluck and stoical endurance of the British soldier and the ever-ready skill and resourcefulness of the medical department. In speaking of the Middlesex Hospital and Medical School the chairman alluded with warm approval to the energy and grasp of modern requirements evinced by the Weekly Board and School Council in the equipment, maintenance, and extension of the hospital and school. This was emphasised in detail by the replies of Mr. G. B. Hudson, M.P., and the Dean. The former dwelt in his speech upon the recent opening of the new wing for the treatment and investigation of cancer and the enlargement of the wards in the north-east portion of the hospital. The Dean, though deploring the falling-off in the number of students which affected most, if not all, the London medical schools, congratulated those present on the quality of the men now turned out, alluding to the greater number attaining the higher degrees and recording the attainment of gold medals in medicine and anatomy in London University in the past year. The toast of "The Past and Present Students" was responded to by Mr. John Aekery, President of the Odontological Society of Great Britain, and by Mr. T. W. Scott, the senior Broderip Scholar of the year. The toast of "The Visitors" was proposed by Dr. William Duncan and responded to by Mr. Wilhelm Ganz who, with the assistance of Señor Guetary and Herr Kolni-Balozky, rendered an exquisite musical programme which added greatly to the success of the evening. The proceedings closed with the proposal of the Chairman's health by Dr. Sidney Coupland who alluded to his successive attainments in anatomy, morphology, and pathology.

**St. Mary's Hospital Annual Dinner.**—The St. Mary's Hospital annual dinner took place on Oct. 3rd in the Whitehall Rooms of the Hôtel Métropole. The guests of the evening were those members of the hospital, some 24 in number, who have recently returned from service in the South African war, and nearly 200 of the past and present students were there to do them honour. The chair was taken by Brigade-Surgeon-Lieutenant-Colonel A. B. R. Myers, who was supported by Sir William Broadbent, Mr. Edmund Owen, Mr. Herbert Page, Dr. D. B. Lees, Mr. G. A. Critchett, Mr. G. P. Field, Mr. H. E. Juler, Dr. M. Handfield-Jones, Mr. J. Ernest Lane, Mr. H. G. Plimmer, and Dr. H. A. Caley. The toasts of "The King" and then of "Queen Alexandra, the Duke and Duchess of York, and the rest of the Royal Family" were proposed by the Chairman in a few well-chosen words and were duly honoured. Mr. Page, who met with a great welcome, then proposed the toast of "The Imperial Forces." He remarked that this was the first occasion on which he had given the greater toast of "The Imperial Forces"; hitherto

it had always been "The Navy, Army, and Auxiliary Forces." This signalled a new phase in the expansion of our empire, the union of men of every country under one King. He referred with approbation to the new scheme for the reform of the Royal Army Medical Corps and declared that the medical schools must do their part: there must be no more boycotting of the service. St. Mary's, he said, had sent of her best to South Africa, and it was a great pleasure to him to propose the toast.—Fleet-Surgeon T. J. Preston responded for the Navy, Lieutenant-Colonel G. M. Giles, I.M.S., for the Army, and Mr. H. Stansfield Collier, V.M.S.C., for the Auxiliary Forces.—The Chairman then proposed the toast of "Prosperity to St. Mary's Hospital Medical School." He alluded to the honoured names of former members of the hospital staff and paid a graceful tribute to the exertions of Sir William Broadbent and Mr. Field on behalf of the school. He complimented the present staff on their success as teachers, and the students of to-day both on their achievement in the examination hall and on their prowess in the athletic field.—The Dean (Dr. Caley) responded for the school, and alluding to the effort on foot to complete the Clarence wing said that the board of management looked forward with every confidence to an early consummation of their endeavours. He also spoke in hopeful terms of the negotiations now in progress to provide a sports ground for the students.—Mr. Owen, in a characteristic speech, gave the health of those who had served in South Africa and paid an eloquent tribute to those who had fallen.—Thanks were returned by Mr. Wallace Ashdowne, surgeon to the Imperial Yeomanry Base Hospital; Mr. V. Warren Low, civil surgeon; and Mr. E. L. Jenkins, one of the dressers of the Welsh Hospital. A most successful evening was brought to a close by the toast of the health of the Chairman which was given by Sir William Broadbent and drunk with great enthusiasm.

(To be continued.)

## THE ANNUAL REPORT OF THE CHIEF INSPECTOR OF FACTORIES AND WORKSHOPS FOR THE YEAR 1900.

### SECOND NOTICE.<sup>1</sup>

ATTENTION has been directed to a curious practice which has sprung up amongst the manufacturers of textile fabrics by which they habitually defrauded their workpeople by paying them for a smaller quantity of work than that which they actually performed. In this case we were glad to be able to record the fact that by means of a statutory provision specially passed for the purpose this nefarious custom has been practically abolished. At the present time, however, it appears that the workmen in many cotton-mills suffer greatly from the dishonesty of their employers, who exact from them an amount of work considerably in excess of that for which they are actually engaged. Two inspectors, Mr. Crabtree of Oldham and Mr. Dodgson of Bury, call attention to this matter. The practice is an old one in the cotton trade, for Mr. Crabtree himself when a boy 30 years ago was subjected to the treatment. He points out, however, that the custom has become more general and that at the present time "nearly every cotton-mill cribs time." "Time-cribbing" is a well-known expression in the districts of Oldham and of Rochdale. The method adopted by the manufacturers is thus described: "In these defaulting factories the manufacturing process too often begins at 5.30 to 5.55 A.M., continues to 8.5 A.M., is resumed at 8.25 A.M., and stops at 12.35 to 12.37 P.M.; it begins again at 1.25 P.M., and continues to 5.35 P.M. There is thus over 30 minutes deliberate illegal overtime put in on each of five days in the week, and about 15 minutes on Saturday, or about 160 minutes per week. That is to say, the day hands in these factories have to work two and a half hours per week more than should be demanded of them, and for this illegal demand they do not even receive the recognition of payment." Mr. Dodgson says that the evil is almost entirely confined to the cotton factories and that in the Rochdale district the manufacturers of cotton fabrics are greater offenders than the spinners of yarns. In commenting on these reports Mr. H. S. Richmond,

<sup>1</sup> The first notice appeared in THE LANCET of Sept. 28th, 1901, p. 868.

His Majesty's superintending inspector of factories for the North-Western Division of England, suggests that the duties of inspectors would be simplified and the practice of time-stealing reduced if a fixed and substantial penalty could be exacted should the main engines be set to work before, or allowed to run after, the legal hours. In favour of this proposal he points out that "the engine-house is usually more accessible than the factory itself and the fact of its running more easy of proof than illegal work by individual hands." The matter appears to deserve the attention of the Chief Inspector. The present state of things seems to be most iniquitous. It is difficult at first sight to see why it cannot be remedied, but Mr. Dodgson's report contains this cryptic sentence "It [the evil] is difficult to detect because the whole community where it prevails is favourable to it." It is not easy to understand how those members of the community whose time is stolen (or "cribbed") without the "recognition of payment" can really be in favour of such a practice.

The report of the medical inspector (Dr. T. M. Legge) contains a table showing the number of cases of poisoning from lead which were notified. In this table the statistics for the last three years are given. The number of cases of lead-poisoning reported in the year 1898 amounted to 1278, in 1899 to 1258, and in 1900 to 1058. These figures, the medical inspector points out, are strictly comparable. Second notifications of persons already included in the return within the preceding 12 months are not regarded as fresh cases. In the year 1900 53 second notifications were made in the case of people who had been previously reported. In the year 1899 there were 52 such instances. The object of notification of "industrial lead-poisoning" is the subject of a memorandum by Dr. Whitelegge (Appendix 17, p. 119). This memorandum was issued in March, 1900, and is supplementary to one issued in December, 1898. It deals with the manner in which cases occurring in house painters and plumbers should be treated by the Home Office inspectors for statistical purposes and with the way in which recurring attacks of lead-poisoning should be notified. The object of notification is to obtain a clue to those conditions which are not only prejudicial to health but which are also conditions over which the factory inspectors can exercise control. Under the present law only those cases which occur from the effects of labour carried out in a factory or workshop are of interest to the inspectors, for the Home Office has no power beyond these limits. Lead-poisoning contracted in the course of any business which is not under the control of the Factory Acts obviously cannot, therefore, be dealt with under those Acts. Dr. Whitelegge justly points out that in the present circumstances it would be practically useless for such cases to be reported as any reports of the kind being non-statutory would be incomplete and would therefore have but little statistical value. The conditions under which the notification of lead-poisoning should be made are briefly that in the opinion of the medical practitioner (1) the patient is suffering from the disease and (2) that it was contracted in a workshop. In regard to the first of these points it may be well to mention that patients have been reported as suffering from lead-poisoning when the only sign pointing to the disorder has been the presence of a blue line on the gums. The question as to whether lead-poisoning was or was not contracted in a factory or workshop has frequently given rise to difficulty and to the expenditure of much time. The best example of such a case is that of a house painter. In the case of any ordinary journeyman the difficulty of course does not arise, for he is outside the protection of the Home Office. But if a house painter should spend part of his time in a factory or workshop, and is occupied in such work as the grinding of lead or of pigments, or in mixing lead paints, he immediately comes under the care of the Home Office and "the question may legitimately arise whether his case does not become reportable, seeing that the risk, though in minor degree, is incurred in the workshop as well as in the out-door work." In such cases an enormous amount of work which is often fruitless is not infrequently thrown upon the inspectors. It has happened that after laborious inquiry, not only by the inspectors but also by the certifying surgeons, no ground has been discovered for assuming that the poisoning was effected at the factory. Several of the inspectors in their reports write feelingly of the loss of time which has been caused by investigations of the kind described. Here, for example, are instances. "Much valuable time was wasted in making inquiries into

cases of lead-poisoning occurring among house painters." (Mr. Johnson, West London, p. 156.) "General work has been much hindered by the necessity of investigating cases of lead-poisoning, or alleged lead-poisoning." (Mr. Blenkinsopp, West London, p. 155.)

During the year 1900 not less than 199 cases of lead-poisoning amongst house painters and plumbers were reported—these were of course excluded from the total given by the medical inspector which contains only cases reported under Section 29 of the Act of 1895. It may be of interest to give the numbers of those affected in the case of the principal trades: china and earthenware, 200 (49 less than in the previous year); litho-transfer works, 10; glass-polishing, 7; smelting, 34; turning and enamelling, 16; file-cutting, 40; white lead, 358 (41 less than in the previous year); paints and colours, 56; coachmaking, 70; ship-building, 32; electric accumulation works, 33; other industries, 202. An excellent analysis of the reports on lead-poisoning by the certifying surgeons is given by the medical inspector (p. 435). In this table information is given as to the exact occupations in which the poisoning was contracted, and the cases are, as far as possible, classified as "severe," "moderate," and "slight." There is also a tabular statement of the chief symptoms present, from which it appears that in the case of men 83.2 per cent. had gastric symptoms, 12.9 per cent. suffered from anæmia, 4.7 per cent. from headache, 12 per cent. from paresis, 3.1 per cent. from cerebral symptoms, and 5.9 per cent. from "rheumatic" symptoms. It seems curious that gout does not occur in the list. The women suffered less from gastric symptoms, to about the same extent from anæmia, to a much greater extent from headache, very much less from paresis, and more from cerebral symptoms and from rheumatic pains. The medical inspector is of opinion that the slower form of lead-poisoning brought about by the absorption of metallic lead and of the lead salts in the form of paint produces a more serious condition than that which is caused by the inhalation of dust or of fumes. Severe cases amongst file-cutters and coach- and ship-painters are common. The importance of both the age distribution and of the amount of time relatively spent by the different classes of workmen in the respective trades deserves consideration in this connexion. The following table is quoted as the most ready method of making these matters clear:—

Source of poisoning.	Age.		Duration of employment.	
	Under 30 years.	30 years and over.	1 to 5 years.	5 years and over.
	Per cent.	Per cent.	Per cent.	Per cent.
Metallic lead ... ..	43.0	57.0	37.4	62.6
Salts of lead as paint	43.6	57.4	45.8	55.2
Salts of lead as dust	65.4	34.6	76.0	24.0

A study of the table considered in the light of a knowledge of the processes of the trades in which lead and its salts are used shows the preventive measures which should be adopted. The immediate removal of the dust is the essential preventive measure in china and earthenware factories, in places at which processes connected with white and red lead are carried on, in paint and colour factories, in all work-rooms in which operations of litho-transfer are conducted, and wherever iron plates are enamelled. The medical inspector is of opinion that 90 per cent. of the cases of poisoning which occur in these trades are due to neglect in the immediate removal of the dust, some of which therefore is inhaled by the workers. In trades in which metallic lead paints are used the essential point is that the workmen should wash. In such trades Dr. Legge believes that 90 per cent. of the cases of poisoning are due to the absence of this simple precaution. In this matter the workmen are often to blame. In some cases, however, the employers have been distinctly at fault. A rather interesting case to the point is reported by the inspector for the North-western division of England (p. 304), but unfortunately it was not fought out to the end. A brass finisher brought an action in the Manchester County Court before His Honour Judge Parry to recover damages from his former employers because he had become poisoned by lead

in the course of his work. He had in the ordinary course of his occupation to use white lead for the purpose of putting fittings together. After the fittings were put together he had to suck them with his mouth to see if they were airtight or not. A pump ought properly to have been used for this purpose but the one instrument provided was suitable for large work only. Under the Factory Acts the employers are required to provide suitable washing appliances for the use of the workpeople. The plaintiff in cross examination admitted that a bucket was provided in which they could wash and that they could have soap if they asked for it and there were some "fents" in the room to serve as towels. The judge remarked that the Act required suitable lavatory accommodation. "Suitable washing conveniences should be supplied," he said, "but there were nothing but inconveniences apparently." The case ended by the payment to the plaintiff of £45 and costs.

The medical inspector has done much to bring the importance of washing prominently to the notice of lead-workers. A leaflet on "Lead-poisoning: How Caused and How Best Prevented," has been written, and no less than 10,000 copies have been distributed to those chiefly interested in the matter. The leaflet contains a great deal of excellent advice clearly given. One paragraph might, perhaps, with advantage have been put differently or omitted. It bears on the importance of not inhaling or swallowing lead and is preceded by an excellent sentence: "Carefulness while at work and cleanliness offer the best means of escaping attacks of lead-poisoning." The writer of the pamphlet then proceeds to say, "Those who work in lead should keep in mind every hour of every working day the importance of not breathing lead-dust and not carrying lead to the mouth in any way." Such a constant thought would hardly lead to a happy mental state.

The number of printers who suffered from plumbism during the year 1900 was 17, eight less than the number affected during the preceding year. Of those affected 10 were compositors, four were linotypists, two were stereotypers, one was a tyre rubber, and a case also occurred in a man employed in sweeping up the filings which dropped from a linotype machine. The medical inspector deprecates "the pernicious habit which many compositors have of holding the type between their teeth." It is certainly a dangerous habit and we may hope that it is not a common one amongst a most intelligent class of men.

The incidence of cases of poisoning amongst workers in white lead shows only a slight decrease, and periodical medical examination is said to be ineffective as a means of producing improvement partly because of (1) the low stratum of society from which the workers are drawn, and partly because (2) the threat of suspension is not so deterrent as in other branches of industry in which lead is employed. White lead workers are often a casual shifting race, whereas the skilled work employed in the Potteries is a well-paid profession not lightly to be given up.

A considerable improvement has been recently brought about in the earthenware and china industries. The number of cases of lead-poisoning reported in the year 1899 was 249, in the year 1900 it was 200. The statistics for the latter year show that the total number of people employed in the process of dipping amounted to 2265, and the number of those engaged in other branches of the work to 6372. Of the dippers 123, a proportion of 5.4 per cent., were affected by lead-poisoning. Of the other workers 200 were affected, a proportion of 3.1 per cent. These figures compare favourably with those of the previous year to the extent of 0.1 per cent. and 0.8 per cent. respectively. The principal improvement has taken place amongst the more skilled workers—the majolica-painters, the colour-dusters, and the glost-placers. The change for the better is seen throughout the whole of the districts engaged in the manufacture. A separate return is given showing for the Potteries district the number of persons employed in the different works and the number of cases of lead-poisoning reported to have occurred amongst them. In this list it is seen that in the case of majolica-painters the incidence of plumbism has been reduced from 4.7 per cent. in the year 1899 to 0.9 per cent. in 1900. The number of the skilled artisans is, however, small; it amounts only to 425, all of whom are women. The total number of people employed in this district in the various branches of the trade is 4857, and of these 165 suffered from plumbism, a proportion of 3.4 per cent., an improvement of 1 per cent. on the returns of the previous year.

Mr. J. F. Arlidge has made a series of inquiries to determine the effects of lead on pregnancies. He found that 239 women before they were engaged in working in lead bore 453 children, of whom 183 died. The total number of pregnancies was 487 and the number of miscarriages was 34. At the time during which they worked and after they had ceased to work in lead these women bore 499 children, of whom 182 died; the total number of pregnancies was 566 and the number of miscarriages was 67.

It is pleasant to be able to record the fact that a leadless glaze is coming into general use for the enamelling of iron hollow-ware, and that the number of glass-cutters who suffered from plumbism during the year 1900 was markedly less than that of those who suffered from it during the previous year (the exact numbers are seven and 19 respectively). On the other hand, the number of cases occurring amongst the manufacturers of electric accumulators is one in excess of that reported in the year 1899. Amongst those who work in the preparation of paints and colours the incidence of lead-poisoning is still severe. 30 factories are used for the work and over 82 per cent. of the cases occurred in those engaged in grinding and mixing pigments. Coach-builders also still suffer greatly from plumbism. 34 cases occurred amongst railway employés, and of these 19 occurred amongst the men of a large company on whose premises "the facilities for washing were bad." In making this statement it is reasonable to assume that the medical inspector desired to convey the idea that facilities for washing were absent or insufficient. In calico works it is stated that aniline dyes are taking the place of chromate of lead. A list of the fatal cases of lead-poisoning is given, but the enumeration of the symptoms from which the patients suffered is not sufficiently complete to make it of any clinical value.

## ELECTION OF DIRECT REPRESENTATIVES: CANDIDATURE OF DR. GLOVER.

A MEETING in support of the candidature of Dr. J. G. Glover was held on Oct. 4th at 1, Highbury-place, London, N. The chair was taken by Dr. G. Danford Thomas, who in his opening remarks urged the claims of Dr. Glover for re-election to the General Medical Council.

Dr. GLOVER said:—The importance of this meeting will turn rather upon what my constituents say than on what I say. But I must do my part in asking you to renew your support at another election. The General Medical Council is one of the best abused bodies in the profession. And it is all the better for a little criticism. If the critics are censorious and unreasonable it is they who suffer rather than the General Medical Council. As to my own claim to represent you, if you are not convinced of it by this time hardly anything I can say will convince you. But I trust that after hearing me you will see your way to that expression of confidence which has always served me in the past. It is in the very nature of the case that I must speak somewhat egotistically. I have to justify my existence. You will forgive any appearance of vanity. First, I should not be worthy to be a Direct Representative if I did not try to make medical education better. I believe that in its soundness and efficiency the great strength of the profession lies. Within a year or two of my election I tried to show the Council that there were gaps in medical education and that there were great groups of diseases not much seen by the student and in which he was not examined: that hospital practice was not general practice. In this I was fully supported by my then colleagues the Direct Representatives. The Council, and especially its leading members, gave us a fair hearing. We succeeded in getting the Government to throw the Metropolitan Asylums Board open to medical students. We secured, what I fear has been little acted on, the recognition of pupilage to a medical practitioner. Sir James Paget wrote to me on my views and said, "I see what you will do: you will add another year to medical education." That year, of course, has been added and the Direct Representatives have a full share of the responsibility and, as I think, the credit of the change. I said to a medical student a few months ago, "You are at the stage of your education described as walking the hospital." He replied, "I am walking five hospitals," and he made

good his statement by showing that besides his own hospital he was studying fevers at one hospital and insanity at another and that his tutor was very good in giving him clinical instruction at one or two hospitals to which he was attached. There are other questions which I must not pass over. There is the midwives question. I shall say a few words about it. I think it is a less burning question than it was in the last two elections, chiefly because I think that everybody sees that it must be settled. I do not myself care how simple the machinery is by which the new midwife is to be governed, nor do I care how simple her training is. I told the General Medical Council once, and I repeat, that if we could only secure that all midwives should know the value of clean hands and of puerperal cleanliness generally we should immensely reduce the mortality of lying-in women attended by them. In addition to this we could secure—as they do in every respectable maternity charity—that the women are to be made to understand the limits of their own functions and the obligation resting on them to send for a registered medical practitioner whenever the case of the mother or child presents any unusual features, we should have done nothing to impair the authority and the place of midwifery as a most important branch of medicine and we should have helped in a movement to increase the safety of lying-in women in childbirth. I have no objection to call this new midwife a “midwifery nurse,” though I think the Legislature would insist on the old word. A “nurse midwife” would be the best title, for it would indicate what is the fact—that the poor woman for whom alone this legislation is meant and for whom alone it can be justified, needs a nurse as well as a midwife. I wish to emphasise two points in my personal view of this question. First, that a Midwives Bill will be of little use if it does not stop the *practice* of midwifery by all women not certified or licensed. Until the last Bill it was only attempted to prevent the use of the title “midwife.” That, in my opinion, would be useless for the same class of women that make the Sarah Gamps would continue to exist and to attend the cases without calling themselves midwives. The next point on which I feel strongly is that it should be a part of this legislation for every district to provide and to pay registered medical men to respond to the call of the midwife. If it is fit for the State to provide gratuitous vaccination for the children of the poor it is surely equally reasonable to provide medical help for the mother in the hour of her peril. I succeeded in the Midwives Committee of the General Medical Council in getting this view adopted. But I did not succeed in getting the Council to accept it and undoubtedly the House of Commons will think twice, especially at the present time, before passing a clause which involves any addition to rates or taxes, however slight. But this is a very special case and one that should appeal to all parties. I must not spend more time on the midwives question. I should not have spent so much but for its human importance and the way in which it takes up the time and money of the Council. It would not be an exaggerated estimate to say that first and last our discussions on this subject have cost £1500 or £2000. We had one special session which cost between £600 and £700 to consider a Midwives Bill. The proposal for the creation of a Conciliation Board for the adjustment of disputes between medical aid associations composed chiefly of friendly societies and the medical profession has had, and if I am elected again will have, my warm support. Such a board must be formed outside of the Council; but it cannot be doubted that the support of the proposal by the Council and the great personal interest of the President, Sir William Turner, have greatly facilitated the realisation of such a proposal. The dispute between the Royal College of Surgeons of England and the Royal College of Physicians of London on the one hand, and the General Medical Council on the other, is an unhappy one, and one that the best friends of the General Medical Council will try to bring to a termination within the Council itself, and soon. I hold no brief for the Royal Colleges. I have always been surprised that the Royal College of Surgeons of England did not concede the reasonable degree of direct representation asked for by its members of whom it might well be proud. Such a refusal seems to me unreasonable and impolitic. But the matter under dispute at present between the Colleges and the Council is one that can only be settled amicably. Our own lawyers tell us that we have not the power to compel the Colleges to submit to our approval the institutions whose teaching in science they accept. The Colleges justly say that

they carefully inspect the institutions. We do not pretend that we have any means of doing so. It is not denied that in many of them chemistry, physics, and biology are well taught. My desire and endeavour will be to preserve or to restore the good understanding which has hitherto prevailed between the Colleges and the Council. Gentlemen, perhaps you will ask me what is the position and outlook of direct representation, and my reply shall be short. I see little immediate chance of any large increase of it. Parliament is terribly preoccupied with the war, and if once the war were ended there are other questions that would seriously compete with the demand for any amendment of the Medical Acts. But if we use direct representation well, and if the profession itself exercises the franchise already conceded to it, we may reasonably hope that the principle will be extended. There are various views entertained of the work and merit of the General Medical Council; according to some it has no merit, according to others it is a serious and powerful body. Be this as it may, it combines all medical authorities in its conferences and the Direct Representatives as well. So that meantime we do well to make much of it. It has improved education. It has raised the tone of professional ethics and of medical practice. It has abolished the unqualified assistant and by so much has enhanced the value of qualification. It has improved the feeling existing between the individual bodies and increased their mutual respect. By direct representation it supplies a link between the medical authorities and the General Medical Council. In all those ways it has benefited the public. For all these reasons the profession does well to regard it with respect and interest. I must be excused one personal word in closing. I do not know what the issue of the election will be. As regards myself I am struck with the attitude of confidence and kindness towards me throughout the profession and even including many who do not agree with me on all points. For one thing, whatever happens, I shall always have to be grateful—and that is the help and support of my neighbours. A man who has not this encouragement has little right to expect success. I have never lacked this support and I never had more evidences of it than I have had on this occasion.

SIR THOMAS BARLOW said that he attended the meeting with considerable diffidence and because he knew that it was to be a friendly meeting of fellow practitioners for the sake of conference and in order to learn something about the important questions that concerned the General Medical Council. The reason why so many people shirked medical politics was because they did not feel any direct concern in them. Men thought that the General Medical Council did not affect them, and having their own work to do said medical politics were no concern of theirs. But that was a very unworthy attitude to take up, for whatever concerned the humblest member of their profession concerned them all. There was a Nemesis that would come to them if they put aside the claims of their fellow practitioners. The manly and English thing to do was to take the trouble and pains to find out about these questions. There was a right and a wrong way, and they should try to carry the best man through to the General Medical Council and have things properly considered. If they did not address themselves to these questions and get to the bottom of them they would be taken out of their hands either by the Government or by the public, and both of these results would be a misfortune and a calamity. In regard to the midwives question was it not a scandal that it had lain so long on the table unsettled? Practical politicians recognised that there was a crying need calling for legislation to protect poor folks. If the profession kept the line that they had taken on this midwives question (for they were all in the same boat) it was a line of conduct rather like that of the dog in the manger. No impartial person who had listened to Dr. Glover could resist the conviction that the method that he and others had adopted was a sane method that brought the matter into practical politics. He considered that the midwives ought not to attempt any operative midwifery as that would be abominable. The midwives ought to have the power to call in some well-qualified practitioner to back them up in difficult cases. They ought to strengthen the General Medical Council and its members, especially those who took a practical, sane view. In regard to the friendly aid societies, however much they might dislike the conditions some line of action must be taken or the profession would be degraded. It was easy to sneer at the General Medical Council,

but anybody could sneer. What they wanted was someone to watch and to see the trend of public opinion. It was marvellous how rapidly social changes took place, and the position of their poorer brethren might be undermined in many ways right and left unless there were those who were on the *qui vive* and determined to defend them. They ought to make up their mind to secure the election of a good man to the Council, and he felt anxious that Dr. Glover should be elected because in choosing Direct Representatives they must have a man who knew what the life of a general practitioner was and who knew it in different ways. Further, they wanted a man who would not approach the question in any spirit of trade unionism. The great thing was to have these matters dealt with in the interests of the public because the interests of the profession were the interests of the public, and if the right thing were done for the public that would in the long run be right for the profession. Many of them perhaps did not agree with Dr. Glover in every line that he took, but he (Sir Thomas Barlow) was convinced that when Dr. Glover spoke on behalf of their craft he always bore in mind not only their interest but also the public interest. He did not think that any impartial person could have listened to the statement of Dr. Glover without recognising the tone of moderation, of practical politics, and of medical common-sense, that commended itself to the thoughtful practitioner. They wanted a Direct Representative who was alive to the danger of aimless and useless talk, and they wanted someone who recognised that the General Medical Council had limitations and could not do everything. Referring to Dr. Glover's remarks about the cost of talking on medical business at the General Medical Council, he said that it showed that Dr. Glover was alive to the great waste of money and that he wanted to work at something that was practical and within reasonable limits. Dr. Glover was well known to be practical, sensible, and moderate, and would not waste time or words, and for those reasons he had particular pleasure in proposing the following motion:—

That this meeting, having heard from Dr. Glover a statement of the work of the General Medical Council and of his views thereon, and having regard to his action in the three periods during which he has been one of the Direct Representatives of the profession in the Council, hereby expresses its unabated confidence in him and its determination to do all in its power to ensure his successful re-election.

Dr. J. FORD ANDERSON, in seconding the motion, said that the large number of practitioners who failed to vote at the election implied an appalling want of public spirit.

Dr. A. G. BATEMAN, in supporting the motion, said that owing to his peculiar official position he had particular reason for knowing Dr. Glover and his work. Dr. Glover was not a man of fancies or fads and was not easily biased by outside opinion. He would pay attention to what was said and would bring any matter before the General Medical Council if he thought it right to do so and would explain it to the Council with great tact and experience. With regard to the procedure of the General Medical Council he urged that by a new Medical Act the Council should have power to subpoena witnesses and should be empowered to administer the oath.

The motion was then put and was carried unanimously.

Dr. F. J. BUCKELL proposed, Mr. T. JAGO seconded, and Dr. W. A. MALCOLM supported the following motion, which was carried unanimously:—

That this meeting, believing that Dr. Glover's re-election will be in the interest of the profession generally as well as in that of the principle of direct representation, desires to commend his candidature to the heartiest support of all registered medical practitioners in England and Wales, who, it is hoped, will in their own interest, as well as that of the public, record a much larger vote at the coming election than on any previous occasion.

Dr. A. REID announced that promises of support had been received from the following, amongst others: Dr. James Adams, Eastbourne; Dr. F. H. Alderson, Bournemouth, formerly of London; Mrs. Garrett Anderson, London; Dr. Robert Barnes, consulting physician to St. George's Hospital; Mr. L. G. Barritt, Spalding; Dr. R. W. Batten, Gloucester; Mr. G. H. Biden, Penrith; Mr. C. W. Biden, Framlingham, Suffolk; Dr. G. H. Bishop, Wimbledon; Dr. J. Gordon Black, Harrogate; Dr. F. Milnes Blumer, Stafford; Mr. W. Percy Blumer, Sunderland; Mr. C. Braine-Hartnell, Stroud; Dr. J. W. Bramwell, Cheltenham; Mr. Edward Buckell, Romsey, Hants; Mr. J. L. Crisp, South Shields; Dr. George Easter, London; Mr. Hilton Fagge, Melton Mowbray; Dr. Joseph Frain, Newcastle-on-Tyne; Dr. R. Ritchie Giddings, Nottingham; Dr. J. Gill, Clifton;

Mr. A. Pearce Gould, London; Dr. Groves, Newport, Isle of Wight; Dr. James Hardie, Manchester; Dr. F. de Havilland Hall, London; Dr. T. F. Higgs, Dudley; Dr. A. Hollis, Freshwater; Dr. G. Petgrave Johnson, Stoke-on-Trent; Mr. H. W. Kendall, Clifton; Mr. G. Longbotham, Middlesboro'; Dr. Stephen Mackenzie, London; Dr. James Murphy, Sunderland; Dr. William Murray, Newcastle-on-Tyne; Dr. George R. Murray, Newcastle-on-Tyne; Dr. Frederick Page, Newcastle-on-Tyne; Dr. R. Paramore, London; Dr. Robert Peart, North Shields; Dr. Lloyd Roberts, Manchester; Mr. Thomas Rushbrooke, London; Dr. E. Markham Skeritt, Clifton; Mr. Rudolph Smith, Stockton-on-Tees; Dr. Smith, Newport, Essex; Dr. E. Mansel Sympson, Lincoln; Mr. B. Thornton, Margate; Mr. A. Primrose Wells, Beckenham; Dr. R. M. Witham, Burnley; Dr. James S. Williamson, Ventnor, and Mr. E. M. Wrench, Bas-low.

The following gentlemen were constituted a general committee for the promotion of the candidature of Dr. J. G. Glover as a Direct Representative: Dr. W. Danford Thomas, Mr. W. H. Kesteven, Dr. J. A. Glover, Dr. C. A. Ironside, Dr. A. Reid, Mr. G. F. Pollard, Mr. G. T. Keele, Dr. T. Hamilton, Sir Thomas Barlow, Dr. R. Paramore, Dr. A. G. Bateman, Dr. F. J. Buckell, Dr. Tice J. Budden, Dr. R. Hingston Fox, Mr. Thomas Jago, Mr. T. D. Jago, Dr. Alexander Morison, Mr. T. Hobbs Crampton, Dr. W. A. Malcolm, Dr. Ford Anderson, Mr. R. C. M. Pooley, Dr. Peter Harper, and Dr. Michael J. Bulger.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6378 births and 3435 deaths were registered during the week ending Oct. 5th. The annual rate of mortality in these towns, which had declined from 21.6 to 16.7 per 1000 in the six preceding weeks, further decreased last week to 15.6. In London the death-rate was 14.7 per 1000, while it averaged 16.2 in the 32 large provincial towns. The lowest death-rates in these towns were 10.8 in Bradford, 11.0 in Huddersfield, 11.3 in Derby, and 12.0 in Cardiff; the highest rates were 19.8 in Gateshead, 20.0 in Liverpool, 21.3 in Newcastle, and 23.1 in Sunderland. The 3435 deaths in these towns last week included 526 which were referred to the principal zymotic diseases, against 970, 732, and 634 in the three preceding weeks; of these 526 deaths 281 resulted from diarrhoeal diseases, 74 from diphtheria, 59 from "fever" (principally enteric), 41 from measles, 38 from scarlet fever, 30 from whooping-cough, and three from small-pox. The lowest death-rates from these diseases last week were recorded in Portsmouth, Cardiff, Swansea, Derby, and Huddersfield; and the highest rates in West Ham, Salford, Leeds, Sunderland, and Gateshead. The greatest proportional mortality from measles occurred in West Ham and in Wolverhampton; from scarlet fever in Preston; from whooping-cough in Plymouth and in Newcastle; and from diarrhoeal diseases in West Ham, Leicester, Salford, Burnley, and Gateshead. The 74 deaths from diphtheria in the 33 large towns included 30 in London, eight in West Ham, eight in Liverpool, five in Brighton, five in Hull, and four in Bristol. Three fatal cases of small-pox occurred in London, but not one in any other of the 33 large towns. There were 169 small-pox patients under treatment in the Metropolitan Asylums hospitals on Saturday, Oct. 5th, against numbers increasing from 13 to 163 on the seven preceding Saturdays; 51 new cases were admitted during the week, against 62, 37, and 44 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had risen from 2994 to 3151 at the end of the four preceding weeks, had further increased to 3157 on Saturday last; 426 new cases were admitted during the week, against 457, 427, and 460 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 116, 124, and 137 in the three preceding weeks, declined again last week to 132, and were 72 below the corrected average. The causes of 41, or 1.2 per cent., of the deaths in the 33 towns last week were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Nottingham, Salford, Bradford,

Leeds, and in 14 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham-Liverpool, and Sheffield.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had decreased from 17.8 to 16.0 per 1000 in the four preceding weeks, further declined to 14.5 per 1000 during the week ending Oct. 5th, and was 1.1 below the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 9.1 in Greenock and 9.4 in Leith to 16.2 in Aberdeen and 16.4 in Dundee. The 463 deaths in these towns included 42 which were referred to diarrhoea, 14 to measles, seven to scarlet fever, seven to whooping-cough, six to diphtheria, and six to "fever." In all, 82 deaths resulted from these principal zymotic diseases last week, against 83 and 73 in the two preceding weeks. These 82 deaths were equal to an annual rate of 2.6 per 1000, which was 0.2 above the mean death-rate last week from the same diseases in the 33 large English towns. The fatal cases of diarrhoea, which had been 53 and 42 in the two preceding weeks, were again 42 last week, and included 16 in Glasgow, nine in Dundee, seven in Aberdeen, four in Greenock, three in Paisley, and three in Leith. The deaths from measles, which had been five and 12 in the two preceding weeks, further increased last week to 14, of which 12 were recorded in Glasgow. The deaths from scarlet fever, which had been three, two, and four in the three preceding weeks, rose to seven last week, and included five in Glasgow. The fatal cases of whooping-cough, which had been 13 and seven in the two preceding weeks, were again seven last week, and included five in Glasgow and two in Edinburgh. The deaths from diphtheria, which had been three, four, and one in the three preceding weeks, increased again last week to six, of which three were registered in Glasgow and three in Edinburgh. The fatal cases of "fever," which had been 12, six, and seven in the three preceding weeks, declined again to six last week, and included three in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 79, 81, and 101 in the three preceding weeks, declined again last week to 77, and were 21 below the number in the corresponding period of last year. The causes of 19, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23.4 and 17.8 per 1000 in the two preceding weeks, rose again to 19.9 during the week ending Oct. 5th. During the past four weeks the death-rate has averaged 20.8 per 1000, the rates during the same period being 15.3 in London and 15.6 in Edinburgh. The 143 deaths of persons belonging to Dublin registered during the week under notice showed an excess of 15 over the number in the preceding week, and included 20 which were referred to the principal zymotic diseases, against 25, 30, and 17 in the three preceding weeks; of these, nine resulted from diarrhoea, eight from "fever," two from whooping-cough, and one from diphtheria. These 20 deaths were equal to an annual rate of 2.8 per 1000, the zymotic death-rates during the same period being 1.9 in London and 1.1 in Edinburgh. The fatal cases of diarrhoea, which had been 22, 20, and 11 in the three preceding weeks, further declined last week to nine. The deaths referred to different forms of "fever," which had been two, three, and three in the three preceding weeks, increased to eight last week. The 143 deaths in Dublin last week included 31 of children under one year of age and 37 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a slight increase over the respective numbers recorded in the preceding week. Three inquest cases and two deaths from violence were registered; and 40, or nearly one-third, of the deaths occurred in public institutions. The causes of 12, or more than 8 per cent., of the deaths in Dublin last week were not certified.

#### VITAL STATISTICS OF LONDON DURING SEPTEMBER, 1901.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality in each of the cities and boroughs in the county of London.

With regard to the notified cases of infectious diseases it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to an annual rate of 12.4 per 1000 of the population, provisionally estimated at 4,543,757 persons in the middle of the year. In the three preceding months the rates had been 8.5, 9.6, and 8.6 per 1000 respectively. The rates were considerably below the average in Kensington, Hammersmith, Chelsea, the City of Westminster, Wandsworth, and Woolwich; while they showed the largest excess in St. Pancras, Hackney, Finsbury, Southwark, Bermondsey, and Deptford. During the four weeks ending Sept. 28th, 157 cases of small-pox were notified in London, against 4, 22, and 94 in the three preceding months; 52 cases belonged to St. Pancras, 22 to St. Marylebone, 13 to Holborn, 12 to Finsbury, and 10 to Islington. The number of small-pox patients under treatment in the Metropolitan Asylums hospitals at the end of September was 163, against 5, 13, and 74 at the end of the three preceding months; 174 new cases were admitted during the month, against 5, 19, and 93 in the three preceding months. The prevalence of scarlet fever showed a considerable increase over that recorded in recent months; among the various metropolitan boroughs this disease was proportionally most prevalent in St. Pancras, Hackney, Bethnal Green, Southwark, Bermondsey, Camberwell, and Greenwich. The Metropolitan Asylums hospitals contained 3096 scarlet fever patients at the end of September, against 2752, 3026, and 2971 at the end of the three preceding months; the weekly admissions averaged 412 last month, against 343, 355, and 288 in the three preceding months. The prevalence of diphtheria showed a marked increase over that recorded in the preceding month; the greatest proportional prevalence of this disease was recorded in Fulham, St. Pancras, Hackney, Holborn, Finsbury, and Deptford. There were 1499 diphtheria patients under treatment in the Metropolitan Asylums hospitals at the end of September, against 1169, 1332, and 1336 at the end of the three preceding months; the weekly admissions averaged 248, against 175, 209, and 177 in the three preceding months. The prevalence of enteric fever was greatly in excess of that shown in any recent month; among the various metropolitan boroughs this disease was proportionally most prevalent in Fulham, Hackney, Shoreditch, Stepney, Poplar, and Deptford. The number of enteric fever patients under treatment in the Metropolitan Asylums hospitals, which had been 125, 166, and 225 at the end of the three preceding months, had further risen to 292 at the end of September; the weekly admissions averaged 50, against 25, 29, and 42 in the three preceding months. Erysipelas was proportionally most prevalent in Paddington, St. Pancras, Hackney, Finsbury, Stepney, Southwark, and Deptford. The 19 cases of puerperal fever included three in Islington, three in Lambeth, three in Wandsworth, two in Paddington, and two in Hackney.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various metropolitan boroughs, the deaths occurring in the public institutions of London having been distributed among the various metropolitan boroughs in which the deceased persons had previously resided. During the four weeks ending Sept. 28th, the deaths of 5381 persons were registered, equal to an annual rate of 15.4 per 1000, against 13.4, 16.1, and 18.5 per 1000 in the three preceding months. The lowest death-rates in the various metropolitan boroughs were 8.6 in Hampstead, 10.6 in Paddington, 12.0 in Kensington, 12.2 in Stoke Newington, 12.9 in the City of Westminster and in Woolwich, and 13.3 in Islington; the highest rates were 19.1 in Finsbury and in Stepney, 19.2 in Holborn, 19.3 in Poplar, 20.2 in Shoreditch, and 20.7 in Bethnal Green. During the four weeks of September 1047 deaths were referred to the principal zymotic diseases; of these, 24 resulted from small-pox, 58 from measles, 49 from scarlet fever, 109 from diphtheria, 62 from whooping-cough, 62 from enteric fever, and 683 from diarrhoeal diseases. The lowest death-rates from these diseases occurred last month in Kensington, Chelsea, City of Westminster, St. Marylebone, Hampstead, Wandsworth, and Woolwich; and the highest rates in Finsbury, Shoreditch, Southwark, Bermondsey, Greenwich, and Lewisham. The 24 fatal cases of small-pox largely exceeded the average and included 17 in St. Pancras, two in St. Marylebone, and one each in Hampstead, Islington, Stoke Newington, Hackney, and Southwark. The 58 deaths from measles showed a considerable decline from the average

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING SEPTEMBER, 1901.  
(Specially compiled for THE LANCET.)

CITIES AND BOBOUGHS.	Estimated population in the middle of 1901.	NOTIFIED CASES OF INFECTIOUS DISEASE.										DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.										Deaths of infants under one year to 1000 births.				
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Fuerial fever.	Brytielias.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.*	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhoeal diseases.		Total.	Annual rate per 1000 persons living.	Deaths from all causes.	Death-rate per 1000 living.
LONDON...	4,543,787	157	1971	1292	1	453	6	19	431	1	4331	12.4	24	58	49	109	62	—	62	—	683	1047	3.0	5381	15.4	168
West Districts.																										
Paddington...	144,154	2	64	25	—	12	—	2	17	—	122	11.0	—	—	—	—	—	—	—	—	21	29	2.6	117	10.6	129
Kensington...	176,787	4	46	24	—	12	1	1	9	—	97	7.2	—	1	1	1	2	—	—	—	12	17	1.3	163	12.0	154
Hammersmith...	112,619	1	37	10	—	5	—	—	8	—	61	7.1	—	—	—	2	2	—	—	—	21	25	2.9	151	17.5	208
Fulham...	138,426	—	19	69	—	19	1	—	7	1	156	14.7	—	—	1	3	3	—	3	—	24	34	3.2	142	13.4	153
Chelsea...	73,879	1	16	7	—	5	—	—	1	—	30	5.3	—	—	—	—	—	—	2	—	2	5	0.9	79	13.9	103
City of Westminster...	182,502	5	43	28	—	7	1	—	13	—	97	6.9	—	1	1	3	1	—	3	—	10	19	1.4	181	12.9	137
North Districts.																										
St. Marylebone...	133,060	22	46	21	—	5	—	—	15	—	109	10.7	2	—	1	4	—	—	1	—	14	22	2.2	152	14.9	83
Hampton...	82,287	2	27	14	—	9	—	1	5	—	58	9.2	1	—	—	—	1	2	—	—	6	11	1.7	54	8.6	122
St. Pancras...	235,297	52	114	129	—	29	—	1	29	—	354	19.6	17	2	2	8	3	—	2	—	23	57	3.2	312	17.3	156
Islington...	335,325	10	157	125	—	37	1	3	29	—	362	14.1	1	5	6	13	3	—	6	—	32	66	2.6	342	13.3	124
Stoke Newington...	51,328	5	11	11	—	5	—	—	4	—	36	9.1	1	—	1	1	—	—	1	—	5	9	2.3	48	12.2	104
Hackney...	219,780	6	107	165	—	38	—	2	35	—	283	17.4	1	5	2	11	2	—	3	—	26	50	3.0	260	15.4	177
Central Districts.																										
Holborn...	59,206	13	25	27	1	1	—	—	5	—	72	15.9	—	1	—	2	—	—	1	—	10	14	3.1	87	19.2	162
Finsbury...	101,243	12	45	43	—	7	—	—	19	—	126	16.2	—	4	—	3	2	—	2	—	23	34	4.4	148	19.1	153
City of London...	88,627	2	8	11	—	3	—	—	—	—	24	11.7	—	—	—	1	—	—	1	—	3	5	2.4	35	17.1	204
East Districts.																										
Shoreditch...	118,554	2	45	37	—	17	1	1	6	—	109	12.0	—	7	—	2	1	—	3	—	24	37	4.1	184	20.2	219
Bethnal Green...	129,700	2	84	35	—	13	—	—	15	—	149	15.0	—	5	3	4	—	—	2	—	24	38	3.8	206	20.7	191
Stepney...	286,884	4	138	89	—	49	—	—	43	—	323	14.1	—	3	4	7	9	—	6	—	57	86	3.8	438	19.1	205
Poplar...	168,887	2	57	64	—	29	—	—	18	—	170	13.1	—	3	—	7	2	—	2	—	36	50	3.9	250	19.3	200
South Districts.																										
Southwark...	206,219	4	161	74	—	22	—	1	31	—	293	18.5	1	6	5	8	3	—	2	—	39	64	4.0	294	18.6	191
Bermondsey...	130,348	—	128	33	—	15	—	—	13	—	189	18.9	—	—	1	3	2	—	4	—	33	43	4.3	181	18.1	170
Lambeth...	302,460	3	138	53	—	17	—	3	20	—	234	10.1	—	3	4	4	4	—	3	—	50	68	2.9	345	14.9	170
Battersea...	169,384	—	67	23	—	11	—	1	7	—	109	8.4	—	7	2	3	3	—	—	—	23	38	2.9	181	13.9	161
Wandsworth...	233,943	1	51	37	—	10	—	3	19	—	121	6.7	—	3	3	1	2	—	1	—	29	39	2.2	248	13.8	157
Camberwell...	258,897	—	136	63	—	29	—	—	23	—	251	12.6	—	—	7	5	9	—	5	—	49	75	3.8	282	14.1	197
Deptford...	110,732	—	44	62	—	14	1	—	16	—	137	16.1	—	—	2	2	2	—	—	—	19	25	2.9	137	16.1	155
Greenwich...	96,188	—	51	33	—	8	—	—	9	—	101	13.7	—	1	—	5	—	—	3	—	21	30	4.1	111	15.5	191
Lewisham...	128,423	1	36	25	—	8	—	—	9	—	79	8.0	—	1	1	1	4	—	3	—	30	40	4.1	137	13.9	238
Woolwich...	117,619	1	30	15	—	12	—	—	6	—	64	7.1	—	—	—	—	—	—	—	—	17	17	1.9	116	12.9	159
Port of London...	—	—	—	—	—	5	—	—	—	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Including membranous croup.

number in the corresponding periods of the 10 preceding years; among the various metropolitan boroughs this disease was proportionally most fatal in Hackney, Finsbury, Shoreditch, Bethnal Green, Southwark, and Battersea. The 49 fatal cases of scarlet fever were 19 below the average; the greatest proportional fatality from this disease occurred in Islington, Bethnal Green, Southwark, Camberwell, and Deptford. The 109 deaths from diphtheria showed a decline of 68 from the average number in the corresponding periods of the 10 preceding years; this disease showed the highest proportional fatality in St. Pancras, Islington, Hackney, Poplar, Southwark, and Greenwich. The 62 fatal cases of whooping-cough were 56 below the corrected average number; among the various metropolitan boroughs this disease was proportionally most fatal in Fulham, Stepney, Camberwell, Greenwich, and Lewisham. The 62 deaths referred to "fever" corresponded with the average number in the corresponding periods of the 10 preceding years; the highest "fever" death-rates occurred in Fulham, Chelsea, Shoreditch, Bermondsey, Greenwich, and Lewisham. The 683 deaths from diarrhoeal diseases were 134 in excess of the corrected average number; the proportional mortality from these diseases was highest in Finsbury, Shoreditch, Poplar, Bermondsey, Greenwich, and Lewisham. In conclusion, it may be stated that the aggregate mortality from these principal zymotic diseases in London during September almost corresponded with the average.

Infant mortality in London last month, measured by the proportion of deaths of children under one year of age to registered births, was equal to 168 per 1000. The lowest rates of infant mortality were recorded in Chelsea, City of Westminster, St. Marylebone, Stoke Newington, Hampstead, and Islington; and the highest rates in Hammersmith, City of London, Shoreditch, Stepney, Poplar, and Lewisham.

## THE SERVICES.

### IMPERIAL YEOMANRY.

In addition to the list of South African War Honours published in THE LANCET of Oct. 5th the following names should be noted:—

*To be Companions of the Distinguished Service Order:* Captain Percival Davidson, Medical Officer, 5th Battalion; Captain W. J. Naismith, Medical Officer, 6th Battalion; and Captain Ernest Hopkinson, Medical Officer, 15th Battalion.

### ARMY NURSING SERVICE.

*To have the Decoration of the Royal Red Cross:* Superintendents Miss M. Thomas, Miss S. J. Browne, Miss E. A. Dowse, Miss S. E. Webb, Miss S. E. Oram, and Miss A. Garriock; Nursing Sisters and Acting Superintendents Miss L. W. Tulloh and Miss L. M. Stewart; and Nursing Sisters Miss E. T. Noble, Miss A. S. Bond, Miss J. Hoadley, Miss M. G. Hill, Miss E. Nixon (New South Wales), Miss A. Bidsmead (South Australia), and Miss J. M. N. Williamson (New Zealand).

### ARMY NURSING SERVICE RESERVE.

*To have the Decoration of the Royal Red Cross:* Nursing Sisters Miss J. E. Skillman, Miss A. B. Smith, Miss A. B. Trew, Miss E. H. Beecher, Miss A. Knaggs, Miss J. Southwell, Miss E. McCall Anderson, Miss E. M. McCarthy, and Miss M. E. Greenham.

### ROYAL NAVY MEDICAL SERVICE.

Fleet Surgeon John Lyon has been placed on the retired list at his own request, with permission to assume the rank of Deputy Inspector-General of Hospitals and Fleets. Dated Sept. 14th, 1901.

The undermentioned Fleet Surgeons have been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets:—Michael FitzGerald, C.M.G. (dated Sept. 1st, 1901), and Robert Bentham (dated Sept. 2nd, 1901).

The undermentioned qualified candidate for the Naval Medical Service has been appointed to be Surgeon in His Majesty's Fleet:—Pierce Leslie Crosbie.

The following appointments are announced:—Deputy Inspector-General T. D. Gimlette to Plymouth Hospital. Fleet Surgeons: C. W. Buchanan-Hamilton to the *St. Vincent* and E. W. Luther to the *Prince George*. Staff Surgeons: H. Meikle to the *Indefatigable*; J. Andrews

to the *Prince George*; W. Bett to the *Minerva*; P. V. Jackson to the *President* for a three months' course of hospital study; W. G. K. Barnes to the *Briton* and E. R. Dimsey, D.S.O., to the *Resolution* and to the *Formidable* on commissioning; and A. Maclean to the *Pembroke* for a three months' course of hospital study. Surgeons: P. L. Crosbie to the *Duke of Wellington* for Haslar Hospital; W. B. Maurice to the *Colossus*; and R. W. Stanistreet to the *Trafalgar*.

### ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel T. F. MacNeece has been transferred to the medical charge of the Station Hospital at Nowshera. Captain C. Dalton, invalided home from South Africa after being dangerously wounded, has gone to Sierra Leone at his own request for a second tour of service in West Africa and has been posted to the Station Hospital, Tower Hill. Lieutenant M. G. Stirling is posted to the Dépôt, Aldershot. Lieutenant S. Mason has embarked for South Africa. Lieutenant-Colonel H. H. Stokes, Senior Medical Officer at the Curragh, will, on retirement, be retained in his present post as a retired officer temporarily employed. Captain Mansfield assumes medical charge of the Royal Field Artillery, Mounted Infantry, Royal Engineers, District Staff, and details, Marlborough Lines, Aldershot. Lieutenant J. H. McGregor has embarked for Barbados.

### INDIAN MEDICAL SERVICE.

Lieutenant-Colonel William Allason Simmonds, Bengal Establishment, and Lieutenant-Colonel Charles Adams-Madras Establishment, have been transferred to the half-pay list.

### VOLUNTEER CORPS.

*Rifle:* 1st Volunteer Battalion the Queen's (Royal West Surrey Regiment): Surgeon-Lieutenant J. Wayte to be Surgeon-Captain. 4th (Perthshire) Volunteer Battalion the Black Watch (Royal Highlanders): Surgeon-Captain C. W. Howatson resigns his commission.

### VOLUNTEER MEDICAL STAFF CORPS.

The Glasgow Companies:—Surgeon-Lieutenant-Colonel Bruce Goff, retired, late 2nd Volunteer Battalion Scottish Rifles, to be Honorary Surgeon-Colonel on appointment as Honorary Commandant. Surgeon-Lieutenant R. T. Halliday to be Surgeon-Captain; John Wright to be Surgeon-Lieutenant.

### SOUTH AFRICAN WAR NOTES.

The following have been discharged from hospital to duty:—Lieutenant F. Ashe, R.A.M.C., Major M. Kelly, R.A.M.C., and Lieutenant W. H. Odum, R.A.M.C.

Civil Surgeons C. L. Dunne, J. C. Caldwell, J. H. Stuart, and S. H. Clarke are returning home in the steamship *Victorian*.

Colonel W. L. Gubbins, R.A.M.C., and Civil Surgeons W. Faull and H. M. Roberts are returning home in the steamship *Bavarian*.

The following are also on passage home:—Major W. Hallaran, R.A.M.C.; Civil Surgeons G. A. C. Casalis (?) and D. G. MacArthur; Lieutenant-Colonel R. Vandeleur-Kelly, New South Wales M.S.C.; Major W. B. Nisbet, Queensland M.S.C.; also Captain N. Marden and Civil Surgeons Dunn, Simpson, Lowe, Brew, and Collins in the *Nubia*.

Among the casualties reported in the action in which Colonel Kekewich was recently engaged appears the name of Surgeon-Captain Kid (?), R.A.M.C., who was wounded in the left hip. He is not in danger.

### SOUTH AFRICAN AFFAIRS.

There seems to be little or no change in the military situation. From the last official summary of casualties and losses in the field force in South Africa we gather that the total casualties from all causes reported during the month of September amount to 98 officers and 2710 men, of whom, however, nearly 2000 have been sent home as invalids. Since the beginning of the war the total losses amount to some 75,000 men, but this includes all those invalided home, large numbers of whom have since rejoined their regiments in South Africa. The number of those who have died, or have been discharged the service as unfit, or have been reported missing since the beginning of the war amounts to over 22,000 men, of whom some 17,500 have actually died. Considering the time the campaign has lasted (two years), the constant fighting, and the large size of the force in the field, these losses may not perhaps, from a statistical standpoint, be regarded as heavy, especially when compared with those of other important campaigns in Europe and America. But

it must be admitted that the sacrifice of life and money entailed by the conflict in South Africa has nevertheless been deplorable. It is a poor sort of consolation perhaps, but we are glad to notice that the deaths from disease among officers and men in South Africa reported during the past month only amount to 142, as compared with 241 who have either been killed in action or have died from their wounds.

#### MR BURDETT-COUTTS AND THE ARMY MEDICAL SERVICES.

Mr. Burdett-Coutts has made a long and vigorous onslaught in the daily press on the new reform scheme for the Army Medical Services, a title which he regards as the most egregious misnomer of all that this war has produced. If the country is deluded into the belief that the Army Medical Service has been reformed, is it not, he asks, adding one more to the many dangerous shams from which we have already suffered so terribly, and which, if not unmasked, will assuredly bring new and worse disaster? He has apparently no misgivings as to the absolute correctness of his own views and statements and uncommonly little tolerance of those of other people. He does not spare anyone, civil or military, and least of all the Secretary of State for War, on whom he first and foremost casts the blame for having drawn up and laid before the Committee a scheme which he has raked with the fire of his criticism through several columns of his published communication. We have not questioned his sincerity and no one who has read his contributions to the controversy about the South African hospitals can doubt the heat and vehemence with which he has thrown himself into it. We are not particularly concerned to defend the report of Mr. Brodrick's Committee, but it is surely not open to reproach because it does not provide for every possible contingency that may arise hereafter. Mr. Burdett-Coutts has written, it must be admitted, many bitter things about the Army Medical Service in the course of this controversy and he has emphatically pronounced his judgment on several matters as if these did not admit of any doubt or were not susceptible of any other interpretation than such as he chooses to put upon them.

#### IMPERIAL YEOMANRY HOSPITALS.

The Imperial Yeomanry Hospital at Pretoria was transferred on Sept. 30th to the military authorities, and Lieutenant-Colonel Kilkelly, C.M.G., Grenadier Guards, the medical staff, and the nurses and orderlies (who were not then sailing for England) were transferred to the Imperial Yeomanry Hospital at Elandsfontein, where 294 patients, including nine officers had been under treatment. At the date of transferring the Pretoria Hospital 5227 in-patients, including 466 officers, and 1095 out-patients had been treated in that section of the Imperial Yeomanry hospitals, and 77 officers had been under the care of its medical staff in the Chesham Convalescent Home at Johannesburg opened by the Imperial Yeomanry Hospitals Committee. This is in addition to 5000 patients treated by the Imperial Yeomanry Field Hospital and Bearer Company, 6093 patients treated in the Imperial Yeomanry Hospital at Deelfontein, and 1066 at MacKenzie's Farm Branch, 19,852 patients have been treated at the Imperial Yeomanry hospitals up to Sept. 30th.

Dr. Rolleston and the other members of the Imperial Yeomanry hospitals, whose services are not required at Elandsfontein, are returning home in Government transports and hospital ships, and are expected at Southampton during the present month.

#### THE LATE AMIR OF AFGHANISTAN.

The death of the Afghan Amir has been officially confirmed. The news, which could not have been altogether unexpected, for the Amir had of late frequently suffered from gout complicated with other ailments, has nevertheless come at an inopportune moment. The Amir became seriously ill on Sept. 28th and he died at an early hour on the morning of Oct. 3rd last. It is regarded as almost certain that his son Habibullah Khan—who is at Cabul and is a man of ability and has already been entrusted by his late father with the functions of government—will succeed him. The officers of the Army Medical Services, one way and another, have had in the past a good deal of experience of field service in Afghanistan. The relations between the Indian Government and the late Amir, who was an able man of statesmanlike character and determined will, were very amicable and there is every prospect, it is believed, of these relations being continued if his eldest son and heir holds the reins of power.

#### DEATHS IN THE SERVICES.

Major John Keatly, R.A.M.C., suddenly at Bombay on

Sept. 6th, aged 41 years, from ptomaine poisoning. He was in charge of the station hospital at Kasauli, and assisted Major Semple in the administration of the Pasteur Institute which was established there in the summer of 1900. Major Keatly was selected for Kasauli on account of his special surgical knowledge. He was attached to the Oxfordshire Light Infantry in the Frontier campaigns of 1897.

Surgeon-Major-General W. A. Thomson, A.M.S. (retired), Honorary Physician to the King, aged 71 years.

Lieutenant J. B. Hall, R.A.M.C., at Harrogate. He entered the service as Lieutenant in June, 1900.

#### PRESENTATION OF WAR MEDALS.

Major-General Sir H. Trotter, K.C.V.O., commanding the home district, will present the medals on Sunday, Oct. 27th, at 1 P.M., in Wellington Barracks, to the officers, non-commissioned officers, and men of the London companies, Volunteer Medical Staff Corps, who have recently returned from active service in South Africa. Five officers and about 80 non-commissioned officers and men volunteered and were sent out with the following units: Royal Army Medical Corps, Yeomanry Field Hospital and Bearer Company, Rhodesian Field Force, and Paget's Horse. Three officers and 18 non-commissioned officers and men are still in the field.

#### THE LATE LIEUTENANT G. H. IRVINE, R.A.M.C.

A memorial tablet subscribed for by the staff of the Bristol Royal Infirmary and other friends has been placed in the chapel of that institution to the memory of Lieutenant G. H. Irvine, R.A.M.C., who was formerly a student in the infirmary and who was killed in action in South Africa in March, 1900.

## Correspondence.

"Audi alteram partem."

### "THE NEW CHIEF MEDICAL OFFICER FOR CAPE COLONY."

To the Editors of THE LANCET.

SIRS,—I am directed to inform you that an article which appears on page No. 539 of the issue of THE LANCET for August 24th, 1901, and headed "The New Chief Medical Officer for Cape Colony," has been brought to the Colonial Secretary's notice, and that while Mr. Graham is aware of the tenor of the anonymous letters which appeared in *Greater Britain*, a weekly publication which was only issued during the short period from July 22nd to August 24th last, he has advisedly disregarded them as unworthy of any serious consideration and does not contemplate entering upon a discussion of the question as therein raised. I am, however, to state that although the article which appears in your journal carefully abstains from any expression of opinion as to the correctness or otherwise of the statements made in the colonial newspaper, Mr. Graham nevertheless views with no little concern and with much regret the attitude assumed by you of implying that the allegations made in *Greater Britain* might possibly be founded on fact, a circumstance which is far from being the case. I am also to state for your information that no representation has been made to the Government which would justify the statement contained in the article in question that "the appointment has not been favourably received by the medical profession."

I am to add that Dr. Alfred John Gregory, M.D., B.S., D.P.H., &c., &c., was employed in the Health Branch of the Colonial Secretary's Department in public health and sanitation work during the period from Dec. 18th, 1891, to Dec. 1st, 1893, but without any status; that on the latter date he was appointed to the fixed establishment of the Civil Service and to the post of assistant medical officer of health for the colony, an office which he held continuously until August 1st, 1900, at which date the medical officer of health, Dr. George Turner, was detached for duty under the Transvaal Government; that Dr. Gregory was thereupon appointed to act as medical officer of health; and that at the end of February, 1901, Dr. Turner having been appointed permanently to the office of medical officer of health for the Transvaal, Dr. Gregory was then confirmed by my Government in the office of medical officer of health for this colony.

It is not the Colonial Secretary's intention to dilate upon the eminent services which have been rendered by Dr. Gregory to this colony, which, quite apart from consideration of his status in the Civil Service, have fully justified the Government in conferring upon him in recognition thereof that promotion. I am also to inform you that Dr. Gregory possesses, *inter alia*, the following qualifications—viz., Doctor of Medicine; Bachelor of Surgery; Member of the Royal College of Surgeons, England; Diploma in Public Health, Royal College of Physicians and Surgeons, England.

I am to request that you will kindly cause this communication to be published in the next issue of your journal.

I have the honour to be, Sirs,

Your obedient servant,

FRED. WHICHAM,

Assistant Under Colonial Secretary.

Colonial Secretary's Department, Cape Town, Sept. 16th, 1901.

\*\* We have great pleasure in inserting the above letter which is a satisfactory answer to the statements upon which we commented in our issue of August 24th. We then wrote as follows: "We certainly think that no one should be appointed to the position who is not hall-marked as an expert in sanitary science. Dr. Gregory may be this for all we know." We are glad to learn that Dr. Gregory has the Diploma in Public Health of the English Conjoint Board.—ED. L.

## DIFFERENTIAL DIAGNOSIS BETWEEN SMALL-POX AND CHICKEN-POX.

*To the Editors of THE LANCET.*

SIRS,—As we again have small-pox amongst us and there seems still to be a difficulty in the diagnosis between small-pox and chicken-pox, as proved by the fact that one district has insisted on the notification of chicken-pox, will you permit me to point out a well-known method by which these diseases can be easily differentiated, but which seems to be forgotten, or ignored, when we have small-pox epidemics?

The fact to which I refer is that the vesicles in chicken-pox are unilocular, whilst in small-pox they are multilocular. The practical result of this pathological fact is, that if a chicken-pox vesicle be pricked with a needle its contents can be completely evacuated and the cell will collapse, whereas in small-pox if you make 20 pricks with a needle the vesicle will not collapse, because, being multilocular, it is impossible to empty it.

I am, Sirs, yours faithfully,

GEORGE STEELE PERKINS.

Wimpole-street, W., Oct. 4th, 1901.

## TUBERCULOSIS AND HEREDITY.

*To the Editors of THE LANCET.*

SIRS,—There has come to be a strong popular impression that an inherited influence in the causation of tuberculosis has been disproved by the discovery of its dependence on organisms received from without. The belief is apparently due to some sweeping unqualified statements which have been made that we must discard the idea of actual inheritance of the disease. This, of course, is true, but the facts still remain which have led to the belief that an inherited condition influences the occurrence of the disease. These facts are equally explained by the assumption that that which is inherited or transmitted is a relatively low power of destroying the tubercular organisms which have found entrance into the system. I think that the facts not only remain but retain their significance, even when all allowance is made for the effect of infection from one member of a family to another. Indeed, such relative disability enables us to understand the greater influence of exposure to infection in some families than in others. Moreover, we must assume an analogous acquired disability in order to understand the way in which tuberculosis is a special sequel to some acute diseases or may follow grave deterioration of general health.

The question is important in regard to life insurance. It is said that some offices have ceased to take cognisance of a family history of tubercle in consequence of the widespread impression above mentioned—that an hereditary influence has disappeared from the medical creed. The change seems, however, scarcely credible, since the customary practice is based upon definite experience, on facts which may have to

be differently explained but cannot be destroyed by the new knowledge.

The question is also of importance from a practical point of view. If such relative disability may be inherited the members of such families should secure, as far as possible, occupations that involve an open-air life, in order to reinforce the power that is deficient.

I am, Sirs, yours faithfully,

Queen Anne-street, W., Oct. 7th, 1901. WILLIAM R. GOWERS.

## THE TREATMENT OF TUBERCULOSIS.

*To the Editors of THE LANCET.*

SIRS,—Much has been written the last few weeks on the important subject of tuberculosis. I have quite recently read six very clear and instructive addresses on the Treatment of Pulmonary Consumption by Hygiene, Climate, and Medicine, by Dr. J. H. Bennett, which appeared in THE LANCET in September, October, and November, 1896. Dr. Bennett says that phthisis is a curable disease—indeed, in the early stage a very curable disease—under proper treatment. His views and opinions are so precisely similar to those promulgated at the present day that I could not refrain calling the attention of my medical brethren to the fact that, although 35 years have passed, we had gentlemen at that date in our profession who were as much enlightened in the treatment of phthisis as we are at the present time.

I am, Sirs, yours faithfully,

Abingdon, Oct. 4th, 1901.

S. I. BAKER.

## SANITATION IN WEST AFRICA.

*To the Editors of THE LANCET.*

SIRS,—In these days of many theories, some sound and others extremely speculative, the question of their practical application has to a regrettable extent been lost sight of in many instances, and has been exceptionally so in the important question of West African sanitation. All honour is due to the many workers in the field of malarial research, but unfortunately the methods of prophylaxis recommended, though excellent in theory, are in most cases impossible of execution. In laying down rules for the prevention of malaria, it appears to have been forgotten that in many parts of the coast the mosquitoes bite freely in the daytime, and also that as the sun rises at 6 A.M. and sets at 6 P.M. all the year round, everyone would have to go into his house and to remain there for 12 hours out of the 24, if the rules were carried out. For the sake of illustration, suppose the gnats at home were infected and were as plentiful as they are out here. What would be thought of a sanitary scheme which involved everybody in England staying in his house from six in the evening to six in the morning? Besides this, the nature of the country, the thousands of natives (who have practically all suffered from malaria), the small number of whites, the fact that these have their work to do—which is just as hard and takes up as much of their time as in England or more—and the expense which would be incurred in their execution, place many of these suggestions outside the bounds of practical utility. Short of carrying out these schemes in their entirety, the following fundamental sanitary principles based on practical experience should, in my opinion, be laid down.

No native huts should be allowed within half a mile of European bungalows, with the exception of the servants' quarters, which should be placed to leeward and as far away as convenient, and the servants themselves should be dosed regularly with quinine under European supervision. All Europeans should take quinine regularly. Mosquito-nets should always be used; if there are no mosquitoes, the nets keep out the damp, and though one cannot help being bitten, safety for eight hours out of the 24 is worth trying for.

The houses should be built broadside to the prevailing breeze which blows almost constantly every afternoon throughout the year from the sea. They should be so constructed that by opening the doors and windows every nook and cranny could be flushed out for an hour or two every day by the wind and the mosquitoes which lurk in quiet corners swept out. No house should be more than one room deep; this is essential for complete through ventilation. They should not be too large—a two-man bungalow should be the extreme, as the greater the number of Europeans who live under one roof the greater the number of natives who go in and out and the greater the risk of those mosquitoes which hang about the house in spite of all precautions becoming

infected. There should be a verandah at least 10 feet wide to protect the walls from the sun and rain. And lastly, all houses should be raised on piles, and a layer of concrete should be put over the whole site. Thick bush and long grass should be kept down in the neighbourhood of the house and the ground should be drained and levelled.

Were the above rules carried out I am convinced that the number of cases of malarial fever would be far fewer. The water-supply can be obtained by storing rainwater collected from the roofs in large tanks; these should be thoroughly cleaned out and lime-washed at least every six months. The disposal of excreta is best effected by Moule's earth-closets; old kerosine or paint drums make excellent pans, which should be emptied daily. Where anopheles pools are found they should be filled up or drained if labour is available, at any rate those in the immediate vicinity of the house. In conclusion, I may add that even if malaria can be stamped out West Africa, owing to the peculiarities of its climate, will still remain a part of the world where the white man can only live for a year or two at a time and then will have to go to a temperate climate to recruit, before he can again resume his duties on "the coast."

I am, Sirs, yours faithfully,

S. W. THOMPSTONE, F.R.C.S. Edin., D.P.H. Camb.  
Old Calabar, West Africa, August 29th, 1901.

## "WORKHOUSE NURSING."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Oct. 5th, p. 940, Dr. F. S. Toogood makes the following extraordinary charge against me. He says: "Through the courtesy of Miss Louisa Twining I have been able to confirm that which I had previously suspected—viz., that Mr. F. R. Humphreys has annexed and labeled as 'my (Mr. Humphreys's) scheme' the plan formulated by Miss Twining and published by her in July, 1901." Your correspondent has discovered a mare's nest and his imagination has supplied the necessary local colour. There is not the slightest connexion between my scheme and that of Miss Twining, and it is absolutely incredible that Miss Twining could have led Dr. Toogood to think so.

I have before me as I write a printed form dated Sept. 23rd, 1901, from the editor of one of the great monthly magazines in which the editor says that he "will have much pleasure in giving his earliest consideration to the article kindly proposed to him by Miss Louisa Twining on Nursing in Poor-law Infirmaries by Dr. Humphreys." No one would give an introduction to another person for the purpose of assisting him to publish an article which he has been robbed of. I must therefore call upon Dr. Toogood at once unconditionally to withdraw his charge against me, and in order to afford him an opportunity of so doing I am sending him a copy of this letter in a registered envelope. I am also sending a copy to Miss Twining.

In his previous letter he made a charge against the Workhouse Infirmary Nursing Association which I asked him to withdraw. He has neither done this nor substantiated his statements and he adds to his flagrant conduct by making fresh assertions in his last letter. Let him withdraw his charges against the association or substantiate them.

I am, Sirs, yours faithfully,

Fellowes-road, N.W., Oct. 6th, 1901.

F. R. HUMPHREYS.

To the Editors of THE LANCET.

SIRS,—I am not going to enter upon a literary controversy, but my attention having been drawn to a letter from Dr. F. S. Toogood in which I am concerned, I must ask you to allow me to say that in writing to him I merely expressed my satisfaction on finding that Mr. F. R. Humphreys was advocating the plan which I had so often suggested for the amalgamation of the sick in central workhouses, which I considered the only remedy in the case of the small country ones. It cannot be of the slightest importance to anyone to know who first started the idea and I regret to see such a question named. Having worked with the association for 22 years, may I add my conviction that all the accusations made against it are absolutely unfounded?

I am, Sirs, yours faithfully,

Oct. 7th, 1901.

LOUISA TWINING.

## "THE ELECTROLYTIC TRANSMISSION OF SULPHUR."

To the Editors of THE LANCET.

SIRS,—In reply to Dr. Longridge's letter of Sept. 28th I consider that he is wandering from the subject altogether. My "discovery" applies only to the Harrogate sulphur waters, and if he can prove that anyone else made it before me I am willing to drop the word. Till then I stand by my guns.

I am, Sirs, yours faithfully,

Harrogate.

FRANCIS WM. SMITH.

## A MEDICO-LEGAL SOCIETY.

To the Editors of THE LANCET.

SIRS,—I venture to suggest the formation of a medico-legal society, the chief object of which should be the discussion of questions of a legal character arising in every branch of medical work. No doubt there are many teachers of medical jurisprudence, medical barristers, and others willing to form such a society, the advantages of which are obvious.

I am, Sirs, yours faithfully,

Oct. 7th, 1901.

M.D., D.P.H., Barrister-at-Law.

## THE GENERAL MEDICAL COUNCIL AND REGISTRATION.

To the Editors of THE LANCET.

SIRS,—Allow me to submit a case in illustration of the hardship of the present regulations, or want of regulations, of the General Medical Council on the registration of students commencing their course of medical study. My son is studying at a large public school which provides a course of study in science, especially arranged for the preliminary scientific (M.B.) and intermediate science examinations at London University. The school is accordingly recognised by the Conjoint Board of the Royal Colleges of Physicians and Surgeons for the commencement of professional study. Having passed his matriculation examination my son has entered on the science course at this school, but his application to the General Medical Council to be registered is refused on the ground that the school, though recognised by the licensing bodies, has not been approved by the Council. It seems, therefore, that the result of the want of understanding at present painfully evident between the Council and these bodies is to inflict grave hardship and injury upon individual students who may be deprived of a year's counting in their curriculum. Nor is it easy to ascertain what institutions are at the present time approved by the Council. The election of Direct Representatives is about to take place. Can nothing be done to bring the authorities which preside over medical education into agreement on some equitable terms? They disagree; we suffer.

I am, Sirs, yours faithfully,

London, Oct. 7th, 1901.

M.D., &c.

## "THE RECONSTITUTION OF THE ROYAL ARMY MEDICAL CORPS."

To the Editors of THE LANCET.

SIRS,—With great interest I opened THE LANCET this morning to see what you thought of the War Office Committee's scheme for improvements in the Royal Army Medical Corps and it was with not a little astonishment that I read your editorial views on the subject. I think that I am but expressing the views of nine-tenths of the officers of the corps when I say that Mr. Brodrick has made an honest and sincere effort to improve the medical service of the army, but that unfortunately in this particular case he has sought advice from men who, judging from their proposals, seem to have but an imperfect idea both of the conditions under which the corps works and of the administrative difficulties inseparable from working a medical *personnel* scattered all over the world.

Within the last week I have taken the opinion of at least 40 officers of the corps on this scheme, and I can assure you that not one of them thinks it other than unworkable. The only bright spots in the proposals are the granting of adequate rates of pay and the simplification of the entrance examination. The great blots on the scheme are the abrogation of the right to retire after 20 years' service on £1 a day; the failure to make the Advisory Board one which

can enforce its recommendations and not merely advise and supervise; the omission to lay down any minimum strength of officers and men for the corps; and the absolutely ludicrous system of periodical examinations. These latter, to my mind, constitute the worst feature of the scheme, for they indicate a system of distrust of the individual and the establishment of a series of inquisitorial tests only calculated to develop a class of book-worms and men well based in laboratory experiments and technique, but devoid of those clinical and manly attributes which are essential for the making of a good soldier-doctor. With the institution of these recurring examinations and periodical attendances at certain hospitals, it will be interesting to know how and by whom the foreign service is to be done, and how rosters for such service are ever to be kept. Much as I want to see the corps placed upon a sound footing, and, moreover, flourishing both in numbers and reputation, I fear that such will never be secured by any such *dilettante* and academic methods as are now proposed. And, what is more, I feel sure that no men worth having in the corps will ever consent to enter it on terms of such precarious tenure as are now offered to them in this tentative scheme. The more one reads the scheme and thinks over it the more one marvels how the 13 intelligent men who composed the Committee can have seriously put it forward as a remedy for the existing state of things. They seem to have lost sight of the fact that they are not legislating for students but for men as old as, and in some cases older than, themselves. The corps is full now of men eager to work and perfect themselves in their profession, but only lacking the opportunities owing to excess of foreign service and inability to obtain leisure leave. The *personnel* of the corps is right enough; it only needs an increased establishment to ease the pressure. The granting of adequate pay alone will do that and the rest will follow.

THE LANCET is an influential journal and it is much to be regretted if its editorial views fail to be in touch with the great mass of professional opinion. Certainly, in this particular case I think that a further examination of the scheme will suggest a modification of your expressed approval.

I am, Sirs, yours faithfully,

IMMUNE.

Oct. 5th, 1901.

\* \* We simply stated the general effect of first impressions which we received from a perusal of the report, and we said that the recommendations were in the nature of an experiment. The scheme is but a scheme and can be modified.—  
ED. L.

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

### *Henshaw's Blind Asylum.*

ARCHDEACON WILSON'S strictures on the care of the blind at Henshaw's Asylum drew forth a long defence of the institution in the *Manchester Guardian* of Oct. 4th, and on the 7th there was another letter from Archdeacon Wilson in which he made specific statements which show that there are many matters as to which improvement is desirable. It seems that when a surprise visit was made by His Majesty's Inspector he found "the state of the building unsatisfactory in point of cleanliness," which Archdeacon Wilson more than confirms from his own observation. The latter mentions "uncleanly arrangements for washing" and the "condition of the closets," as to which "details might be added which would be not only distasteful but disgusting." Supervision may also be improved if, as is stated, somewhere about 40 blind boys in one dormitory are supervised by a "blind man sleeping in an adjoining apartment," which is said to have been the case a month ago. "A sick-room of four girls, two of whom were very ill," was in charge "of a nearly blind woman who could not perceive how dirty the beds were." Various other points were mentioned. The food seems to be sufficient and of good quality, but when Archdeacon Wilson was there no knives and forks were in use, but only spoons, and "the result was that all were fed on minced meat," and he adds, "think of the awful sameness." Other matters, as education, work for the blind, &c., are touched on which seem to be in need of revision, but those mentioned above are important in their relation to health and morals. It appears that there are no women on the committee,

although the statements as to the girls' sick-room and the picture of the comfortless sitting-rooms and of "the poor old women sitting silent on the hard benches," show that there is room at the asylum for the sensible but sympathetic work of educated women. The meetings of the committee are probably occupied chiefly with the business matters of the institution, so that with no "wilful neglect or breach of trust" they may be open to the charge which Archdeacon Wilson makes of lack of observation, of special knowledge, "and it may be lack of control of their officials." Let it be hoped that the prominence now given to the asylum will result in improved treatment of the blind and the increased prosperity of the institution.

### *Less Cubic Space for Lascars than for Whites.*

At a meeting of the Manchester Port Sanitary Authority held on Oct. 7th it was reported that during the month of September 136 vessels had been examined, in 28 of which defects or insanitary conditions were found. Dr. J. Pringle, the medical officer, had inquired into a case of overcrowding on a vessel carrying a Lascar crew. In one compartment of the fore-castle certified to carry 14 white men there were 16 Lascars, and in another certified for two white men there were four Lascars. The captain stated that the cubic space and floor area which were required by the Indian Government were provided. The boat originally carried a white crew and it seems that 16 Lascars are considered equal to 12 whites, and in this case 20 had the accommodation for 16 whites. It is said that the Board of Trade standard of accommodation for white men of 72 cubic feet, which is not over liberal, did not apply to Lascars. The latter are presumably employed for the sake of economy, but it is scarcely to be expected that the overcrowding of coloured men will increase their efficiency or tend to the true economy which is promoted by health and vigour.

### *Salford Cottage Homes.*

Salford is making provision for her pauper children away from the injurious influences and associations of the workhouse. The foundation-stone of cottage homes for children was laid on Sept. 19th at Culcheth, in the open country, where 45 acres of land were bought for £4500. The estimated cost of the work when completed is £63,711. There are to be 11 semi-detached homes for 12 children each, with rooms for the foster-mother, and two single homes accommodating 12 each. There will be an infants' school and a mixed school to accommodate 399 boys, girls, and infants, and a hospital for 16 children and the requisite staff. There will also be playgrounds, and the elder boys will be taught trades and the girls sewing and housework. The plans have been arranged to admit of extension. The work is to be completed in two years. At a tea given after the ceremony Mr. W. Moorsom, assistant inspector of the Local Government Board, spoke of the gratification he had felt at the condition of the children at the Chorlton Board's Styal Cottage Homes. He also spoke with equal approval of the "non-poor-law homes" established by the Wesleyan body at Edgeworth. Mr. Alderman Mainwaring, chairman of the Chorlton Board, said that "he had come to the conclusion that pauperism was not hereditary." No doubt the children of paupers became paupers from infection, if the term may be so applied, as phthisis is often passed from parent to child, and the tendency for the children to drift to the workhouse, as was the rule in the old days, will be checked if only they are preserved from its associations during childhood.

### *Infectious Diseases Hospital for Preston.*

At the meeting of the Preston Town Council on Sept. 26th a motion was passed in favour of the erection, at a capital outlay of £20,000, of an infectious diseases hospital. From January to Sept. 24th, in addition to cases of typhoid fever, diphtheria, erysipelas, and other infectious diseases, the Health Committee had had to deal with 1448 cases of scarlet fever. In the discussion on the proposal Dr. Browne said that every year typhoid fever was present in the town; every winter there was a certain amount of diphtheria, while scarlet fever, seldom absent, returned every three or four years with renewed vigour. "If the members of the council could go with him on his rounds and see the results accruing from non-isolated cases he was positive that not a single objection to the expenditure would be forthcoming."

### *The Drought.*

There was a heavy rainfall on Oct. 5th and 6th on the Longdendale gathering grounds, which augmented the stock

of water in hand by 141,000,000 gallons and raised the estimated supply from 21 days to 25 days. It seems as if the drought were coming to an end at last, but the same has been said before only to be falsified by the event. There is abundance of water in Thirlmere, but the quantity supplied must remain as it is till more pipes are laid.

Oct. 8th.

## WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

### *Conferences on Tuberculosis at Cardiff and Swansea.*

THE Mayor of Cardiff began his year of office by setting before his fellow-townsmen the special claims of the Cardiff Infirmary and by successfully wiping out within a few months a debt upon the institution of £12,000, and he has made the closing weeks of his official year memorable by convening a conference to discuss the question of the prevention of tuberculosis. This conference, which met at the Town Hall, Cardiff, on Oct. 3rd, was a most representative gathering of men from every part of South Wales and Monmouthshire, about 500 persons being present. Lord lieutenants, high sheriffs, mayors, chairmen of county councils and of district councils, delegates from sanitary authorities, medical officers of health, and a large number of medical practitioners responded to the mayor's invitation. The meeting was addressed by Dr. Isambard Owen and Dr. Alfred Hillier, after which the following motion of Sir John T. D. Llewelyn and Dr. C. T. Vachell was unanimously carried:—

Dr. Isambard Owen and Dr. Alfred Hillier as representing the Central Committee, having explained the object of the Association it is resolved that a branch of the National Association for the Prevention of Consumption and Other Forms of Tuberculosis for South Wales and Monmouthshire be and is hereby formed.

Subsequent resolutions elected Lord Windsor (the Lord Lieutenant of Glamorganshire) as president, various ladies and gentlemen as vice-presidents, a treasurer, Dr. Eldon Pratt of Cardiff as secretary, and a large executive committee (the members of which include the presidents of the local medical societies and of the West of England and South Wales Branch of the Incorporated Society of Medical Officers of Health). The executive committee were empowered to collect subscriptions, to obtain approved public lecturers, to diffuse literature relating to the prevention of tuberculosis, and to promote the establishment on a partially self-supporting basis of open-air sanatoria for tuberculous patients. The subscription to the branch was fixed at 5s. per annum. At the close of the meeting Dr. W. G. Savage gave at the Cardiff and County Public Health Laboratory a very interesting description with the aid of lantern slides of some of the principal continental and British sanatoria. On Oct. 4th Dr. Isambard Owen addressed a large meeting at Swansea, when it was decided to establish an auxiliary branch to the South Wales and Monmouthshire branch created at Cardiff on the previous day. It was very noticeable both at the Cardiff and the Swansea meetings that the speakers lay and medical urged the importance of notification of cases of phthisis to the medical officer of health. The chairman of the Monmouthshire County Council (Alderman E. Grove) advised not only compulsory notification but also compulsory removal of phthisical patients to rate-aided sanatoria. The Health Committee of the Cardiff Corporation have for some time been active in the direction of the prevention of tuberculosis. About two years ago the medical officer of health (Dr. E. Walford) issued not only a general circular on the subject, but a memorandum was also sent to medical practitioners in the town offering free bacteriological examination of sputum and asking for voluntary notification of tuberculous cases coming under their care; a circular was at the same time sent to all purveyors of milk and cowkeepers pointing out their obligations under the Dairies, Cowsheds, and Milkshops Order of 1899 and offering the free application of the tuberculin test. In the year 1900 there were 322 deaths in Cardiff from various forms of tuberculosis, and in 84 cases disinfection was carried out by the sanitary authority at the request of medical practitioners or of relatives of the deceased person. There are no placards with regard to spitting distributed in Cardiff, but for several years past in the free libraries and museum of the town there has been prominently displayed the following notice: "The reading-room attendant has been instructed by the committee to expel from the building any person found spitting."

### *Llangyfelach Rural District.*

Mr. F. T. Bircham, general inspector of the Local Government Board for Wales and Monmouthshire, does not confine himself to Poor-law administration, but has recently been attending the meetings of some sanitary authorities in his district to whose notice he has brought some of their shortcomings. On Oct. 1st he told the Llangyfelach Rural District Council that the Local Government Board must have some definite promise that the council was providing an adequate water-supply for the district, sewerage schemes in particular parts of the district, and an isolation hospital. The chairman of the council protested that the authority was doing its duty in these matters, because drainage schemes should be preceded by an adequate supply of water, and that an arrangement had been made to obtain this supply from the Swansea Corporation upon completion of the new water-works in five or six years' time.

### *Bridgend Workhouse.*

The need of increased accommodation at the Bridgend Workhouse has been frequently during the last few years urged upon the board of guardians by the Local Government Board. In July last when a definite proposal to carry out the extensions was made it was defeated by a motion to defer the work for twelve months. Since then it has been decided to carry out a very small portion of the extensions by erecting a kitchen and laundry. As one of the most urgent needs of the institution is the provision of an infirmary, which it is estimated will cost about £5000, the Local Government Board will only sanction a loan for the erection of the kitchen, &c., on condition that the infirmary is also proceeded with very shortly.

### *Home for Consumptives at Bristol.*

At the meeting of the Bristol Board of Guardians held on Oct. 4th several members spoke very strongly on the necessity for procuring a site near Bristol and at once erecting suitable buildings both for the treatment of acute cases of phthisis and for patients in the early stages of the disease. In the meantime it was decided to continue the arrangement with the North London Hospital for Consumption at Hampstead whereby two beds in this institution are at the disposal of the board for a yearly payment of £105.

### *Devonport Infectious Hospital.*

At an inquest held at Devonport on Oct. 4th upon a child who had died in the Infectious Hospital it was stated that there was no mortuary in the hospital, a nurses' bathroom being used for that purpose. The coroner said that many schemes had come before the borough council for the enlargement of the hospital, and doubtless when the building was enlarged a mortuary would be provided.

Oct. 7th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

### *The late Bailie Pollard of Edinburgh.*

I REGRET to have to announce the death of Bailie Pollard, whose name was a household one in connexion with all matters bearing upon the public health and the sanitation of the city of Edinburgh. For close on 20 years Mr. Pollard had been connected in one or other capacity with municipal works in Edinburgh. In 1891 he became convener of the Public Health Committee of the Town Council in succession to Sir James Russell, and in 1894 he was elected a Bailie. As convener of the Public Health Committee Mr. Pollard's work was most important and deserves full recognition. He was an enthusiastic worker in the region of public health and spared no pains to make his knowledge of the subject as complete as possible. Mr. Pollard paid several visits to Germany in order to study the municipal institutions of that country. He was especially interested in the welfare of the fever hospital and its patients, and during the whole time that he was convener of the Public Health Committee he paid when in town a weekly visit to the hospital when he saw practically every patient in the house. He in this way became personally acquainted with every member of the medical and nursing staff of the hospital. He and his wife also took an interest in the wives and families of the men of the poorer class whom he came across in the hospital, visiting them in their own homes and doing all he could

to help them. Mr. Pollard threw all his energies into the scheme for building a new fever hospital at Colinton Mains. He, together with the city superintendent, travelled over a large part of Europe in order to become familiar with the latest improvements in hospital construction, so that the new hospital might be as suitably constructed and well-equipped as possible. The formal opening of the hospital was to have taken place in the summer, but was put off on account of Mr. Pollard's illness, and he has not lived to see the full completion of the work. During the last few years Mr. Pollard interested himself in the question of the stamping out of tuberculosis and he had suggested that when the new fever hospital was opened a portion of the old building in Infirmary-street might be set apart for the use of persons in the last stage of consumption and therefore sources of danger to the community. Mr. Pollard is survived by a widow and three young daughters. The funeral took place on Sept. 28th, and was attended by a large and representative gathering of citizens of all classes. Mr. Pollard was held in the highest respect and esteem both for his own and for his work's sake.

#### *The New Edinburgh City Hospital.*

The new City Hospital, in the construction of which the late Baillie Pollard was so keenly interested, is not yet ready for occupation, although the external fabric has been practically completed. The selection and insertion of the internal fittings cannot be done hastily in view of the demands of modern medicine, so that at least a year will elapse before the structure is ready for occupation.

#### *Glasgow University.*

At the meeting of the Glasgow University Court on Oct. 3rd Professor John Young intimated that on the recommendation of his medical advisers he had determined to ask permission to retire from the chair of Zoology which he has occupied for the long period of 35 years. In making this announcement Professor Young stated that he did so with great regret, but that the state of his health compelled him to take this step in the interests both of himself and of the university. While resigning his chair he hoped to be able to retain his position as keeper of the Hunterian Museum and to discharge all the responsibilities of that office. On behalf of the court Principal Story and Sir John Neilson Cuthbertson expressed profound regret at the prospect of Professor Young's withdrawal and trusted that the university would long enjoy the advantages of his services in connexion with the museum to which he had given so many years of earnest and ungrudging labour. In addition to the chair of Zoology, Professor Young has held for many years the Honeyman-Gillespie lectureship on Geology founded in 1876. He has been an ardent advocate of the proposal to erect this lectureship into a separate chair, but hitherto want of funds has made this impossible. It is probable that the present vacancy will be utilised to separate the two appointments. The patronage of the vacant chair is in the hands of the Crown. The income is about £800 per annum. The following appointments have been made by the University Court: Dr. James F. Gemmill to be Lecturer in Embryology, Dr. Charles Workman Lecturer and Examiner in Pathology, Dr. John Lindsay Steven Lecturer and Examiner in Medicine and Clinical Medicine, and Dr. Magnus Maclean to be Additional Examiner in Physics for Degrees in Medicine and Science. The opening of the medical classes at the University and extra-mural schools is announced for Thursday, Oct. 17th. Ferguson scholarships of the value of £80 each per annum and tenable for two years have been awarded to William Rennie, M.A., of Edinburgh University, and to David Macfarlane Stewart, M.A., and Alexander Dunlop Lindsay, M.A., both of Glasgow University.

#### *Port Sanitary Authority for the Clyde.*

The recent outbreak of bubonic plague in Glasgow, followed as it was by an epidemic of small-pox, has caused the sanitary authorities to search for the weak points in their armour. One of these, it is urged, is the want of effective medical control over vessels entering the port. The jurisdiction of the Glasgow health authority, of course, begins and ends at the city boundaries, and a similar statement is true of the other municipal areas which fringe the banks of the Clyde. Thus the same vessel, in being moved, for example, from one dock to another, may, even on successive days, come under the claim of different authorities. In so far as any general supervision of vessels entering the Clyde is undertaken this is effected

at Greenock, where the customs authorities board vessels and report the presence of any infectious disease to the local health officer. These arrangements are admittedly unsatisfactory, and the Glasgow Corporation, with a view to remedy them, has applied for a provisional order to create the corporation the port sanitary authority for the river. During the past week an inquiry in connexion with this application has been conducted in Glasgow before Sheriff Jameson. The witnesses called in support of the corporation have included Dr. A. K. Chalmers (medical officer of the city), Professor John Glaister, Dr. E. W. Hope (medical officer of the city and port of Liverpool), and Mr. Mackenzie (general manager of the Clyde Trust). The burghs of Greenock and Govan, and various county councils having authority in the Clyde basin, appeared by counsel to oppose the application, some of them condemning such a proposal as unnecessary and others advocating the establishment of a joint sanitary authority. After several days' hearing Sheriff Jameson intimated that he should make his report to the Board of Supervision. The result has not yet been made public.

#### *Glasgow Parish Council.*

In his annual report to the Glasgow Parish Council Mr. John Carswell deals again with the alleged increase of lunacy. The figures of his report show that the local occurrence rate has increased from 44 per 100,000 in the years 1890-95 to an average of 64.9 since that period. But the real cause of this increase, Mr. Carswell argues, is the improved administration of the Lunacy Acts and a diminution of the prejudice against pauper asylums. The report also discusses the question whether the saving of life in childhood by protection from infectious and tuberculous disease helps to increase the number of insane in adult life, and here also a negative conclusion is arrived at and supported by argument.

#### *The late Dr. James McLintock.*

The death is announced of Dr. James McLintock, who was appointed a medical member of the Local Government Board for Scotland when that body was first established, and who only retired from the Board about three years ago. Dr. McLintock has left the record of his work written in much of the public health legislation now exercising such a beneficial influence throughout the country, and in this way he has well served both his own and successive generations.

#### *Glasgow Medico-Chirurgical Society.*

The office-bearers for the session 1901-1902 are as follows: President, Dr. W. G. Dun; vice-presidents, Dr. J. Lindsay Steven and Dr. A. E. Maylard; treasurer, Dr. R. Barclay Ness; editorial secretary, Dr. Hugh McLaren; general secretary, Dr. W. K. Hunter. The first meeting of the current session was held on Oct. 4th, when the President delivered his inaugural address, his subject being Blood-letting in the Treatment of Disease.

#### *Bequests to Glasgow Hospitals.*

Under the trust disposition and will of the late Sir William Laird a sum of £10,000 is allotted for distribution among various charitable institutions in the West of Scotland. The principal legacies are: Glasgow Royal Infirmary, £2000; Western Infirmary, £1000; Victoria Infirmary, Royal Hospital for Sick Children, and Asylum for the Blind, each, £500. The Merchants' House of Glasgow and the Alexandra Hospital, Coatbridge, also each receive £1000.

Oct. 8th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *The Mourne Water-supply for Belfast.*

SIR ROBERT MCCONNELL, Bart., D.L. (ex-mayor of Belfast), formally opened the new service reservoir at Knockbracken on Oct. 2nd. This is situated on the Saintfield-road, about five miles from the centre of the city of Belfast; it is in water surface 17½ acres and its capacity is about 100,000,000 gallons. The object of this reservoir is twofold: it maintains a steady pressure in the district of supply and it has sufficient water in store to keep up the supply when repairs are requisite on the aqueduct. From the Kiekel river (in the Mourne mountains) to the Knockbracken reservoir the length of the aqueduct is about 35

miles. In ordinary level ground the cut-and-cover mode of construction has been followed (16 miles), through mountains tunnels have been driven (seven miles), and valleys have been crossed by means of dips formed of steel (where the pressure is greatest) and cast-iron pipes (12 miles). The longest tunnel is three and a half miles through rock and the most difficult one was made under Slieve Donard mountain, near Newcastle, two and a quarter miles through granite and indurated Silurian rock, the latter being the most obstinate to penetrate. It took three and a half years to make this tunnel. At present the water will come from the Annalong river (a temporary cut having been made from that stream), but south of that river the works of the aqueduct are incomplete. In a few months the southern part of the aqueduct will be so far complete that the Annalong river will be laid under contribution. These streams will give 10,000,000 gallons per day for seven or eight months in the year, and by using this supply in conjunction with the reservoirs on the existing works sufficient water will be provided in the summer to tide Belfast over for several years, but it is intended, also, in the future to build two reservoirs, one in the "Silent valley" of the Mourne mountains and the other in the "Annalong" valley. Up to the present £700,000 has been spent and to complete the works in hand another £100,000 will be needed. To construct the "Silent valley" reservoir £250,000 will be required, and to develop the entire scheme (in order to bring in the waters of both rivers) a further sum of £300,000 will have to be expended, so making the grand total more than one and a quarter millions of money. By spreading the expenditure over a number of years the ratepayers have felt it very slightly. When the works are complete Belfast will possess an unlimited supply of good water.

#### Fermanagh Infirmary.

On Oct. 2nd, in the Town Hall, Enniskillen, the Earl of Erne opened a bazaar to raise sufficient money to allow the necessary improvement of the infirmary to be carried out on modern lines. All classes and creeds have combined to make the sale a success. The infirmary dates back to 1765.

#### The Irish University Question.

Dr. W. A. McKeown (Senator of the Royal University of Ireland) has published in the Irish press an article which, he thinks, proves that in relation to the medical profession Irish medical schools educate far more medical men than can find occupation in Ireland. In proof of his statement he publishes two tables:—

Table showing the Distribution of Persons holding Irish Medical Qualifications according to the Medical Directory of 1900.

	Resident in Ireland.	Resident in London.	Resident in England (provincial).	Resident in Wales.	Resident in Scotland.	Resident abroad.	In the Naval, Military, and Indian Medical Service.	Total.
Graduates of the Royal University of Ireland	568	135	379	29	9	114	279	1513
Graduates of the University of Dublin	361	65	283	12	1	122	190	1034
Licenses of Irish licensing bodies	1081	201	627	43	7	303	343	2605
Total	2010	401	1289	84	17	539	812	5152

This demonstrates that the medical graduates of the Royal University are greatly in excess of those of the University of Dublin, that the number of practitioners holding Irish qualifications and resident in Ireland is 2010, and that the number of practitioners holding Irish qualifications and resident outside Ireland is 3142; but as this table does not show fully the work done by Irish medical schools, as many students holding certificates of attendance at Irish schools and hospitals go to Scotland for their final qualifications, Dr. McKeown gives another table showing the medical practitioners resident in Ireland, chiefly educated in Ireland, who have taken qualifications elsewhere. These for practical purposes may all be regarded as Irishmen. Only a few

Scotchmen or Englishmen settle in Ireland and mostly in connexion with medical schools.

Licenses of Scotch licensing bodies	370
Licenses of English licensing bodies	29
Graduates of Scotch universities	66
Graduates of English universities	4
Graduates of colonial and foreign universities	8

Total 477

Further, a great many medical students educated in Ireland take qualifications from Scotch licensing bodies but settle outside Ireland. It is impossible to give the numbers of these. Dr. McKeown submits that these tables show that no additional facilities are required to induce students to engage in study for the medical profession. Existing schools should be better equipped, but no new universities, local or sectarian, are needed. The medical schools of Cork, Galway, Dublin, and Belfast could educate two or three times the number of students who at present resort to them. Galway, according to Dr. McKeown, has only supplied 16 medical graduates in 10 years and there is, therefore, no adequate reason why it should be maintained, the results being certainly not commensurate with the cost of keeping up the medical faculty of that college.

#### The Royal University of Ireland.

The final (M.B.) examinations of the Royal University of Ireland were held last week, the results being announced on Oct. 7th. The two inspectors of the General Medical Council, Dr. D. C. M'Vail (Crown Representative for Scotland) and Sir George Duffey, were present and closely watched all the modes of examination. It will be interesting to have their report.

#### Cork Hospital Saturday Collection.

The Cork Hospital Saturday collection was held under rather unfavourable circumstances as far as the weather was concerned, and for that reason it was expected that it would be a comparative failure. However, the street collections realised nearly as much as in the previous year, and it was a great source of pleasure to the ladies to find that the really poor were so ready to contribute what they could towards the support of the hospitals. Owners of large firms had collections made amongst their employes, and from that source rather large sums were received. Last year, mainly through the instrumentality of the Lord Mayor (Sir Daniel Hegarty), hospital aid associations were established, and through their instrumentality collections were made in some of the country towns. This year the operation of those associations has been extended and it is anticipated that the result will be a substantial addition to the resources of the various city hospitals.

#### Cork North Infirmary.

Mr. Denis Murphy has been appointed pathologist to the Cork North Infirmary.

Oct. 8th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### Infant Life Protection.

A LAY newspaper has commenced a campaign against the medical department which is charged with the protection of infant life. The fight is being waged in a series of articles written by a Parisian medical practitioner and the articles have created a great sensation. They affirm that the medical inspection of sucklings is very inefficiently carried out, that infants in the country who are brought up by hired wet nurses are very rarely inspected by the medical officer in charge of the department in question, and that the excessive mortality amongst such children is due to this cause alone. Numerous letters from inspecting medical officers have appeared in the newspaper in question, none protesting against these allegations, but, on the other hand, confirming them, while they declare that the lamentable situation is due to the exceedingly faulty organisation of the department concerned. Since 1874 there has existed in France a law called the "Loi Roussel" which provides for the medical inspection of children brought up in the country by hired wet nurses and that law deals both with children of town parents who have been confided to such nurses by their parents and with the children of women who may have left the country for the town to become wet nurses in various families and who have handed over their children during the time of their service

either to their relatives or to neighbours still resident in the village. The law also provides that every woman going to a city to take a place as nurse in a family should have a certificate from the mayor of her village saying that her last child was living and had reached the age of at least seven months, or else was being brought up in the village by a woman possessed of the necessary qualifications for carrying out this duty properly. Moreover, when she reaches the city the would-be nurse is not to be entered on the register until she has undergone medical examination which must state that she is suffering from no contagious affection and that she is in a proper state of health to furnish a plentiful supply of healthy milk. The supervision of the children remaining in the village, as I have just said, is confided to medical inspectors who are obliged to visit each child at least once a month, as well as when they are summoned by the nurse in charge, but, as a matter of fact, this department, which looks exceedingly well on paper, works very badly in practice. The woman who leaves her village to become a nurse in a town has no difficulty in getting a certificate from the mayor, who hardly ever refuses one lest he should become unpopular. No certificate is required from the medical man of the village, which is the only one that could have any value. The duties of the medical inspectors are very badly carried out and the remuneration which they receive for their work is quite insufficient. They only receive one franc for their monthly visit and the patient may very likely live seven or eight kilometres away from the residence of the medical man. Thus a medical man who had 30 nurslings on his list would receive 360 francs per annum and might very likely be obliged to travel more than 1000 kilometres to see them. It may be said that no medical man is obliged to undertake such a post, but, as a matter of fact, he is obliged to do so, because, supposing he refuses, even in a very poor village where there is difficulty in gaining his livelihood the mayor does not hesitate to put out advertisements for a young medical man to take the post, and such a post is generally snapped up, for a young practitioner who is just beginning his career imagines that he may in this way lay the foundation of a practice, and thus he renders the situation of the medical man already in possession even more difficult than before. Finally, this minimum fee of one franc is only payable to the medical man for his obligatory monthly visits. Any other visits which he may make at the appeal of the nurse are supposed to be paid for by the relatives of the child, who, however, often refuse such payment. Even if the visits of the medical inspector are made regularly the reports of the medical man are not of much use, for if he states that the child is being brought up in an improper manner his report produces next to no result. He can only send in such a report to the Prefect, and it is only after two or three such reports have been received that the Prefect at length decides to send a departmental inspector to interview the nurse. Very often such inspector is not a medical man and the only thing he can do is to make remonstrances, which are passed over in silence. The medical man ought to have the right to take away any child at once from the house of a nurse who is not doing her duty properly and to place such child in a departmental *crèche* pending the time that the Prefect can or will communicate with the relatives of the child. The Prefect of Police in Paris has been stirred up to action by the reports published in the newspapers and has just issued an order, but it will probably have no result. The Prefect, who is unable to make the necessary new laws, can do nothing but insist upon the rigorous application of the existing law—that is to say, the Loi Roussel—and the only thing which the order does is to insist upon the necessity of a certificate from the mayor for any nurse who comes to seek a situation in the city. As a matter of fact the mayor never refuses such certificate, and even if it is found to be false the penalty to which the mayor could be sentenced is so severe—viz., the sentence of hard labour—that the Government would not dare to sentence one who may be a faithful public servant for such a slight matter. If such a sentence were passed, it would frighten a great many women who would simply do without the certificate of the mayor and who would come to town without taking the trouble of getting put upon the register: they would seek a situation on a simply personal recommendation, and this recommendation would be considered quite sufficient by a number of families, and so the nurse would escape altogether from the medical control

which the Prefect of Police at present exercises over those whose names are on the register. As a matter of fact it is perfectly well known that out of 22,000 persons who annually take over the charge of nurslings in the country only 4000 have any authorisation from the Prefect to do so. 18,000 nurslings are annually given over to nurses known to their parents only by a simple recommendation and are without any prefectural control. The circular sent out by the Prefect in Paris, which makes admission to the register very difficult, will do nothing except to augment the number of nurses who are anxious to escape from it. It would have been more simple and much more rational to have made it necessary for a nurse to obtain, in place of the certificate of the mayor, a certificate from the local medical man, who is in a position to judge of the condition of health in which the nurse is. Such a medical man would be conscious of his responsibility and would have an interest in seeing that later the nurse brought up the child entrusted to her care in a proper manner so that his certificate would be justified.

#### *Unveiling of a Memorial to Pasteur.*

On Sept. 29th a memorial was unveiled to the memory of Pasteur at Arbois, his home. The memorial is the work of Monsieur Daillon, the sculptor, and Pasteur is represented seated. On the other side of the pedestal, which is severe in style, are two bas-reliefs representing respectively a group of vine-dressers and herdsmen, symbolising the services which Pasteur rendered to agriculture, and the other showing the operation of inoculation for hydrophobia. On the plinth is a medallion containing the effigies of the father and mother of Pasteur. The Minister of the Colonies, who presided at the ceremony of unveiling, finished his oration by saying that if throughout the world there is one popular Frenchman that one is Pasteur.

Oct. 7th.

## ROME.

(FROM OUR OWN CORRESPONDENT.)

#### *The Plague at Naples.*

THE official bulletins in regard to the plague at Naples show that no serious extension of the outbreak has yet occurred. On the evening of Oct. 5th no fresh case had been reported in the city for 10 days and it was expected that on the 6th Naples would be officially declared free from the disease. Many suspected cases, indeed, have been reported to the authorities both from the city itself and from the neighbouring centres of population, but with the exception of one case at San Giovanni a Teduccio (which was immediately isolated) none of these cases have proved to be plague. At present there are seven cases at Nisida actually under treatment, and 135 "contacts," the latter being in good health except one girl who has a rise of temperature and is being carefully watched. Several false alarms have also been sounded at Rome, but fortunately all have turned out to be entirely baseless. The task of disinfection at Punto Franco, the locality where the first cases were discovered, has proved a most difficult one to carry out effectually, on account of the legal questions as to compensation and the powers conferred by law upon the sanitary authorities to which it has given rise. The value of the merchandise, consisting chiefly of skins, bales of cotton, and grain, accumulated in the stores there amounts to many millions of francs, and the authorities are still apparently undecided whether the whole should not be destroyed. Meanwhile, the loss to Naples from stagnation of its commerce alone must have been immense, and the consequent misery amongst the poorer classes very great. The rag-dealers, for instance, who have been prohibited from practising their calling, are in dire straits and have had to appeal to the Government for relief. On the whole, however, the situation is not regarded as very serious and the most competent authorities, such as Professor Gualdi of Rome, consider that all danger is now practically at an end. Whether this optimistic view is justified must very soon be tested by events, the incubation period of plague being comparatively short and the diagnosis, once suspicion is aroused, not difficult.

Oct. 6th.

## Medical News.

**SOCIETY OF APOTHECARIES OF LONDON**—At the Primary Examination the following candidates passed in the subjects indicated:—

### PART I.

*Biology*.—J. C. Fletcher, Royal Free Hospital.

*Chemistry*.—H. W. Phillips, Manchester.

*Materia Medica and Pharmacy*.—G. C. M. Davies, Charing Cross Hospital; A. B. Gosse, Royal Free Hospital; G. H. Henry, Belfast; and P. S. Hopkins, London Hospital.

### PART II.

*Anatomy*.—R. S. Dollard, Royal College of Surgeons in Ireland; G. H. Henry, Belfast; A. C. Jenkins, London Hospital; and J. D. Staley, Manchester.

*Physiology*.—H. Bennett, Manchester; R. S. Dollard, Royal College of Surgeons in Ireland; G. H. Henry, Belfast; P. J. Martin, St. Bartholomew's Hospital; J. O. Sergeant, Leeds; J. D. Staley, Manchester; D. A. Stepany, Royal Free Hospital; and R. J. S. Verity, Charing Cross Hospital.

**UNIVERSITY OF DURHAM**.—At the Convocation held on Sept. 28th the following degrees and diploma were conferred:—

*Doctor in Medicine*.—Henry Edward Davison, M.B., B.S., B.Hy. Durh.; Herbert George Harris, M.B., B.S. Durh.; Henry Douglas Johns, M.B., B.S. Durh.; Albert Ezra Neale, M.B., B.S. Durh.; Vaughan Pendred, M.B. Durh., F.R.C.S.; Arthur Riley, M.B., B.S. Durh. (*in absentia*); Frederick William Rowland, M.B., B.S. Durh.; Alfred Edward Stevens, M.B. Durh.; Ralph Harry Vincent, M.B., B.S. Durh., M.R.C.P., and Leslie Herbert Walsh, M.B., B.S. Durh.

*Doctor in Medicine for Practitioners of 15 years' standing*.—William Robert Etches, M.R.C.S., L.R.C.P., D.P.H.; Charles Joshua Joseph Harris, L.S.A., M.R.C.S., L.R.C.P.; John Henry Harris, M.R.C.S., L.S.A., D.P.H.; Edwin Guy Hunt, M.R.C.S., L.R.C.P.; James Thomas Neech, L.R.C.P., L.M., L.F.P.S.G., D.P.H., and William Henry Wright, M.R.C.S., L.K.Q.C.P. Irel., L.S.A.

*Master in Surgery*.—Bertram Crossfield Stevens, M.D., B.S., F.R.C.S. Eng., L.R.C.P., L.S.A.; and George Grey Turner, M.B., B.S. Durh., M.R.C.S., L.R.C.P.

*Bachelor in Medicine (M.B.)*.—Curtis Crispin Adeniyi-Jones, College of Medicine, Newcastle-upon-Tyne; Arthur John Spiller Brandon, M.R.C.S., L.R.C.P., St. Thomas's Hospital; Clifford Harold Brookes, L.S.A., St. George's Hospital; Thomas Seymour Coates, College of Medicine, Newcastle-upon-Tyne; George Ernest Froggatt and Philip Gell Garrett, M.R.C.S., L.R.C.P., Middlesex Hospital; Charles Henry Gibson, College of Medicine, Newcastle-upon-Tyne; John Spencer Hall, M.R.C.S., L.R.C.P., St. Thomas's Hospital; Robert Simpson Hindmarch and Albert Ernest Hodge, College of Medicine, Newcastle-upon-Tyne; Ernest George Klumpp, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; Ernest Edward Norman and Alfred Parkin, College of Medicine, Newcastle-upon-Tyne; George Woodvatt Procter, M.R.C.S., L.R.C.P., Middlesex Hospital; Frederick Riddle Scott and John Ernest Sidgwick, College of Medicine, Newcastle-upon-Tyne; and Richard Thorne-Thorne, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital.

*Bachelor in Surgery (B.S.)*.—Curtis Crispin Adeniyi-Jones, College of Medicine, Newcastle-upon-Tyne; Arthur John Spiller Brandon, M.R.C.S., L.R.C.P., St. Thomas's Hospital; Thomas Seymour Coates, College of Medicine, Newcastle-upon-Tyne; George Ernest Froggatt and Philip Gell Garrett, M.R.C.S., L.R.C.P., Middlesex Hospital; Charles Henry Gibson, College of Medicine, Newcastle-upon-Tyne; John Spencer Hall, M.R.C.S., L.R.C.P., St. Thomas's Hospital; Robert Simpson Hindmarch, College of Medicine, Newcastle-upon-Tyne; Ernest George Klumpp, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; Ernest Edward Norman, Alfred Parkin, Frederick Riddle Scott, and John Ernest Sidgwick, College of Medicine, Newcastle-upon-Tyne; Alfred Edward Stevens, M.B., St. Thomas's Hospital; and Richard Thorne-Thorne, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital.

*Bachelor in Hygiene (B.Hy.)*.—Thomas Morrison Clayton, M.B., B.S. Durh.; and Thomas Yeates, M.B., C.M. Ed.

*Diploma in Public Health (D.P.H.)*.—Thomas Morrison Clayton, M.B., B.S., B.Hy. Durh.; Henry Edward Davison, M.B., B.S., B.Hy. Durh.; Duncan Macfadyen Millar, M.B., C.M. Glasg., B.Hy. Durh.; Edgar Mitchell, M.D., B.S., B.Hy. Durh.; and Thomas Yeates, M.B., C.M. Edin., B.Hy. Durh.

**UNIVERSITY OF GLASGOW**.—The following have passed the first professional examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (B., Botany; Z., Zoology; P., Physics; and C., Chemistry):—

John Andrew Aitken (B., Z.), George Allison Allan (B., Z., P., C.), Robert Anderson (Z.), James Henderson Baird, B.A. (B., P.), Edgar Barnes (B., P.), George Duncan Morrison Beaton (B.), John Charles Bosworth (C.), Donald Livingstone Carmichael (B., P.), John Paterson Carmichael (B., C.), Charles Game Angus Chislett (Z., P.), Donald Clark (B., P.), James Alexander Cowie, B.A., B.Sc. (B.), Arthur Muir Crawford (B., P.), Harold Windley Dempster (B., Z., P., C.), Robert Scott Dewar, M.A. (B.), Walter Duffy, M.A. (Z., P.), John Shaw Dunn (Z.), Eric John Dyke (B., C.), Hamilton William Dyke (B., P.), James Fairley (B., P.), Harry Prescott Fairlie (B., P.), Alexander Burns Ferguson (B., P.), Thomas Henderson Forrest (B., P.), James Wilfred Georgeson (B.), William Gilbert (B., P.), Joseph Glaister (C.), Alexander Graham (Z.), John Isdale Greig (B., Z.), William Grier (B., P.), Robert Neil Guthrie (B., P.), Charles Francis Dyer Hammond (P., C.), John Hammond

(B., Z.), Frank Hauxwell (B., P.), Robert McCowan Hill (C.), Lawrence Hislop (C.), Ralph Howell (C.), Alexander Hunter (P.), David Guthrie Hunter, M.A. (Z.), William Boyd Jack (B., P.), Arnold Ernest Jones (Z., P., C.), Percy James Kelly (B., Z.), John Keys (B., P.), James Dunlop Kidd (B., P.), James Towers Kirkland (P.), William Love Kirkwood (B., P.), Peter Lowe, M.A., B.Sc. (B., Z.), Angus Macaulay (Z., C.), John Duncan MacCallum, M.A. (B., Z.), John MacCartney (B., Z.), Thomas McCosh (B., Z.), David MacDonald (B., P.), Duncan McEwan (B., P.), John MacIntyre (B., P.), Finlay John Mackay (P., C.), Hugh MacNaught (B., P.), Richard Cameron Macpherson (Z., P.), Peter Maguire (B., Z., P., C.), John Miller (B., P.), William Miller (B., P.), Henry Joseph Milligan (B., P.), Robert Wright Mitchell (B., P.), John Moffatt (Z.), Kenneth Morrison (P., C.), Arthur Geoghegan Paxton (B., P.), Thomas Thomson Rankin (B., P.), Daniel McKinlay Reid (B.), James Mill Renton (B., P.), Arthur Robertson (B., P.), James Henry Anderson Robertson (B.), William Rolland (Z., P.), Alexander Cappie Russell (B., P.), John Cooper Russell, M.A. (B., C.), James Charles Donaldson Simpson (P., C.), Robert Alexander Slater (Z.), Thomas Baillie Smith (B., P.), Arthur Anderson Stewart (P., C.), Daniel Stewart (B., P., C.), John Logan Stewart, M.A. (B., Z., P., C.), Thomas Strain (B., Z., C.), William Alexander Stuart (B., P.), Joseph Roderick Sutherland (B., P.), William Robb Taylor (B., C.), Thomas Thom (B., P.), Charles Sanson Thomson (B., P.), Robert Todd (B., P.), William Young Turner, M.A. (B., Z.), James Kennedy Welsh (Z.), and George Young (B., P.). Women.—Bethia Shanks Alexander (P.), Jeannie Thomson Clark (B., Z.), Annie Rennie Hird (B., Z.), Rose Isobel Hudson (B., Z.), Katharine Robina Margaret Lucas (P.), Agnes M'Phun (C.), Elizabeth Maud M'Vail (B., Z.), Margaret Walker Millar (P., C.), Edith Oversby (B.), Vera Dagmar Reis (B., Z.), Lily Smellie (P.), and Margaret Baillie Taylor (B., Z., P.).

The following have passed the second professional examination in the subjects indicated (A., Anatomy; P., Physiology; and M., Materia Medica and Therapeutics):—

Robert Adam (M.), Adolph Anderson (P.), James Richard Sumner Anderson (P., M.), Thomas Bennett, M.A. (M.), Archibald Grainger Biset (A., P.), Alexander Blair (A.), Robert George Bradford (P., M.), John Brown (P.), Carl Hamilton Browning (A., P., M.), John Miller Hopkins Caldwell (A.), Andrew Connal (A., P., M.), John Cross (A.), Hugh Collin Davies (A., M.), David Dickie (M.), James Forsyth (A., P., M.), William Macmillan Gilmour (P., M.), James Glover (A., P.), George Gordon (P.), John Hanson, M.A. (A., P., M.), Saul Hyman Harris (M.), William Harvey (M.), John Monnetto Huoy (A., P.), Malcolm Hutton, M.A. (A., P., M.), Alexander Jamieson (P., M.), John Muir Kelly (A.), Alexander Dingwall Kennedy (A., M.), Robert Dallas Kennedy (P.), Alexander Leggat (P.), Archibald Leitch (A.), William Jamieson Logie (P.), Thomas Walker Love (M.), Donald Macaulay (A., P.), John Bertram McCabe (P., M.), John Finlay Macdonald (A., P.), David Duncan Fraser Macintyre (P.), Norman Alexander Macleod (A., P., M.), Andrew Alexander M'Whan (P.), Alexander Matheson, M.A., B.Sc. (M.), John Baird Morton (A., P., M.), Gavin Muir (A.), James Carmichael Palmer, M.A. (A., P., M.), Daniel Stevenson Richmond (P., M.), George Richmond (A., P., M.), Peter Hamilton Robertson (M.), Robert Thin Craig Robertson (M.), Campbell Ross (A., P.), Lawrence Drew Shaw (P.), John Macgregor Smith (P., M.), John Black Stevenson (M.), Wm. David Henderson Stevenson, M.A. (M.), John Stewart (A., M.), Norman Burgess Stewart (A., P.), William Stewart (M.), Peter Lindsay Sutherland (M.), Joseph Walker, M.A. (M.), Alexander Macmillan Watson (M.), Robert Watson (P.), William Norman West Watson (M.), Griffith John Williams (M.), Archibald Simpson Wilson (A.), Robert M'Nair Wilson (A., P.), Eldred Wright (A.), Hugh Young (M.), and John Young, Glasgow (M.). Women.—Jeanie Auld (M.), Agnes Wallace Cameron (M.), Mary Charlotte Cameron (M.), Jane Campbell (A.), Jessie Galloway Duncan (M.), Kate Fraser, B.Sc. (M.), Jane Reid Foulds Gilmour (M.), Margaret Hardy (M.), Mary Lauchline McNeill (M.), Anna Pollock Martin (A.), Eliza Jane Miller (M.), Isabel Deane Mitchell (M.), Margaret Hassock Smart (M.), Jessie Marie Stewart (M.), and Janet Gardner Waddell (M.).

The following have passed the Third Professional Examination in the subjects indicated (P., Pathology; and M., Medical Jurisprudence and Public Health):—

William Armitage (P.), Robert James Arthur (P., M.), Robert Bryson (P.), Angus Campbell (P., M.), Robert Harold Campbell (P., M.), Alexander Adam Carruthers (M.), Robert Peopce Cartwright (M.), John Cairns Christie, M.A. (P., M.), Samuel Campbell Cowan (P., M.), James Craig (P., M.), James Dick, M.A. (P., M.), Mitchell Innes Dick (M.), Donald Douglas, M.A. (M.), William Dow (M.), William White George (P., M.), John Andrew Hagerty (M.), John Kennedy (P.), Daniel Douglas M'Dougall, M.A. (M.), Alexander Armstrong MacFarlane (P., M.), John Matheson Mackellar (M.), Ivy M'Kenzie, M.A., B.Sc. (P., M.), James Roy M'Vail (P., M.), Robert Harry Manson (P.), Robert Menzies (M.), Alexander John Mitchell (P., M.), John Mark Reid (M.), Norman Cumming Rogers (M.), James Russell (P.), Frank Donald Scott (M.), John Barbour Stewart (P., M.), John Restell Thomas (M.), John Forrest Weston (M.), Joseph White, M.A., B.Sc. (P., M.), and John Wilson (P.). Women.—Helen Stephen Baird, B.A. (M.), Gertrude Dorman Bostock, B.Sc. (P., M.), Margaret Edith Bryson (P., M.), Ethel MacLeod Lochhead (P., M.), and Edith Christine Wallace (P., M.).  
\* With distinction.

**POISONOUS FUNGI**.—An inquest was held at Plymouth on Sept. 30th upon a man, aged 42 years, who was taken ill after eating some "mushrooms" purchased from a hawk on Sept. 21st. He died on Sept. 29th. His wife, who had also partaken of the same food, felt no ill-effects. Medical evidence showed that death was due to poisoning by eating fungi which resembled mushrooms, and a verdict of "Death through misadventure" was returned.

**HOSPITAL SATURDAY FUND.**—The quarterly meeting of the board of delegates of the Metropolitan Hospital Saturday Fund was held on Oct. 5th at the offices of the Fund, 54, Gray's Inn-road, W.C. The report of the finance committee showed that the receipts from the workshops, &c., from Jan. 8th to Sept. 14th had amounted to £9865 12s. 8d., as compared with £9128 6s. 5d. at the corresponding period of last year. The expenditure since January had reached £1343 5s. 10d. The sum of £6000 had been placed on deposit at the bankers, and £3134 16s. 1d. had been advanced to the premises fund. For the twenty-ninth consecutive year Hospital Saturday will be observed in London and the suburbs on Saturday, Oct. 12th. The regular weekly collection in the industrial establishments, which will be continued until the end of December, at the present time amounts to nearly £1000 in advance of the sum contributed at a corresponding period of last year.

**A CHARGE OF FRAUD.**—The *Times* of Oct. 8th reports that at Marylebone W. Dyer Frazer, 44 years of age, *alias* Robert Wilson and Sergeant Bertram, described as a surgeon, was charged, on remand, with attempting to obtain charitable contributions from Dr. Theodore D. Acland of Bryanston-square and others by false pretences. It appeared that on July 9th Dr. Acland received a begging letter purporting to come from Mr. W. Dyer Frazer, one of his old pupils at St. Thomas's Hospital, who is now in Johannesburg. The letter was dated from a street at Brighton. Dr. Acland communicated with the secretary of the Medical School at St. Thomas's Hospital and then wrote to Mr. H. C. Crouch of Welbeck-street, Mr. Frazer's brother-in-law. Mr. Crouch immediately recognised the letter as being similar to others received from several other medical men, including Sir William MacCormac, which had been sent on to him, and, knowing that they were not in his brother-in-law's handwriting he communicated with the police. A further charge was now preferred against the prisoner of forging the endorsement of a cheque for £10 and uttering the same, thereby defrauding Mr. J. F. Churchill, of Chesham. Mr. Travers Humphreys, barrister, prosecuted for the Medical Defence Union. Mr. Churchill stated that at one time he was a student at Charing-cross Hospital. On March 21st he received the following letter purporting to be signed by Walter H. Haw, M.R.C.S., L.S.A.:—"Private. Dear Sir,—Under the following very special and exceptional circumstances I beg to solicit, as an old Charing-cross man and ex-H.P., your most kindly offices. I have been in practice in Barberton in the Transvaal, South Africa, and on the outbreak of the war had to decide between losing my all or taking up arms for the Boers. I chose the former alternative, with the result that I have returned here, Air-street, Brighton, penniless and in the greatest straits. To enhance my trials I have a wife and child to support. I am now trying to obtain some help from a benevolent institution, B.M.A. Will you as an act of truest kindness support my appeal? And can you extend me help in any other way? Awaiting your kind reply, I am, Sir, yours truly," and signed as above. The witness wrote asking for references and was referred to two medical men, living at Northampton and Welwyn, who were described as colleagues of the writer at Charing-cross. The witness wrote to these gentlemen and, believing the writer of the letter was the person he represented himself to be, he sent a cheque for £10, which was duly paid by the bank and endorsed "Walter H. Haw." Subsequently, he received other letters from the same person, and at length he wrote to Mr. W. H. Haw at Barberton, and in consequence of his reply he communicated with the Medical Defence Union. Mr. Humphreys said that one of the subsequent letters had a deep black edge and asked for a further £10 as the writer's "dear wife" was dead. Other witnesses were called to show that the prisoner arranged with a newsagent at Air-street, Brighton, to receive letters in the name of Haw. A great many letters were received in that name, and these were given to a woman who took them to the prisoner. This woman had known the prisoner for two years. He had been in England during that time and had neither wife nor children. The prisoner was arrested by Detective-sergeant Harris in the hop-fields at Yalding in Kent. He admitted that he sent the letter, the subject of the first charge, and in regard to the other said that the letters and the endorsement on the cheque were in his handwriting. The detective

informed the court that there were eight other similar cases, but the persons concerned would not prosecute. Mr. Plowden committed the prisoner for trial.

**BRITISH MEDICAL TEMPERANCE ASSOCIATION.**—Dr. T. B. Adam has just been appointed assistant secretary of the British Medical Temperance Association, which now numbers more than 1000 members and student associates. Dr. Adam's address will be that of the honorary secretary, Dr. J. J. Ridge, Carlton House, Enfield, and he will specially devote himself to work among medical students.

**MR. J. LYNN THOMAS, C.B., F.R.C.S. Eng., L.R.C.P. Lond.**—At the meeting of the committee of the Cardiff Infirmary held on Oct. 2nd, a resolution was passed expressing the heartiest congratulations of the committee to Mr. J. Lynn Thomas on his being appointed a Companion of the Order of the Bath, a distinction awarded to him in recognition of his services in South Africa.

**VACCINATION QUESTIONS.**—At a meeting of the Helston Board of Guardians held on Sept. 28th a letter was read from the Local Government Board drawing attention to the unsatisfactory state of vaccination in one of the parishes of the union, and requesting the guardians to inform the public vaccinator that if he did not perform his duties another must be appointed to do so. The guardians eventually decided to write to the public vaccinator complaining of, the assistant clerk remarking that unless the board of guardians did their duty by dealing with defaulters they could hardly expect the public vaccinators and vaccination officers to do theirs.

**FATAL ACCIDENT TO A MEDICAL MAN.**—An inquest was held at Chippenham on Oct. 4th concerning the death of Dr. David Reid Crow, whose body was found lying on the Great Western Railway line near Chippenham. Evidence showed that Dr. Crow had taken a ticket from Plymouth to Paddington on Oct. 2nd and at Chippenham the door of the railway-carriage in which he journeyed was found open. Medical evidence showed that the neck was fractured and a verdict of "Accidental death" was returned. Dr. Crow, who was a native of Ardrishaig, Argyllshire, was 32 years of age and was unmarried. He studied medicine at Edinburgh University, graduating M.B. and C.M. in 1893. For a few years afterwards he practised in Barnes, near London, until last year he accepted a Government appointment in West Africa. Whilst at Kumasi he contracted malarial fever and had only just returned on leave to England.

**EPSOM COLLEGE.**—At a meeting of the Council of Epsom College held on Oct. 2nd, when the Rev. E. W. Northey occupied the chair, a silver tea and coffee service was presented to the Rev. Dr. Rowton, as a personal testimonial from the members of the Council, all of whom had contributed towards its purchase. The following inscription appeared on the tea and coffee pots:—"Presented to the Rev. S. J. Rowton, M.A., Mus. D., by the members of the Council of Epsom College, in recognition of his devotion to the best interests of the School during thirty years. July, 1901." In presenting the testimonial the chairman referred in cordial terms to the long period during which Dr. Rowton had been connected with the College and to his valuable and varied services to the school. He observed that the pleasure of the Council in making the presentation was linked with regret at the loss of so valued a teacher. On behalf of his colleagues and of himself he expressed the hope that health and happiness would attend Dr. Rowton and his family in their new home. Dr. Rowton replied in happy terms, expressing his most hearty thanks to the Council for their recognition of his work.

**ENTRANCE SCHOLARSHIPS.**—At King's College Hospital the following Entrance Scholarships have been awarded:—Medical Entrance Scholarships: P. A. Mansfield, 70 guineas; W. Hart, 60 guineas. Sambrooke Medical Exhibition (Science): F. C. H. Powell, £60. Clothworkers' Company Exhibitions (Science): N. G. Langrish, £30 for two years; G. W. N. Rose, £20 for two years. Warneford Medical Scholarships (Arts): H. L. Gauntlett, £25 for three years; C. A. Narlian, £25 for three years. Epsom Scholarship: J. L. Burford, £135.—The following awards have been made in the Faculty of Medicine at University College, London:—Medical Entrance Scholarships—Bucknill Scholarship, £30 a year for four years, J. A. Watt; 60 guineas

Scholarship, H. R. Evans; 60 guineas Scholarship, L. F. Hirst. Medical Exhibitions, each 80 guineas, J. A. Ferrière and E. E. Maples.—At the Westminster Hospital Medical School the entrance scholarships competed for before the beginning of the winter session have been awarded as follows:—Epsom Scholarship, of the value of 110 guineas, J. M. Platt; Scholarship in Arts, of the value of £60, R. S. Statham, Dover College; Natural Science Scholarship, of the value of £60, A. C. Bryson; University Scholarship, of the value of £40, J. H. Hebb, St. John's College, Oxford; Scholarship in Arts, of the value of £40, H. Galloway, St. Paul's School; and a Scholarship in Arts, of the value of £30, C. C. Hickey.

**WATER-SUPPLY OF PADSTOW.**—The Local Government Board inspector recently held an inquiry at Padstow, Cornwall, into the application of the urban district council for leave to borrow £4535 for the purpose of a water-supply for this seaside resort.

**DEATHS OF CENTENARIANS.**—Mrs. Spurway died at Barnstaple last week at the age of 101 years and five months.—The death is announced of Madame Thiollier, aged 103 years, at Lombreuil. She has left 92 children and grandchildren.

**CHARITABLE REQUESTS.**—By the will of the late Mr. Robert Currie Murray, of Kirkconnel Lea, Sydenham-road, Bristol, the Royal Infirmary at Dumfries receives £500, Mr. Barnardo's Homes £300, and the Royal Infirmary at Bristol, the Bristol General Hospital, the Bristol Dispensary, and the Children's Hospital at Bristol £100 each.

**A NEW HOSPITAL FOR WHITBY.**—On Sept. 28th Lady Cecilia Turton opened the new permanent Cottage Hospital erected in Grape-lane, Whitby, which occupies the site of the old premises of the York Union Bank. The new building has cost about £1100, towards which sum £300 are still required. The hospital has been fitted with the latest modern improvements. It may be of interest to note that Captain Cook, the circumnavigator, lived next door to the present building.

**BRISTOL GENERAL HOSPITAL.**—A special general meeting of the governors of this institution was held on Oct. 7th, when Dr. George Parker was appointed physician to the hospital, vice Dr. Alfred James Harrison, resigned. Dr. Harrison was appointed physician in charge of the skin department of the hospital. There were three candidates for the post of assistant physician vacant by the resignation of Dr. Parker, and Dr. Newman Neild was eventually elected.

**FREEMASONRY.**—*The Rahere Lodge, No. 2546.*—A meeting of this lodge was held on Oct. 8th at Frascati's Restaurant, Oxford-street, London. W. Bro. Phineas S. Abraham, M.D., W.M., being in the chair. Bro. Whitaker was admitted to the third degree and Bros. Keown and Scott to the second degree. Mr. Arthur J. Edge, M.B. Lond., was initiated into Freemasonry and Bro. T. B. Carlyon, M.R.C.S. Eng., St. George's Lodge, No. 125, was unanimously elected a member of the lodge. The brethren and a number of guests afterwards dined together.

**ADDED MILK IN BUTTER.**—In THE LANCET of Sept. 21st, p. 779, it was mentioned that Messrs. Pearks, Gunston, and Tee, grocers, had been condemned in three different places to pay fines and costs amounting to £60 for selling butter containing more than 16 per cent. of moisture. The same defendants having been recently summoned before the Taunton borough justices for a like offence—namely, the sale of butter re-churned with milk—the bench dismissed the summons, on the ground that the label was sufficiently descriptive and that there had been no sale to the prejudice of the purchaser.

**THE NATIONAL REGISTRATION OF PLUMBERS.**—The Mayor of Tunbridge Wells (Alderman W. H. Delves) presented certificates of registration to master and operative plumbers at a meeting at the Town Hall, Tunbridge Wells, on Oct. 3rd. He was supported by Alderman Lutwidge, Alderman Cronk, and other members of the corporation, who expressed their sense of the need for the national registration of plumbers in the public interest.—Mr. W. H. Bishop, who represented the Plumbers' Company, sketched

the origin of the movement, the resolve of the craft to insure respect for plumbing work, the demands for registration that came from all sides, the formation and constitution of registration committees, the gradual growth in them of tests in practical work, the importance of practical tests, and the appreciation of the craft shown by adhesions equal to over one-third of the plumbers of the United Kingdom to a voluntary association exercising authority to which they declared allegiance. He described the importance attached by plumbers to an Act of Parliament which would put difficulties in the way of those who were not registered but pretended that they were, and glanced at the opposition made by interested parties. He praised the intelligence of those who from the desire to see plumbing work well done had supported the registration movement, suggesting that if one in 10 might be taken to represent the really intelligent men in any great trade plumbers (registering over one-third of the whole) might claim that their intelligent members of the craft were as one in three, a much larger proportion.—Mr. A. Markins, an operative plumber, expressed the hope that in the new technical institute provision would be made for practical as well as theoretical classes.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

- BARR, J., M.B., M.S. Glasg., has been re-appointed Medical Officer of Health of the Urban District of Rishton.
- BONNEY, W. F. VICTOR, M.D., M.S. Lond., F.R.C.S. Eng., has been appointed Physician to Out-patients, Chelsea Hospital for Women.
- BYFORD, W. F., M.R.C.S. Eng., L.R.C.P. Lond., has been re-appointed Medical Officer of Health of the Borough of Ruthin.
- COLLARD, F. S., F.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Acts for the Croydon District of Surrey.
- COLLINS, EDWARD TENISON, M.R.C.S., L.S.A., has been appointed Honorary Gynaecologist to the Cardiff Infirmary.
- COUTTS, F. J. H., M.D. Vict., D.P.H., has been appointed Medical Officer of Health of the Borough of Blackpool.
- DOBBS, K. D. B., L.R.C.P., L.R.C.S. Irel., has been re-appointed Medical Officer of Health of Tutbury.
- GRIFFITHS, A. F., M.D. Harvard, has been appointed Clinical Assistant, Chelsea Hospital for Women.
- HAY, JOHN, M.D. Vict., M.R.C.S. Eng., L.R.C.P. Lond., has been re-appointed Medical Tutor and Registrar to the Royal Infirmary, Liverpool.
- HILL, ERNEST, L.R.C.P. Lond., M.R.C.S., D.P.H., has been appointed Health Officer for the Colony of Natal.
- KELLY, BRUCE, M.B., C.M. Edin., L.R.C.P. Lond., M.R.C.S., has been appointed Deputy Medical Officer by the Wells (Somerset) Board of Guardians.
- LAMB, J. M. A., L.S.A. Lond., has been appointed Medical Officer and Public Vaccinator for the Second District, Poole Union.
- LEHMANN, J. E., M.B. Toronto, L.R.C.P., M.R.C.S., has been appointed Assistant Surgeon to the German Hospital, London.
- MARSHALL, LEIGH-RICHMOND, L.S.A. Lond., has been appointed Medical Officer and Public Vaccinator to the Mary Tavy District of the Tavistock Union.
- MATTHEWS, J. F., M.R.C.S. Eng., has been appointed Public Vaccinator for the South-Western District, Victoria.
- MCCALL, EVA, M.B., B.S. Glasg., has been appointed Resident Medical Officer at the Birkenhead Union Infirmary.
- MCCARDEL, E. J., M.D., Ch.M., M.R.C.S. Eng., has been appointed Clinical Assistant, Chelsea Hospital for Women.
- MONTGOMERY, SAMUEL, L.R.C.P., L.R.C.S. Edin., has been appointed District Medical Officer and Public Vaccinator to the Branksome District, Poole Union.
- MURRAY, A. H., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer at Cunnamulla, Queensland.
- PRINGLE, ARTHUR Y., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Honorary Medical and Surgical Officer to the East Suffolk and Ipswich Hospital.
- SHERREN, JAMES, F.R.C.S. Eng., has been appointed Surgical Registrar to the London Hospital.
- TURNER, A. H., L.S.A., has been appointed Medical Officer and Public Vaccinator of the Beaconsfield District of the Amersham Union.
- VON MURALT, WILLY, M.D. Zürich, has been appointed Clinical Assistant, Chelsea Hospital for Women.
- WADDINGTON, W. HEYWOOD, M.B. Vict., L.S.A., has been appointed Medical Officer of Health for Scarborough.
- WHITEHOUSE, W. H., M.D. Durh., has been appointed Honorary Medical Officer to the Birmingham Lying-in Charity, vice Mr. Clement Hadley.
- WILLIAMS, LEONARD, M.D. Glasg., has been appointed Assistant Physician to the German Hospital, London.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

- BIRMINGHAM GENERAL DISPENSARY.**—Resident Surgeon, unmarried. Salary £150 per annum, with rooms, fire, lights, and attendance.
- BRADFORD ROYAL INFIRMARY.**—House Surgeon, unmarried. Salary £110 per annum, with board and residence. Also Dispensary Surgeon, unmarried. Salary £100 per annum, with board and residence.
- BRISTOL GENERAL HOSPITAL.**—Assistant House Surgeon. Salary £70 per annum, with board, residence, &c.
- CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY,** Sloane-square, Chelsea, S.W.—Honorary Surgeon.
- CHELSEA HOSPITAL FOR WOMEN,** Fulham-road, S.W.—Registrar. Honorarium 20 guineas per annum.
- CITY ASYLUM,** Birmingham.—Junior Assistant Medical Officer, unmarried. Salary £150 a year, with board, apartments, and washing.
- CORNWALL COUNTY ASYLUM,** Bodmin.—Junior Assistant Medical Officer, unmarried. Salary £120, rising to £150, with board, apartments, laundry, &c.
- COUNTY ASYLUM,** Mickliver, Derby.—Junior Assistant Medical Officer. Salary £110, rising to £130 per annum, with apartments, board, washing, and attendance.
- DENBIGHSHIRE INFIRMARY,** Denbigh.—House Surgeon. Salary £100, with board, residence, and washing.
- DESEX COUNTY ASYLUM,** Brentwood.—Junior Assistant Medical Officer. Salary £140 per annum.
- GREAT NORTHERN CENTRAL HOSPITAL,** Holloway, N.—Surgeon.
- GUY'S HOSPITAL MEDICAL SCHOOL.**—Gordon Lectureship in Experimental Pathology. Salary, with fees, £250 per annum.
- HOSPITAL FOR SICK CHILDREN,** Great Ormond-street, London, W.C.—House Surgeon, unmarried, for six months. Salary £20, washing allowance £2 10s., with board and residence; also Surgeon Dentist.
- HOSPITAL FOR WOMEN,** Liverpool.—House Surgeon for six months. Honorarium £25.
- HUDDERSFIELD INFIRMARY.**—Junior House Surgeon. Salary £80 per annum, with board, residence, and washing.
- HOSPITAL FOR WOMEN,** Soho-square, W.—Assistant Physician.
- INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.**—Senior House Surgeon. Salary £100 per annum, with residence, board, and washing.
- MANCHESTER MONSALL FEVER HOSPITAL.**—First Medical Officer. Salary £150 per annum, with board and lodging.
- MIDDLESEX HOSPITAL,** W.—Honorary Physician.
- MORPETH DISPENSARY.**—House Surgeon, unmarried. Salary £120 per annum, with rooms, coals, gas, and attendance.
- PADDINGTON GREEN CHILDREN'S HOSPITAL,** London, W.—House Physician, also House Surgeon, both for six months. Salary at rate of 50 guineas a year, with board and residence.
- PLYMOUTH BOROUGH ASYLUM.**—Assistant Medical Officer, unmarried. Salary £150 per annum, rising to £200, with apartments, board, and washing.
- ROYAL CORNWALL INFIRMARY.**—House Surgeon, unmarried. Salary £100, increasing by £10 a year, with board and apartments.
- ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST,** Ventnor.—Resident Medical Officer, unmarried. Salary £150 per annum, with board and lodging.
- ROYAL SEA BATHING HOSPITAL,** Margate.—Honorary Visiting Surgeon.
- ROYAL VICTORIA HOSPITAL,** Belfast.—Medical Superintendent. Salary £300 per annum, with board and apartments.
- ROYAL WESTMINSTER OPHTHALMIC HOSPITAL,** King William-street, West Strand, W.C.—Assistant Surgeon.
- SUSSEX COUNTY HOSPITAL.**—House Physician, unmarried. Salary £80 per annum, with board, residence, &c.
- WESTBOURNE PROVIDENT DISPENSARY,** 244, Harrow-road, Paddington.—Medical Practitioner.
- WEST RIDING ASYLUM,** Wakefield.—Locum Tenens for three months from Nov. 1st next. Salary £3 3s. a week, with apartments and board.
- YORK COUNTY HOSPITAL.**—House Surgeon. Salary £100 per annum, with board, residence, and washing.
- YORK DISPENSARY.**—Resident Medical Officer, unmarried. Salary £110 a year, with board, lodging, and attendance.

The Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies for Certifying Surgeons under the Factory Acts at Foyers, Invernesshire; at Shilton, Warwickshire; at Wells, Norfolk; and at Sherston, Wiltshire.

## Births, Marriages, and Deaths.

### BIRTHS.

- FOULDS.**—On Oct. 8th, at Ashlea, Droitwich, the wife of Francis H. Foulds, M.R.C.S., L.R.C.P. Lond., of a daughter.
- TINLEY.**—At Hildegarde House, Whitby, Sept. 8th, the wife of W. E. F. Tinley, M.D., twin daughters.

### DEATHS.

- SMITH.**—On Oct. 1st, at Machadodorp, Transvaal, of dysentery, Hugh Beaumont Smith, M.B., B.Ch., B.A.O. Irel., Civil Surgeon, aged 25.
- THOMSON.**—On Oct. 6th, at Beochhurst, Camberley, Surrey, Surgeon-Major-General William Arthur Thomson, Honorary Physician to the King, aged 71.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## Notes, Short Comments, and Answers to Correspondents.

### ALLEGED WANT OF SKILL NO ANSWER TO A CLAIM FOR ATTENDANCE.

At the Southwark County Court on Tuesday, Oct. 1st, before his Honour Judge Addison, K.C., Dr. James Wills, of 232, Old Kent-road, sued Joseph Payne, to recover £10 9s. for professional attendance on, and medicine supplied to, Mrs. Payne.—Mr. Philcox, solicitor, appeared for the plaintiff.—Dr. Wills said that he attended Mrs. Payne during seven months, paying her 32 visits, making two special examinations, one operation which occupied two hours and in connexion with which he paid another medical gentleman £1 1s. for administering chloroform, and supplying 32 bottles of medicine, 11 bottles of lotion, powders, &c. He sent in his bill for £10 9s., which was a reasonable charge, and no complaint was made until the present summons was issued.—The Defendant declared that all that this bill covered was done by the medical practitioner to rectify an error he made when his wife was first confined.—The Plaintiff: That was two years ago, and she has been confined by another doctor since. She came back to me after that.—The Defendant: The doctor who attended at the second confinement found out the injury done at the first.—His Honour: As there is no counter claim against the doctor for want of skill that is no answer to this action. It is rather hard on the doctor to suggest want of skill after all this long time and after another confinement by another medical man. But why did you come back to Dr. Wills after he had, as you suggest, done wrong?—The Defendant: Because of what the doctor told me at the second confinement. She has had to undergo an operation and cannot come to-day.—His Honour: The suggestion of want of skill is no answer to this bill. That would be matter for a cross action or a counter claim, but it would be a very difficult thing to prove. I am not in the least inclined to suggest such an action, because I know of no class of case which is more expensive or troublesome or difficult of proof than negligence against a medical man after such a lapse of time.—Dr. Wills: I was accompanied by another medical man, and we gave her chloroform as it was a very difficult case, but she got perfectly well.—The Defendant: The doctor used instruments against my wish.—His Honour: That is no answer to this bill.—The Defendant: Will you adjourn the case until my wife is able to attend?—His Honour: I should do you no earthly good by adjourning this; it would only pile up costs against you and waste the time of the doctor. I cannot allow that. If you have a grievance against the doctor you must bring an action against him. At present he is entitled to this amount, and therefore I give judgment for him for the amount claimed and costs.—Judgment was entered accordingly.

### A POINT IN VACCINATION LAW.

To the Editors of THE LANCET.

SIRS,—I shall be much obliged if you will kindly answer in the next number of THE LANCET what I am going to ask you. I am a public vaccinator and sent a notice to the father of a child saying I would call and offer to vaccinate, &c. By return of post I received a letter from the father containing his address, signed with his full name, and saying "it will be no use you visiting the home of — [giving his child's name] for I will not have her vaccinated," the words in italics just as I have written them. The man is a farmer, in a good position, and not being my patient I did not call at the house. I want to know if, in the face of the father's decided refusal of vaccination, it is necessary for me to visit the house in order to render successful any proceedings taken against the father of the child by the vaccination officer. I am, Sirs, yours faithfully,

Oct. 3rd, 1901.

\*.\* Yes, it is necessary.—ED. L.

BOOTE.

### A LEGAL QUERY.

JUDICIAL ignorance is proverbial, but legal ignorance is, if we may judge by the following story, not confined to the bench. A lady applied through her solicitors to an insurance office for insurance on her life. The office replied to the solicitors that they could not entertain the proposal to insure Mrs. — "on account of her menopause not being yet established." The solicitors thereupon wrote back to the office:—

"Gentlemen,—What is a menopause? and what steps, if any, would you recommend us to advise Mrs. — with a view to getting her menopause established or filed?"

\*.\* This letter was type-written, with the exception of the last two words, which were in ink.—ED. L.

### THE WATER-FAMINE IN THE NORTH.

THE *Batley Reporter* of Oct. 4th attributes to the medical officer of health of Batley the following statement: "The dark colour of the water at Batley just now will do nobody any harm. He had tested the water and found it perfectly free from any signs of decomposition. 'Boiling and filtering might suit sentimentalists, but it spoiled the water and there was no need for it.'

We do not know the state of the water at Batley, and possibly the medical officer of health is correct in saying that the public might drink it with impunity, but to make such a general statement as he is reputed to have done is certainly to expose himself to criticism. Under certain circumstances not to boil the water would be to court a great danger in drinking it, and if the water at Batley is dark-coloured the term "sentimentalists" can certainly not be applied to those who would take the very wise precaution of filtering and perhaps of boiling it also before drinking it. Certain fevers have been proved to be waterborne, but boiling destroys the germs and renders the water fit for drinking purposes as far as disease germs are concerned.

#### DOMEN STRAIGHT-FRONTED BELT CORSET.

THE Domen Belt Co., of 406, Strand, London, W.C., have submitted to us their straight-fronted belt corset, which they have designed with a view to the avoidance of compression in the epigastric and umbilical region and which they state will especially meet the requirements of those suffering from certain abdominal troubles. The combination of corset and belt is well designed and is a great advance on the separate articles usually employed. The elasticity of the straight-fronted belt corset goes a long way towards reducing the possibility of too tight-lacing and it is pronounced to be very comfortable.

#### "HIGH FREQUENCY CURRENTS AND DIABETES."

To the Editors of THE LANCET.

SIRS,—In reply to your correspondent "S. L. B. W." re High Frequency Currents and Diabetes in THE LANCET of Oct. 5th we have record of an exceedingly interesting case treated by high frequency currents as employed here. The patient was a chief engineer in the American Navy at Santiago. The sugar in his urine was reduced very greatly, almost to vanishing point, his weight increased, and his general health was completely restored. We shall be pleased to send you detailed particulars if favoured with an application from your correspondent.

I am, Sirs, yours faithfully,

JOHN D. MARSHALL.

he Electrical Ozone and Light Treatment, Hanover-square, W.,  
Oct. 7th, 1901.

To the Editors of THE LANCET.

SIRS,—The following references may assist "S. L. B. W." :—Bordier (Précis d'Electrothérapie, p. 532), abstract : "Results not conclusive. Messrs. Apostoli and Berlioz have in three cases seen the sugar disappear almost completely; treatment by auto-conduction. When the sugar has not diminished there has been a marked improvement in the general state. Owing to the different causes uniform results cannot be expected. However, the treatment ought to be tried in all cases if only for the improvement in the general state." Gaimbail (La Thérapie par les Agents Physiques, p. 517) has submitted several cases to auto-conduction without any result. There is, so far as I can see, no mention of the treatment of diabetes by high frequency currents in the Comptes Rendus des Séances du Ier Congrès International d'Electrologie et de Radiologie Médicales, Paris, 1900.

I am, Sirs, yours faithfully,

J. DODD.

Oct. 8th, 1901.

To the Editors of THE LANCET.

SIRS,—In answer to "S. L. B. W." re the value of high frequency electrical currents in the treatment of diabetes mellitus I beg to state that I have treated five cases. Four, very slight and early cases, lost all sugar and symptoms in a few weeks' treatment. The fifth case is a very old one and the weight improves and sugar goes quickly under treatment only to return after an interval of a few months. The patient is now under treatment for the third time and is gradually improving. I hope to be able to report these cases later. High frequency and high potential electrical currents are of the greatest use in all conditions of "wasting."

I am, Sirs, your faithfully,

C. W.

Oct. 7th, 1901.

#### "A DIFFICULTY UNDER THE NOTIFICATION ACT."

To the Editors of THE LANCET.

SIRS,—Under the above heading of proceedings against me by the Lunesdale Rural District Council, reported in your issue of Oct. 5th, is a mistake which might easily occur by a confusion of names. It is made to appear that I conducted the cross-examination of my opponent's medical witness, at the end of which it says, "Dr. Wingate-Saul submitted there was no case to answer," &c., &c., and, further, "Dr. Wingate-Saul's application for costs was refused," &c., &c.—whereas I never spoke in court, my case having been conducted by my son, Mr. E. W. Wingate-Saul, barrister-at-law, instructed by a firm of Lancaster solicitors. If you will kindly make this correction in your next issue I shall be obliged.

I am, Sirs, yours faithfully,

Oct. 6th, 1901.

W. W. WINGATE-SAUL.

#### A QUESTION OF ORTHOGRAPHY.

To the Editors of THE LANCET.

SIRS,—On reading the "Suggestions for the Care and Use of Paraffin Lamps" issued by the Education Department I noticed, as probably others have done, that the eighth paragraph is as follows: "Never refill (sic) the lamp when it is alight." Turning to page 928 of THE LANCET of Oct. 5th, where you reprint the somewhat lengthy document which is to puzzle or instruct the young mind and lead to the

puzzling or instruction of the parent corrected by the offspring, I found, without surprise, that in the injunction referred to you print "refill" as "re-fill." I confess myself to be on the side of your proof-reader or whoever corrected (as I believe) the spelling of the Education Department, and I may point out that you have on your side practically all the dictionaries, even the "Century Dictionary" which hails from across the Atlantic and would justify the Education Department if it sought to make its pupils spell "theatre" "theater," giving "refill" without an alternative spelling with one l. Johnson, however, and the "New Oxford Dictionary" alike give "fulfil" in preference to "fulfill" without excluding the latter, and I take it that the gentleman who drafted the lamp circular followed the analogy of "fulfil" either intentionally or unconsciously. I should rather like to know, however, what spelling will be adopted by schoolmasters and school inspectors who may strive to impress the circular on scholars by giving it to them as dictation, and what view would be taken by Civil Service examiners in those examinations for posts in Government offices and the services in which mistakes of spelling are jealously scrutinised and counted. "Refill," at any rate, cannot have been a misprint; it catches the eye too readily for successive readers to miss it—and I suppose that someone reads the circulars issued by Government departments after they leave the printers.

I am, Sirs, yours faithfully,

M.A. CANTAR.

Oct. 9th, 1901.

#### HOW DISEASE IS SPREAD.

A CASE of scarlet fever was recently reported to the medical officer of health of Leeds, who found that the patient, as soon as he knew the nature of the disease, had travelled to Southampton. The Leeds authorities communicated with the sanitary department of that port and the man has been summoned before a court of summary jurisdiction and fined 40s. and costs for appearing in a public place while suffering from scarlet fever. It is a pity that a greater penalty than this could not be meted out to persons who thus jeopardise the health and perhaps the life of their fellow-creatures.

#### SHORTHAND FOR MEDICAL STUDENTS AND PRACTITIONERS.

AMONG the students who have just commenced their medical studies there are probably some who are acquainted with shorthand, having learnt it at school. The attention of such students is specially invited to the Society of Medical Phonographers. The object of this society is to increase the practical service of shorthand to its members by publishing a monthly periodical and other shorthand medical works. Also, any medical practitioners who use shorthand and have not yet joined the society are cordially invited to do so. No skill in shorthand is necessary for membership. The annual subscription for students is 5s., for practitioners 7s. 6d. A detailed prospectus of the society will be sent on application to the honorary secretary, Dr. Fletcher Beach, 79, Wimpole-street, W.

Uncertain.—If our correspondent took the degree of M.B. London subsequently to 1887 there is no doubt that as far as qualification is concerned he is eligible for the post he mentions.

## Medical Diary for the ensuing Week.

### OPERATIONS.

#### METROPOLITAN HOSPITALS.

**MONDAY (14th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynaecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopaedic (2 P.M.), City Orthopaedic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

**TUESDAY (15th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**WEDNESDAY (16th).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopaedic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

**THURSDAY (17th).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynaecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**FRIDAY (18th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London

Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square, (9.30 A.M.).  
**SATURDAY (15th).**—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.).  
 At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

## SOCIETIES.

**MONDAY (14th).**—MEDICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8 P.M. General Meeting. 8.30 P.M. Ordinary Meeting. Address:—Dr. W. H. Allchin (President): The Responsibility of the Organism in Disease.

**TUESDAY (15th).**—PATHOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Dr. W. Barratt: A Case of Sylvian Aneurysm.—Dr. F. W. Andrews: Hemorrhagic Myositis in Enteric Fever.—Mr. O. S. Wallace: Primary Melanotic Sarcoma of Small Intestine.—Dr. Thursfield: A Case of Pleuro-oesophageal Fistula.—Mr. S. Shattock: Prehistoric Calculus. Card Specimens:—Dr. Findlayson: Agenesis of Lung.—Dr. Thursfield: (1) Cerebellar Tumour arising from Ependyma; (2) a Case of Porencephaly.  
**CHELSEA CLINICAL SOCIETY** (Jenner Institute of Preventive Medicine, Grosvenor-road, Chelsea).—8.30 P.M. Opening Address:—Mr. C. A. Morris: Some War Sequels.

**WEDNESDAY (16th).**—ROYAL MICROSCOPICAL SOCIETY (20, Hanover-square, W.).—7.30 P.M. Mr. C. L. Curties: Exhibition of Mounted Specimens of Marine Zoological Objects. 8 P.M. Paper:—Miss A. L. Smith: The Fungi found on Germinating Farm Seeds.

**THURSDAY (17th).**—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Paper:—Mr. C. Williams: Hematuria in Childhood.

**OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.**—8 P.M. Cases:—Mr. R. Marcus Gunn: Persistent Double Keratitis, mainly superficial, without Tendency to Ulceration.—Mr. S. Stephenson: A Case of Congenital Distichiasis. Presidential Address:—Some Clinical Experiences of Primary Chronic Glaucoma and the Value of Iridectomy. Papers:—Mr. S. J. Taylor: Notes of a Case of Rodent Ulcer of the Cornea in a Child.—Mr. E. Nettleship: Chronic Serpiginous Ulcer of Cornea (Mower's Ulcer).

## LECTURES, ADDRESSES, DEMONSTRATIONS, &amp;c.

**MONDAY (14th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. J. Galloway: Clinique. (Skin.)

POST-GRADUATE COLLEGE (Lecture Room, West London Hospital, Hammersmith-road, W.).—5 P.M. Sir William Mac Cormac, Bart., K.C.V.O.: Opening Address.

**TUESDAY (15th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Sir W. H. Broadbent: Clinique. (Medical.)

POST-GRADUATE COLLEGE (Lecture Room, West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Minor Surgery.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. Tooth: Spinal Localisation.

**WEDNESDAY (16th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. A. H. Tubby: Clinique. (Surgical.)

POST-GRADUATE COLLEGE (Lecture Room, West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. MacAdam Eccles: Surgical Anatomy.

LONDON THROAT HOSPITAL (204, Great Portland-street, W.).—5 P.M. Dr. Cathcart: Examination of Ear. (Post-Graduate Course.)

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL (Gray's Inn-road, W.C.).—8 P.M. Introductory Lecture:—Mr. L. Browne: The Relationship to General Medicine of the Special Diseases treated at the Hospital, also to other Diseases constituting separate Specialisms.

**THURSDAY (17th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.)

POST-GRADUATE COLLEGE (Lecture Room, West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Dunn: Iritis.

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Still: Diarrhoea in Infants.

CHARING-CROSS HOSPITAL.—4 P.M. Mr. Waterhouse: Surgical Cases. (Post-Graduate Course.)

**FRIDAY (18th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. Marcus Gunn: Clinique. (Eye.)

POST-GRADUATE COLLEGE (Lecture Room, West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Saunders: Therapeutics.

## EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

## MANAGER'S NOTICES.

## TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsgagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Office, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.			TO THE COLONIES AND ABROAD.		
One Year	...	£1 12 6	One Year	...	£1 14 8
Six Months	...	0 16 3	Six Months	...	0 17 4
Three Months	...	0 8 2	Three Months	...	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR. CHARLES GOOD, THE LANCET Office, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or on any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and Agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 10th, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Oct. 4	29.95	S.W.	0.07	61	57	53	56	57	Raining
" 5	29.94	S.W.	0.53	87	59	44	45	46	Fine
" 6	29.46	W.	...	83	59	46	51	51	Stormy
" 7	29.62	N.W.	0.22	92	54	47	44	47	Fine
" 8	29.66	S.W.	...	64	60	44	46	48	Overcast
" 9	29.56	N.W.	0.04	88	61	48	49	55	Cloudy
" 10	30.19	S.W.	...	85	58	46	46	48	Hazy

During the week marked copies of the following newspapers have been received:—*Liverpool Post, Leeds Mercury, Bristol Mercury, Recueil d'Ophthalmologie, Medical News (New York), County Council Times, Knowledge, El Jurado Médico-Farmacéutico, Contractor, Daily Mail, Yorkshire Post, Sanitary Journal, Standard, Tablet, Engineer, Blätter für Klinische Hydrotherapie, Oxfordshire Mercury, Windsor and Eton Express, Climate, South African News, Reading Mercury and Oxford Gazette, Mining Journal, Indian Municipal Journal, Indian Engineering, University of Pennsylvania Medical Bulletin, Chronicle and District Times (Swanley), Weekly Press (Aberdeen), Hong-Kong Weekly Press, &c.*

### Communications, Letters, &c., have been received from—

**A.**—Messrs. Allen and Hanbury, Lond.; Dr. A. G. Auld, Lond.; Dr. H. DeMaigne Alexander, Murthly; Alexander Manufacturing Co., Lond.; Anderson's Advertising Agency, Lond.; Mr. C. E. Abbott, Cheltenham; Dr. H. Aldersmith, Lond.; Dr. W. Ayres, New York; Mr. J. Arnett, Leighton Buzzard.

**B.**—Dr. H. W. Bernard, Warwick; Birmingham Daily Post; Messrs. J. Beal and Son, Brighton; Messrs. Beatty Bros., Manchester; Dr. F. G. Bushnell, Plymouth; Mr. J. Bell, Hong-Kong; Messrs. R. Boyle and Son, Lond.; Bogle Bootle Corporation, Borough Accountant of; Mr. A. Briscoe, Birmingham; Mr. H. L. Barnard, Lond.; Messrs. Burroughs, Wellcome, and Co., Lond.; Birmingham City Asylum, Secretary of; Mr. B. Brown, Huddersfield; Mr. C. L. Bedford, Birmingham; Mr. T. Bryant, Lond.; Sir W. M. Banks, Liverpool; Dr. C. H. Brobb, Scarborough; Dr. H. F. Bellamy, Edinburgh; Mr. H. E. Boxall, Lond.

**C.**—Sir W. Church, Bart., Lond.; Colonial Office, Lond.; Church Sanitary Association, Secretary of; Mrs. W. Clarke, Lond.; Cortlandt Wagon Co., Lond.; Messrs. Carrick and Co., Lond.; Cantab, Lond.; College of Preceptors, Lond.; Secretary of; Messrs. Clarke, Son, and Platt, Lond.; C. W., Central London Throat, &c., Hospital, Lond.; Secretary of; Dr. G. S. Carmichael, Edinburgh; Clayton Hospital, Wakefield, Secretary of; Mr. F. G. H. Cooke, Lond.

**D.**—Professor W. Dick, Netley; Mr. H. Dickinson, Wembley; Mr. A. Drummond, Lond.; Herr F. Deuticke, Vienna; Mr. T. Dixon, Lond.; Mr. P. Davidson, Newcastle-on-Tyne; Messrs. W. Dawson and Sons, Lond.

**E.**—Dr. G. H. Edick, Detroit; Messrs. Elliott, Son, and Boyton, Lond.; Miss N. Evans, Bexley; Essex County Council, Clerk to; Mr. G. W. Ellis, Bishop Auckland.

**F.**—Mr. J. A. H. Forrester, Weymouth; Miss V. S. Field, Paris; H. Fulham-Turner, Lond.; Messrs. Frazier, Howieson, and Co., Lond.; Messrs. Farebrother, Ellis, and Co., Lond.; Messrs. J. F. Farwig and Co., Lond.

**G.**—Mrs. Gann, Hayling Island; Mr. F. Golding-Bird, Holmwood; Gloucester General Infirmary, Secretary of; Dr. E. B. Gray, Oxford.

**H.**—Mr. R. Harrison, Lond.; Mr. B. Huxley, Lond.; H<sub>2</sub>BO<sub>3</sub>; Surgeon W. E. Home, R.N., Lond.; Dr. W. Hunter, Lond.; M. Charles Heidsieck, Reims; Mr. D. Harris, Lond.

**I.**—Dr. Imlach, Liverpool; Dr. J. Ince, Swanley; Incorporated Society of Trained Masseuses;

Indian Municipal Journal, Editor of; Imperial Ottoman Bank, Lond., Manager of.

**J.**—Mr. S. James, Gwaun-cae-Gurwen; J. M. L.; Dr. A. B. Judson, New York.

**K.**—Dr. T. N. Kelynaek, Liverpool; Messrs. R. A. Knight and Co., Lond.; Mr. C. Key, Mexico; Mr. R. C. B. Kerin, Lond.; Mr. C. Keyser, Lond.

**L.**—Dr. R. G. Lewis, Cincinnati; Dr. A. D. Leith, Napier; Liverpool Royal Infirmary, Secretary of; Dr. Larkin, Grove Park.

**M.**—Messrs. Marshall, McEwen, and Co., Glasgow; Monkwearmouth and Southwick Hospital, Sunderland, Secretary of; Messrs. C. Mitchell and Co., Lond.; Mr. B. G. A. Moynihan, Leeds; Ministry of Interior, Cairo; Director-General of Sanitary Department; Messrs. Macmillan and Bowes, Cambridge; Mr. J. B. McKay, Princes Risborough; Manchester Corporation, Medical Officer of Health of; Mr. J. Magauran, Wolverhampton; Dr. H. Macnaughton-Jones, Lond.; Medical Graduates' College and Polyclinic, Lond.; Secretary of; Mr. J. Marshall, Cambrone; Mr. J. D. Marshall, Lond.; Dr. J. H. Marsh, Glasgow; Morpeth Dispensary, Hon. Secretary of; Mr. E. Morek, Lond.; Midland Mail, Editor of; Matlock House Hydropathic Co., Lond.; Secretary of; Messrs. E. MacGeorge and Co., Lond.; Dr. Norman Moore, Lond.

**N.**—Messrs. Neyroud and Sons, Lond.; North Wales County Lunatic Asylum, Denbigh; Dr. J. C. Nash, Southend-on-Sea; National Provident Institution, Lond.; Secretary of; National Telephone Co., District Manager of; Naval Medical Service, Director-General of; National Dental Hospital, Lond.; Dean of; Mr. J. C. Needles, Lond.; Mr. H. Needles, Lond.

**O.**—Dr. J. Oliver, Lond.; Miss L. M. O'Kell, Lond.

**P.**—Prince of Wales Hospital Fund for London, Hon. Secretaries of; Dr. D. M. Paton, Melbourne; Mr. Y. J. Pentland, Edinburgh; J. B. Pettigrew, St. Andrews; Dr. G. Steele Perkins, Lond.; Messrs. Parke, Davis and Co., Lond.; Messrs. Peacock and Hadley, Lond.; Plaistow and Canning Town Medical Society, Hon. Secretary of.

**R.**—Mr. H. A. Roechling, Lond.; Royal Aquarium, Managing Director of; Mr. E. J. Reid, Lond.; Mr. H. Roberts, Hayle; Reporter, Editor of; R. L. L.; Mr. H. Rainbird, Saxilby; Mr. H. W. Royle, Lond.

**S.**—Mr. Graham Scott, Denmark Hill; Mr. H. Sewill, Lond.; Stockport, Medical Officer of Health of; S. A. S.; Dr. J. W. Springthorpe, Melbourne;

Sanitary Institute, Secretary of; Messrs. Street and Co., Lond.; Mr. B. S. Story, Durham; Mr. K. Schall, Lond.; Mr. E. Saywell, Nottingham; St. Bartholomew's Hospital, Rochester, Secretary of; Sussex County Hospital, Brighton, Secretary of; Street Court, Kingsland, Secretary of; Messrs. G. Street and Co., Lond.; Messrs. Smith, Elder, and Co., Lond.; Scholastic, Clerical, &c., Association, Lond.; Miss H. W. Stanley, Birmingham.

**T.**—Dr. E. F. Trevelyan, Leeds; Miss L. Twining, Lond.

### Letters, each with enclosure, are also acknowledged from—

**A.**—Dr. T. Angus, Stevenston; Dr. J. Adam, West Malling; Messrs. Armour and Co., Lond.; Apollinaris Co., Lond.; A. G.; A. R. M. G.; Dr. E. Allen, Hawes.

**B.**—Mr. Haydn Brown, Lond.; T. B. Browne, Ltd., Lond.; Dr. J. L. Bogle, Westward Ho; Mr. J. C. Bell, Bodmin; Belfast Corporation, City Cashier of; Dr. W. Burns, Ayr; B. J.; Sir James Crichton Browne, Lond.; Mr. E. Baker, Birmingham; Messrs. J. Broadbent and Co., Huddersfield; Mr. W. Beatty, Manchester.

**C.**—Dr. H. J. Curtis, Lond.; Signor Enrico Castoldi, Brescia, Italy; Messrs. Carter, Lond.; C. L. B.; C. Manchester; C. O. W.; C. B.; Dr. Cotton, New Mains; C. W. P.; Mr. G. L. Cheate, Lond.

**D.**—Dr. W. C. Daniel, Epsom; Mr. W. Doughty, Chillington; Messrs. H. Dawson and Co., Lond.; Mr. R. de Martini, Bexhill-on-Sea; Dorset County Hospital, Dorchester, Secretary of; Messrs. Davis and Ornstein, Lond.; D. M.

**E.**—Mr. E. B. Evans, Swansea; E. B. S.; E. F. R.; E. J. P.; E. R.; The A. R. Elliott Publishing Co., New York; Mr. T. F. Elmes, Belfast; Mr. E.; Dr. W. Bickerton Edwards, Seven Sisters; E. H.

**F.**—Mr. F. H. Foulds, Droitwich; Messrs. Ferris and Co., Bristol; Dr. R. J. Ferguson, Lond.; F. F. S.

**G.**—Dr. C. G. Gibson, Launceston; G. F. R.; G. N.; Dr. F. Gahne, Belize, British Honduras.

**H.**—Mr. W. Halley, Lond.; H. S.; Dr. W. N. Houghton, Coventry; Mr. E. G. Hawkins, Plymouth; Dr. H.; H. J. P.; H. C. P.; H. J.; Mr. G. M. E. Hughes, Liverpool; H. W. E.; Dr. H., Belfast; Messrs. Hastings Bros., Lond.; Dr. D. Hethcote, Scarborough.

**I.**—International Plasmon, Lond.

**J.**—J. H.; J. J.; J. M. K.; J. S. H.; J. E. D.; J. C. H.; J. B. M. K.; J. R. K.; J. C. G.

**L.**—Mr. E. J. Ling, Rotherham; Dr. P. W. Latham, Cambridge; Miss Z. Longstaff, Lond.; Mr. F. B. Loughheed, North Somercotes; London Press Exchange, Lond.

**U.**—Universal Mineral Water Machine Co.  
**W.**—Mr. C. F. Williams, Lond.; W. P. K.; West Riding County Council, Medical Officer of; Dr. W. Whittle, Belfast; Messrs. Wright, Dain, Peyton, and Co., Birmingham; Wills, Ltd., Lond.; Mr. H. B. Wilkinson, New Romney; Westminster Hospital Medical School, Secretary of; Dr. E. W. Ainley Walker, Witney; Mr. W. Wagstaffe, Sevenoaks; Messrs. Willing, jun., Lond.  
**Y.**—York County Hospital, Secretary of.

Miss Lumsden, Frenchie; Messrs. Lacom and Veysey, Porsea; Mr. T. Longmore, Selly Oak; Mr. C. B. Lockwood, Lond.; Mr. H. C. Linden, Compton Martin.

**M.**—Mr. H. C. Moore, Hereford; Mrs. Medlicott, Paddock Wood; Mr. R. H. Moffit, Aberdeen; Marconi's Wireless Telegraph Co., Lond.; Dr. G. N. Meachen, Lond.; Dr. W. S. Morgan, Easton-in-Gordano; Messrs. Macmillan and Bowes, Cambridge; Medicus, Southport; Mr. C. F. Myers-Ward, Sheffield; Mr. W. Mackenzie, Raunds; M. J. T.

**N.**—Mr. T. Nixon, Ashby-de-la-Zouch; Northern Medical Association, Glasgow.

**O.**—Messrs. Offord and Sons, Lond.; Dr. O'Sullivan, Kinsale; O. W.

**P.**—Dr. W. H. Price, Wrexham; Messrs. Perreux and Co., Lond.; Messrs. C. Pool and Co., Lond.; Mr. J. J. Phelan, Lond.

**R.**—Mr. R. W. Rees, Treherbert; Messrs. A. Riddle and Co., Lond.; Dr. H. D. Rolleston, Lond.; R. W. B.; R. W. J.; R. D. J.; Mr. J. M. Randle, Helston; Dr. W. J. Ruddock, Newcastle-on-Tyne; R. M.; Royal Medical Benevolent College, Lond.

**S.**—Rev. E. Spencer, Tavistock; Stirling District Asylum, House Steward of; Mr. E. Swindells, Lond.; Dr. T. W. Shortridge, Honiton; Messrs. Sparkes, Treharne, and Son, Lond.; Dr. G. M. Sydenham, Chelwood Gate; Mr. B. S. Story, Annfield Plain; South Australian Government Bonded Depot, Lond.; Manager of; Mr. F. W. Sears, Lond.; Surgeon, Chellaston; Mr. J. Sampson, York.

**T.**—Dr. F. W. Tunncliffe, Lond.; Dr. W. E. F. Tinley, Whitby; Dr. J. H. Tonking, Cambrone; Dr. T.; Mr. W. Turner, Lond.; Mr. J. A. Thornhill, Burton-on-Trent; Mr. J. Thin, Edinburgh; T. A. L.

**U.**—University of Durham College of Medicine, Newcastle-on-Tyne, V.—Vinolia Co., Lond.

**W.**—Mr. J. Williams, Bradford; Messrs. H. Wilson and Son, Lond.; W. H. P.; W. M.; Mr. W. H. Watson, Scawby; W. S. R.; W. E. R.; W. D. S.

**Z.**—Z., Lond.

EVERY FRIDAY.

# THE LANCET.

PRICE SEVENPENCE.

### SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice but is in itself an additional advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance. Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GODD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed. THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

### ADVERTISING.

Books and Publications	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application.

## An Introductory Address

*Delivered at the Opening of the Session at University College, Liverpool, on Oct. 12th, 1901.*

By OLIVER LODGE, D.Sc., LL.D., F.R.S.,  
PRINCIPAL OF THE UNIVERSITY OF BIRMINGHAM.

GENTLEMEN.—When I left this city of my adoption, to take up closely allied but more various duties elsewhere, my regret at cutting short what might have been a life-work in the midst of tried friends was tempered by the reflection that perhaps after all I might be able to serve the city and the College from a vantage-ground of distance, and by means of experience gained elsewhere, even better than by continuing always in the same old groove of professional routine. I hope that so it may turn out. Meanwhile, I am asked by my late colleague, the indefatigable Dean of your Faculty of Medicine, to address you on this opening of session. If you had wanted a medical address you would not have come to me. If you had wanted a lecture on recent progress in physical science you would have selected some other occasion than the present. Evidently, I am expected to speak on some other topic, and I have no difficulty in guessing what that is. I have been only one year away from Liverpool, and on my return I find the atmosphere alight with two ideas, the idea of a cathedral and the idea of a university. When I left, these ideas were only smouldering, they had been smouldering for years; I could not tell how soon the breath of inspiration would reach one or other of them. I did not expect them to blaze simultaneously. The materials were there, and the spark was there, it needed only a fanning breath to start combustion and set the Mersey on fire. You will see to it that this most wholesome conflagration is not extinguished before its twin objects have been accomplished.

A year ago I confess I did not expect to find the full university ideal so prominently to the front; but any hesitation that might have been felt at urging it too hastily or inopportunistically has been removed by the resolution of your council—your college council and likewise your city council—that a university for Liverpool was a necessity and that any step towards the furthering of that object would be welcome. With the passing of those resolutions the subject leapt beyond the pale of academic discussion, it entered the arena of practical politics, and became a prominent local question of the day. I need not recapitulate the advantage of the step when it can be taken. Those who wish information on the arguments for a teaching university, and on the special advantages of a university for Liverpool, will do well to read the articles which appeared in the local press from the pen of your junior historian, Mr. Ramsay Muir. Those who wish to realise the enthusiasm which can be excited in scholars by the idea of a civic university, and the crowning glory which such an institution can confer upon its parent city, should read again the wise and statesmanlike address given a year ago to the Council of Education by my friend, Principal Dale. In that address, I find that at one time educational institutions, like certain churches before the Savoy Conference, could be spoken of as “each sailing on its own way, in the vast ocean of these tumultuating times, and holding out not so much as a light to each other.” That cannot be said of the English colleges now. The times are as tumultuating as ever, but the colleges of the country do not fail to act as beacons, each shedding an illuminating light or a warning glare on many sides. If I am asked, whence comes the illumination? I can reply, from nearly all of them in so far as they have adequate funds; and whence comes the warning glare?—it comes chiefly from those institutions which are crippled and hampered and struggling to do their best work with hopelessly insufficient means. It has not been always so, I suppose, in the history of the past. I can imagine an institution with more money than brains, but I do not find it among the university colleges. Their brains and energy and power of development are at present far in excess of their material resources. A most wholesome condition of things doubtless, but it would be good economy for the country to utilise this latent energy

of development, this locked-up or potential metabolism, and to liberate it for the benefit of the whole national organism.

But there is one caution which, for whatever my experience is worth, I feel bound to give. Do not attempt to do everything by means of endowment. Endowment for chairs there must be, large capital expenditure on buildings and equipment there must certainly be, but for current expenses I would say retain a large margin of dependence on the living generation. Keep in close touch with the community. Do not seek for independence or isolation. Encourage the leading men to take a living and personal interest in college government, and give them plenty of real power. Welcome civic control. Do not attempt to found an isolated institution for imported scholars to continue their researches, and to train youth in learning out of touch with the life and activity around them. Keep in close touch with that life and activity. In every new departure carry the community with you. An alien intrusive growth is not wholesome. No matter if it is of superior texture to the rest of the organism, if it is not properly grafted in, it is liable later to be extruded. Spare no effort to represent truly the highest ideals of the community, to raise them where you can, but never to proceed independently of them. Sometimes it may involve delay, no matter; it is better to proceed by wise and secure steps than by rapid ones; the effort of carrying the community with you will be good and educative for both sides. It is part of the function of the college thus to educate the adult community, and it will find itself surprisingly educated and raised out of academic ruts in the process. Some right steps may be delayed, but also some false steps can be avoided, and whatever is done will be done in a solid and permanent manner, in a time that is ripe, so that there shall be no going back. There is an education of the council by the senate, but there is also an education of the senate by the council; and it is by the interaction of the two that the most splendid and permanent results may be expected. I confess that the form of government of these university colleges, if well and wisely worked in accordance with the intention of the framers of the scheme, seems to me almost ideal. There have been colleges, or times in the infancy of a college—never in this one of Liverpool—when the professors have felt themselves too tightly governed, where they lacked freedom and initiative, where all control was denied them, and where accordingly they ceased to interest themselves in anything more than their own departments,—a set of detached teachers rather than a coöperative and coherent college. But the conditions never lasted long. Either reform was pressed for from outside, as at Cooper's Hill, or else a wiser course was evolved from within, as at some colleges which need not be specified. Citizens need education just as much as students, we all need education together, and a few years of college government is a splendid training.

But how are you to get annual contributions from the living? What is the mechanism? Students' fees are one source. I hope that these will not be abolished either in Scotland or elsewhere. It seems to me eminently appropriate that those who utilise an institution should contribute something to its maintenance. Abolishing fees would mean cutting off a most proper and wholesome and reasonable source of revenue, and substituting something far less natural and genuinely permanent. Who is to say how long large invested endowment will continue to bring in a satisfying interest? In a century or two that may seem an artificial and extinct source of revenue, but the contributions of the living will never be artificial or inappropriate. How, then, is it to be attained? A sustentation fund, in the ordinarily understood sense, is a trouble to the treasurer and a burden on the few notably benevolent citizens whose shoulders already bear so much, and whose bounty in order to be given to one thing must be taken from another. No, there is a better kind of sustentation fund than that. A sustentation fund to which everyone must contribute, an amount which nobody feels, and a resulting income which is really worth having. I mean a city rate, or a grant from the municipality equivalent to a rate. A ¼d. in the pound on a rental of £100 a year means 4s. 2d. Is there a single £100 householder who would resent such an annual charge as that, when he could be told that it meant £7,000 a year for the higher education of his town? And look at the capital that could then be set free for immediate development: it would be the equivalent of £200,000. One stroke, one municipal stroke, and your university might be founded. More is coming from the Government, I feel assured. This

country can no longer afford to neglect its higher education. More will be forthcoming from the Government, if more is forthcoming from the locality, the two will go together, and local support will, I expect, be the test of central contribution. It would act well all round. Every citizen would thus be contributing his mite. No citizen could any more be ignorant of what and where his university is, and it would keep us all in close touch with the life and the needs of the people. The end of my first message is:—Cultivate civic interest, and go for a city grant!

The influence of topography on development is very marked, and a city grant would have been easier to get if this college had been initially placed in a more central position, but through the action, wise or otherwise, of the late Mr. Cope this college has been placed here, for a definite reason—viz., in order to suit the medical school and the infirmary. Hence it is natural that those two institutions should have progressed with great rapidity since the college started. The infirmary has been wholly rebuilt, the medical school is rebuilding, and already in several of its departments, I hope that before long the same can be said for all, it is able to show a lead to the whole country.

It must have struck everyone connected with a college how much more thorough and complete the system of medical training is than the training thought sufficient in some other branches of practical learning. If it were like other departments there would be one professor of the subject, aided by two or three demonstrators, and there would be a two- or a three-years' course for students. The one professor would attempt to give or superintend instruction in anatomy, physiology, and pathology, in medicine, and in surgery, in forensic medicine, materia medica, and all the other branches now dealt with by an entire faculty. Fortunately the public realise that it would be unsafe for their bodies to limit the training of their future medical practitioners to a short course under one man and a few assistants. The vital importance of medical training to the community is realised, and accordingly it is entered upon in a thorough and whole-hearted way, with an adequate staff, plenty of subdivision, and exact attention to detail. But take some other profession. Take law, for instance, or engineering, or chemistry. At present one professor in each subject seems to be thought sufficient; and yet it would not be difficult to subdivide each of these great practical subjects into as many branches, or almost as many branches, as medicine. In Edinburgh, law is so subdivided, and its varieties are dealt with by six professors.

Take again commerce. There are places which are going to have a faculty of commerce. Towards such a faculty we are doubtless all feeling our way, but it seems to me that if we are to turn out men truly educated for the highest kind of commercial pursuits, if we are to raise the status of the commercial man into a truly professional position—a position which men of practical genius have already attained, and always will attain in small numbers by their own unaided abilities and strong character, if we are to raise the general level of commercial training and make it worthy of the greatness of the part which commerce plays and always has played in the history of the world,—we shall have to take a medical school as our pattern. One man cannot do it; a whole faculty is necessary, and the greater number of that faculty will, I expect, be men not holding endowed chairs, nor able to spare much time for teaching, but men really and actively engaged in the work itself; men of ability, leaders in business, who, like the prominent medical men in a city, may be willing to come down for an hour a day or a few hours a week, and give to students the benefit of their great and always growing experience. I do not say that it will be an easy matter to find men of business able and willing to do this, but I see no other way of getting it done that is likely to be half so good. I see no other way of dealing with the multifarious details and the immense variety of business transactions in such a place as this; and even now I feel that in this city we could put our finger on men who are competent to teach, and who might be willing to teach, and to fill up the outlines and fundamental principles laid down by a few endowed professors, from a sense of public spirit, and a feeling of duty which they owe to the coming generation and to the welfare of the country at large. So also some day it may be expected that, at one or other of the colleges, a theoretical faculty will arise, on lines not altogether different. And perhaps for all I know, in some places, a military and a naval college too. For all the professions, and for those

subjects which are going to be professions, the example of a medical curriculum with its five years of combined theoretical and practical training seems to me the one to follow, with modifications appropriate to special cases. A university has an advantage over a college in its ability to legislate for itself and to try educational experiments. At the present time such experiments seem absolutely necessary in education; the time is crying out for them, and the more that are wisely tried in various parts of the country the better.

One felt advantage of local self-government—viz., that each municipality can try its own experiments—is not limited to municipalities. Every city needs water and gas and electricity and locomotion and police and education, and the establishment of these things in every separate city is, or may be virtually, a valuable experiment in each case. Before undertaking such an enterprise, the city magnates pay a visit to other cities where they have already been successfully established, they are welcomed and lunched and shown round, and on their return home they proceed partly to copy, and partly to originate. The multiplication of municipalities is therefore wholly good; why should the multiplication of universities be considered bad? It is not bad at all. In other countries no one for a moment imagines it to be bad. No one even here seems to object to the multiplication of churches or of schools, nor even of colleges, but about universities there seems to be thought something dangerous. I suppose this to be due to the long period during which those altogether exceptional institutions, Oxford and Cambridge, reigned supreme in this country, and to the corresponding superstition which came to envelop a degree as with a kind of halo. Nowadays the halo does not fit. Every grade of degree exists already; the same degree is conferred upon a poll man who just scrapes through with a minimum of attainment, and upon the first-class classic or the high wrangler; and the public already know quite sufficiently well how to discriminate. Any university of the future which lets its degrees down will speedily suffer. The kind of student whom laxity attracts will soon bring upon it the desired discredit. But in saying this, I hope that the degree standard will not be of the same *kind* everywhere. I hope that we shall not all be trying to do just the same thing. There is ample scope for individuality and difference of treatment. Such diversity would be another gain from the multiplication of universities. Take this parrot cry of opponents and inscribe it on your banner; convert it into a cry for progress. Let every city become a university when it is worthy, but take good heed that it make itself worthy first. My second message is:—Multiply worthy universities.

I have spoken of the technical or professional training that is rightly undertaken in a modern university,—on the demand for this training its progress and sustenance must always be largely based,—but I wish now to say a word on one narrow aspect of the culture that will be imparted too, on the unity of learning generally, on the literary and humanistic studies that will be encouraged, and I hope enforced to some slight degree on every kind of serious student, technical and other, so that no wholly illiterate technical graduate will ever be turned out. And conversely I should hope that no cultivated man will be permitted to graduate in a condition of entire ignorance of the laws of nature. The old apologue about gilding the pill, or giving jam with a powder, or administering any nauseous drug by means of a palatable vehicle, must be a *very* old one. I found the other day that it must be at least as old as Socrates, for according to the report of an anonymous and amusingly paradoxical article in the *Journal of Education* last year, Socrates is reported to have said, while dining in an open-air restaurant with the special correspondent Xenophon before the latter left for the front, that dry bread is unsatisfying, and so is jam by itself, but that the right method is to escort each mouthful of solid nutriment with a dash of something tasty. The parable is applicable to the joint administration to students of letters and of science respectively, but it is pointed out that there seems to be a curious uncertainty as to which is the bread and which is the jam. To an untutored mind it would surely appear reasonable that the hard facts of science, linked by mathematical and other theories into a coherent whole, should constitute the main aliment and the best training of the intelligence, but that these cold truths should be enlivened and made more palatable by admixture with something of more human interest, appealing to taste and emotion,—a confection say of history and literature,—

wherewith to escort into the brain the dry facts of science. Ancient practice, however, seems to invert this untutored notion, and whereas teachers of science are expected to be lively and to show brilliant experiments, the schoolmasters who deal with human learning seem to have acquired a prescriptive right to teach their subjects by aid of books and methods of the utmost dullness, if they choose, and to be entitled to force boys to swallow them by methods which excite emotions quite other than pleasurable; so that, in fact, the boys make resolutions, and actually (as has been said) carry them out in later life, never again to open one of those beastly books as long as they live.

I wonder if there is not something wrong here. It is pointed out in the article to which I refer that whereas science may or may not be amusing or interesting or absorbing, it at any rate does involve solid fact, some of which must be known, and much more of which might be known with advantage, by every educated man. Science, in fact, if it is unattractive, is at any rate nutritious; but literature and the arts generally if they fail to be pleasing and exhilarating do lack one attribute which one would think that they ought to possess. Take the preliminary examination or entrance in arts, for instance; you see what I am driving at. I suppose it is utopian but I should like to see it attractive. There are many medical and other professional men to whom literature is a solace, and who cultivate a fine taste for it in later life; surely they must feel grateful for having had a reasonable and happy preliminary-in-arts training, and for the compulsion which made them take it at some period of their course. But the minutiae of grammar, and the technicalities of subjects in which we are never going to be anything but amateurs, are wearisome: I say this of the minutiae and technicalities of science just as much as of anything else, they are wearisome, except to those who are going to be specialists; scholars and pedants cannot tell how wearisome; these have in their minds niches and pigeon-holes gaping for these minutiae, they enjoy them and rightly enjoy them: to them they are alive and full of meaning; but to the youth with no storage capacity an accumulation of such facts is a mere rubbish heap, and his mind has the aspect of a lumber room, until after the examination when he sweeps it out. I verily believe that too much of school study, in every subject, is spent upon these dull and speedily forgotten minutiae. And at college let us discriminate between the studies which a man is going to profess and those of which he must needs have only a smattering, or what I should prefer to call a leaven. A professor of a subject cannot realise the scale or standard of the ordinary ignoramus, even of the average intelligent man. We are all ignoramuses to each other: reciprocal ignorance was largely the condition which prevailed round the senate-table when I was here, except of course in the case of the principal, who knew all subjects equally. But then we did not examine each other, we knew it was hopeless, we took each other's ignorance for granted; but we did not take the ignorance of examination candidates for granted, we set traps for their ignorance, and when we caught it we were properly indignant. I am not talking of higher studies or honours students but of elementary and general papers; these often seem to me too hard. Seldom or never can I do them.

I have been studying some school examination papers lately and I will take as an example geography. There was a paper on South Africa for a lower certificate set throughout the country. No doubt it was adapted to the teaching and to the book used; quite possibly the children answered it correctly; but there were places asked about of which a geographer to whom I showed it had never heard, and I doubt if the Colonial Secretary himself could have floored the whole paper. But now, taking geography as a kind of parable, an illustration which hurts nobody, suppose Africa, the whole of Africa, were being asked about. If the boy could sketch the position and the course of the Nile and the Congo and the Zambesi, if he knew the position and aspect of Cape Town and some of the ports and important coast stations, if he could place such countries as Morocco and Algeria and Dahomey, if he did not put the Transvaal in the middle of the Sahara—a location which some people are beginning to wish for it—he would know a good deal of what is really worth knowing and remembering, the kind of things which really are important to have in one's head, the kind of things he may remember to the end of his life although his work may lie in quite other directions. This kind of thing the boy

ought to know and know thoroughly, not in a temporary manner. Moreover, he must be taught to *understand* maps: he should understand something of how they are made, he should have some practice in actually making them. He must be able to read their meaning, as a traveller does, if possible. He must know the broad features of the surface of the earth and the great and salient facts of each country, and he should study some small interesting district with fair accuracy and completeness, as a specimen. But for the rest and for the minutiae he may refer to an atlas. Why seek to load the memory temporarily with a lot of detail? the memory declines to hold it for long, and it is a farce to ask questions on the hypothesis that such things can be really known in any useful or permanent fashion except by professed geographers. I do not mean that it is particularly hard to learn these little details and to hold them for a short time: some people find it fatally easy—I found it easy myself; but I deprecate the effort. It probably has indirect advantages, and I would not dogmatise: but when I hear talk about the General Medical Council raising the standard of the preliminary examination I get a little nervous. *Improving* the standard is all right, but raising it sounds dangerous. Very likely the recent pamphlet issued by that body is all on the right lines, I am not criticising it: so far as I remember it was on right lines and did suggest real improvements, but I do beg reformers to bear in mind the desirability of limiting the treatment of non-professional subjects to the main features and principles and outlines, to the things really worthy to be known and permanently known, and of seeing that these are known as thoroughly and pleasantly as possible, so that *taste* may be cultivated as well as memory, and a liking for subjects of general interest implanted—a wish to go further into them so soon as leisure permits. My third message then is (I trust that this part of my address is not too presumptuous—I give it with more diffidence than the rest):—Keep in touch with the schools, leave their teachers a judicious amount of freedom, let your control over school teaching be wise and cautious, and make the entrance or preliminary in arts attractive as well as compulsory.

The two functions of a university I have so far dealt with are both connected with the imparting of the inherited and accumulated wisdom and knowledge of the race—viz., (1) the awakening of interest and the development of intelligence; and (2) the implanting of such instruction and the training of such faculties as shall qualify a student for the calling by which he is to live.

But there is a third function of a university quite as important as the other two—viz., the increase or improvement of knowledge. Every improvement in knowledge tends to an increase of it, to actual discovery of new fact, but the actual attainment of discovery is not within our control, that comes sometimes unexpectedly, and seems to reward workers somewhat at random, but a steady attempt and desire to improve knowledge is within the scope of all. No one thing is known perfectly: it is remarkable how a familiar fact lights up afresh after a period of brooding on it in the light of theory and other facts. Thus it is, I suppose, that classical texts are improved, that the history of the past is deciphered, that works of literature or of art become better appreciated; and thus certainly it is that our knowledge of nature is gradually extended. The ancient formula of the Royal Society states that it exists "for the improvement of natural knowledge." I commend to your notice this word "improvement." I prefer it, as a conscious aim, to "extension." It leads to extension, but our primary aim should be improvement. Always seeking to know a thing better than we knew it before we shall find that as we get closer and closer to the heart of it, fresh and unexpected features make their appearance, appear as it were round a corner, and sometimes a whole landscape opens to the view. The guardians of knowledge *must* be improvers of it, else it begins to decay and to be lost. Constant effort is needed on the part of humanity to preserve intact even their material wealth. Leave things alone for a decade and nearly everything is rusted or moth-eaten or decayed. So it is also with the garnered fruits of learning, constant effort is necessary to preserve and improve them, and in the course of this effort discoveries will arise. The bringing down of fresh knowledge to the human race, henceforth to become part of its inheritance for ever: that is a daring and splendid achievement; it is given but to few, it is given only to those who strive early and late to improve and to increase that *of*

which they are already the custodians. A university is the corporate repository of learning, not of ancient learning only but of modern learning too; the most recently discovered fact of science there finds its natural guardians, and there it is that new facts should be born.

I commend this notion of "improvement of knowledge" to students—to every class of student. I confess that I am not enamoured of the phrase "research" when applied to the efforts of beginners. It is appropriate enough to the work of a Faraday, or of any master in science, but a beginner has no right to expect any but subjective discoveries, these latter he should constantly have in view; he should conscientiously set himself to improve knowledge, that is to say his own knowledge, to find things out for himself concerning any phenomenon that is set before him or which excites his interest, in whatever branch of learning it may happen to be; and if in the process he has the high good fortune to light upon something which his superiors consider to be of value, which is new not only to him but to them also, which is new to the world, he is heartily to be congratulated, and may feel thankful that he has received more than he is entitled to on his merits. The bare possibility of discovery awakens a kind of keen interest which nothing else can awaken, and the arousal of interest is the indispensable preliminary to real and lasting education. An atmosphere of constant effort towards the improvement of knowledge, with the accompanying stimulus of potential discovery, this is the atmosphere that should enfold every earnest student who enters the portal of a modern university.

## A Clinical Lecture

ON

### TUMOURS OF THE PAROTID GLAND.

*Delivered at St. Bartholomew's Hospital on May 29th, 1901.*

By H. T. BUTLIN, F.R.C.S., D.C.L.,  
SURGEON TO THE HOSPITAL.

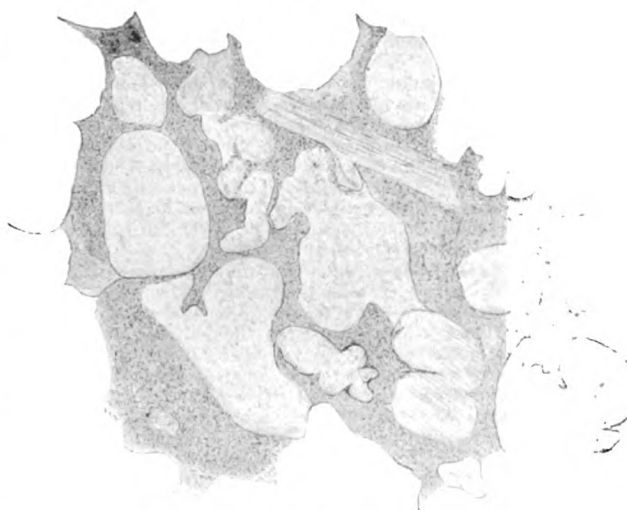
GENTLEMEN,—To-day I am going to talk, not on a subject with which I am very well acquainted, but upon a subject which has always been very difficult to me, and which I confess I am almost as much puzzled at now as I was when I first examined tumours of the parotid gland.

In the first place, let me say that tumours of the parotid gland present a very curious structure, and the structure has been either misunderstood or not understood properly—I cannot say which—by different observers during the last 25 or 30 years. As you know, the parotid gland is liable to tumours of two kinds—innocent and malignant. The innocent tumours in times past were sometimes called "enchondromata," when they were composed almost entirely of cartilaginous tissue; sometimes "chondro-fibromata," and sometimes "chondro-adenomata." At an earlier period still they were called "mixed parotid glandular tumours" or "parotid glandular tumours," "mixed connective tissue tumours," or "mixed tumours of the parotid," showing that they were composed of different kinds of tissue and that the exact composition of them was not a fixed quantity—that is to say, not nearly such a fixed quantity as it is in ordinary fibroma or sarcoma. Then people began to cut better sections of tumours and they were examined by more competent microscopists, or with better microscopes, or both combined. The men who examined them were in the habit of examining a large number of tumours of different kinds. They found a very curious structure in some of these tumours of the parotid—for example, a great part of the tumour was composed of connective tissue or of cartilaginous tissue, and then there were cells very similar to these cells which are represented here, which will do very well for the cells of a round-celled sarcoma. You see each one has its nucleus; the outlines are well defined, the cells are of

tolerably equal size and only a little larger than the cells of an ordinary sarcoma. Still, they were round and they were nucleated, and they would pass for the cells of sarcoma. But they were arranged in a very curious way. I have given you here a rough outline of a picture which I made many years ago when I used to examine these tumours. Here are the pictures of a tumour (Fig. 1 and Fig. 2) which was removed in Henry Ward in 1877, and attached are some old notes of it. These cells were arranged in this curious pattern, a sort of network or plexus, and the intervening space was filled in with either mucous or fibrous or cartilaginous tissue, as the case might be. Seeing that these round cells occupied a very large part, and seemed to be a very important part, of the tumour, histologists of that time considered that it was a round-celled sarcomatous tissue, and these tumours were called "mixed sarcomatous tumours." Sometimes they were called "alveolar plexiform sarcoma"; they were called "alveolar" owing to the spaces in them and they were called "plexiform" on account of this network of round cells.

When I wrote the first edition of the "Operative Surgery of Malignant Disease" and began to study the results of operations for tumours of the parotid gland I divided them, as I did for every other part of the body, into sarcoma and carcinoma, and then I collected together, as I had done for other parts, those I knew of in the hospital and those published in the Transactions of the Pathological Society of London and various other books and papers. I put together a number of cases of sarcoma, perhaps 29 at that time, and the results were much better than for sarcomata in other parts of the body. I found to my surprise that sarcoma of the parotid gland was a comparatively innocent disease. I wrote at that time: "The results are so much better than for almost any other part of the body that I am sometimes tempted to doubt whether there has not been a mistake in the estimate of the real nature of the tumour. Many of the most successful results are, however, reported from Billroth's clinic; many of the tumours, if not all of them, were examined by competent microscopical observers and were regarded as clear examples of myxo- and chondro-sarcoma. .... Of the most successful cases it may be shortly stated that the tumour, in the majority of them, was of small or moderate size and removed with little difficulty; it was not complicated by affection of the lymphatic glands; and that a single operation sufficed to rid the patient completely of the disease."<sup>1</sup> A doubt

FIG. 1.



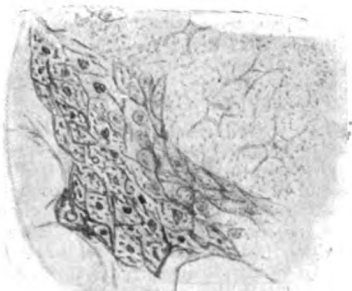
Under low power—to show plexiform arrangement.

passed through my mind whether these were sarcomatous tumours. In 1894, some years after that was written, Mr. J. Bland-Sutton published his book on "Tumours, Innocent and Malignant." In speaking of the parotid gland he made the following remark: "I am at the present time

<sup>1</sup> Operative Surgery of Malignant disease, first edition, p. 122.

unable to do more than direct attention to the chaotic condition of our knowledge regarding cancer of the parotid gland,"<sup>2</sup> and in that, I think, he included carcinoma and sarcoma. Then I began, a year or more ago, to work at the second edition of the "Operative Surgery of Malignant Disease," and when I came to the parotid gland I thought that I could probably deal with it much more readily than I had done 10 or 11 years previously. I have got the book here. I find that I looked out two papers in particular, one by a man called Nasse in 1892<sup>3</sup> and a second by

FIG. 2.



Under high power—to show oat-shaped cells like those of sarcoma, of which some of the trabeculae are formed.

Rudolf Volkmann in 1895,<sup>4</sup> and in these two papers an entirely different view is expressed of the nature of these tumours. These gentlemen—and I think on very good ground—express the opinion that these so-called myxo-sarcomas and fibro-sarcomas and chondro-sarcomas of the parotid gland are not sarcomas at all, but that they are endothelial tumours and that the networks and plexuses of round cells are endothelial cells derived from the lining of the lymphatics and the blood-vessels. That assumption would, of course, cut out nearly all the cases of sarcoma which I had included in the 29 cases. This view seems to have gained ground amongst pathologists, with the result that not only are the sarcomas of the parotid gland very much diminished in number, but sarcoma there has been almost suppressed, and some pathologists are inclined to say that there is no such thing nowadays as sarcoma of the parotid gland. And, further, there is great doubt in the minds of some of these gentlemen whether there is such a disease as carcinoma of the parotid gland. That shows how, in such a study as microscopical anatomy, there is room for an enormous difference of opinion, and how pathologists may at one time be of one opinion and a few years later they may hold a totally different opinion, or two schools of pathologists at the same time may hold, one set one opinion, and another set another opinion, as to the meaning of the structure of a disease. So when I had to deal with this question I found that I could not deal with it in the same way as I could deal with the tumours of other parts of the body, dividing carcinoma from sarcoma, and I was obliged to put them all together as malignant disease of the parotid gland, and to try to find out what happened to patients who really bore the mark of their tumours being malignant disease.

To-day I have come to the conclusion—and you will presently see how perplexing the subject is—that the old sarcomata should be called endotheliomata mixed or simple, and that they are quite innocent tumours, because they are generally encapsuled. They do not always shell out easily, because they are embedded in the substance of the parotid gland; but there is no glandular enlargement—they have no aspect of malignancy, either clinically or microscopically. I thought that I would like to show you some of the patients on whom operations had been performed, so I sent for four patients and three of them have come. One of them is a man who has only just left the hospital and the wound has not healed. His was a case of malignant tumour without a doubt. Another patient

is a woman on whom I twice operated, the first time in 1897, and removed a not very innocent-looking tumour which was said to be myxo-sarcoma with glandular tissue. It may have been an endothelioma. I operated upon her for a very bad recurrence in November, 1898, and I removed almost the entire parotid gland. I did not limit myself to removal of the tumour, because it was deeply embedded; it had spread so deeply into the structures about the parotid gland, and it seemed very malignant, and I felt that I had not taken it all out. She had facial paralysis after the operation, and I thought that I had cut the facial nerve through, but to-day you will see that she bears signs of paralysis of the lower part but not of the upper part of the facial nerve, and that she has only a very small recurrence of the tumour, and it does not bear any serious characters. If she will come into the hospital, as I think she will, I will remove it for her, and I shall be more hopeful of her case than I was before. Yet it is recorded as a case of malignant disease of the parotid gland on the second operation. Then comes the third case, a woman, 25 years of age. In 1898 she was operated upon, either at the end of October or at the beginning of November. I took out a small tumour, two inches by one and a half inches, from the parotid gland. There was no trouble with the facial nerve; the tumour was nodulated and moveable. Mr. F. A. Rose has copied from the notes that the skin over it was natural. At the operation the tumour was well encapsuled, easily dissected out, and when it was sent up for report it was described as a mixed-tissue parotid tumour—what I should now call an endothelioma. I sent for her to come up to show how nicely one can take out a tumour of that kind from the parotid gland, so as to leave a very small scar; there was no effect upon the facial nerve, and, in fact, it was what I considered to be a very nice case of surgery. Now that she is here I feel as if I should like to suppress her case, for she comes with a worse recurrence than the other patient. The tumour is attached to the scar and fills up the space between the mastoid process and the jaw, and so far from my being able to display to you my skill as a surgeon and the innocence of endothelioma of the parotid gland, her case illustrates neither one nor the other, and I am more puzzled than ever at the pathology of parotid tumours. The primary tumour was not a big tumour. I apparently took out the whole of it without difficulty, and I thought it to be perfectly innocent, while the microscope proclaimed it to be an endothelioma. Yet within four months of the operation it began to grow again and now it is as large as the tumour which was first removed. [Cases shown.]

The next question with regard to these tumours of the parotid gland is the effect on the facial nerve of innocent and malignant tumours respectively. On that point there is not absolute agreement, but there is a tolerable agreement amongst surgeons and pathologists that innocent tumours of whatever size seldom or never produce facial paralysis. Billroth pointed out some years ago that he believed that if a tumour of the parotid gland were associated with paralysis of the facial nerve that tumour would prove to be a carcinoma; he did not think that the innocent tumour or sarcoma produced paralysis of the facial nerve. But of course he had in his mind these tumours which I have spoken of which we do not now regard in the light of sarcomatous tumours. True sarcomas probably do affect the facial nerve. In proof of this I may mention a case which I had under my care in this hospital some two or more years ago. It was that of a female, 20 years of age, who came to the surgery with a small tumour of the parotid gland, in character very much like the tumour of that young woman who has just gone out. Although the tumour was moveable and perfectly circumscribed and apparently inclosed in a capsule, and although it had all the characters of an innocent tumour to the touch, yet it was associated with a slight paralysis, or rather paresis, of the branches of the facial nerve going to the orbicularis oculi. I took her into the hospital and we discussed her case in my class. I drew attention to the paresis of the facial nerve and then we discussed whether the tumour was likely to be innocent or malignant. I said that I had never seen an innocent tumour of the parotid gland which was associated with paralysis or paresis of any part of the facial nerve. So we come to the conclusion that in this case, in spite of the general innocent characters of the tumour, in all probability it was a more or less malignant tumour. I dissected it out and found it to be

<sup>2</sup> Tumours, Innocent and Malignant, p. 248.

<sup>3</sup> Langenbeck's Archiv, Band xlv., p. 233.

Deutsche Zeitschrift für Chirurgie, Band xli., p. 1.

inclosed in a perfect capsule, but the facial nerve ran right along the upper part of it and was just caught in the capsule, and hence the paresis. I dissected the tumour out with very considerable care and there was no further paresis or paralysis of any other branch of the facial nerve. The tumour was examined microscopically and was found to be a well-marked example of spindle-celled sarcoma. So I expected this patient to come back in a short time with a recurrence of the disease, and I thought that in all probability the recurrence would be of the upper part on account of the obligation which I was under to keep close to the tumour to avoid cutting through the facial nerve, which is a serious matter for a young person. She did, indeed, come back to the hospital two years afterwards with a tiny recurrent tumour, but instead of its being in the upper part it was in the lower part of the parotid gland, quite away from the place where I thought I might have left part of the capsule. I cut the recurrence out for her. It was circumscribed and moveable and again bore the characters of a spindle-celled sarcoma. That occurred two or three years ago, so that at any time we may have a visit from her, and then I may find that she has recurrence of the disease.

Curiously enough, in looking into the accounts of the surgery of parotid tumours a good many years ago I found that Billroth again, in his Clinical Lectures, says that although he has never seen paralysis of the facial nerve as a result of pressure of an innocent tumour or sarcoma of the parotid, he has seen it very frequently as a result of operations for the removal of these tumours; from which I judge that, believing the tumours to be malignant, he himself was in the habit of removing them very much more freely, and a larger portion of the parotid gland and tissue around, than we have been doing in this hospital. I cannot remember paralysis of any part of the facial nerve after an operation for removal of an innocent tumour, and I should speak similarly for the practice of my colleagues which I had an opportunity of watching when I was registrar here. Every surgeon here who had a parotid tumour to remove dissected it out with great care and I do not remember a case in which the facial nerve was wounded in the operation, and I wondered whether that was not due to the influence of Sir William Fergusson who was one of the greatest surgeons in London 40 years ago. A distinguished operator told me that when he himself was quite a young man and just beginning to get into practice a lady came to him with a small tumour of the parotid gland. She was a person in society, young and good-looking, and she was naturally very anxious about her personal appearance. He said to her, "Well, madam, you can have it removed." She said, "What will be the effect if I do have it removed?" He said, "I think you will do very well." She said, "What will be the effect on my appearance?" He said, "Well, it is quite possible that the facial nerve may be wounded in the course of the operation." As to that she asked, "What effect will that have upon me?" He replied, "Well, I am sorry to say that you will not be able to close your eye and your mouth may be a little drawn to one side." She consulted other surgeons, and among them Sir William Fergusson. She said to him, "What about this tumour?" He said, "Well, you can have it out." "But what about the facial nerve?" "The facial nerve? If anybody is fool enough to look for it he may wound it, but if you have it out the surgeon will not look for the facial nerve." That is the course we have adopted in this hospital. I read of the different relations of the facial nerve to innocent tumours of the parotid gland, how in one case it runs in front, in another case behind, and in another case right through the tumour. I have never seen the facial nerve running through an innocent tumour of the parotid, and I never have dissected the facial nerve from the surface of one of these tumours. I never have seen it underneath because I have not looked for it. I believe that that is the case with nearly all innocent tumours of the parotid gland. Keep close to the capsule and shell the tumour out carefully, and do not get straying about to find out the relations of the tumour to surrounding parts.

I must confess that the surgery of malignant tumours of the parotid gland here, both in my own practice and in that of everybody else, has not been, as far as I know, at all successful. I have removed a tolerable number of these tumours, possibly more than my share, here because I get a good deal of tumour surgery in the hospital. I have generally dissected the tumour out, keeping close to its capsule and being very cautious not to wound the facial

nerve if I could help it, on account of the disfigurement, and not to run into the vessels which lie in and beneath the parotid gland. I was of opinion that, taking into account the liability of the neighbouring lymphatic glands to secondary infection, and seeing what difficulties there are in a free removal of these malignant parotid tumours, the surgery of them must necessarily be very unsatisfactory. I was of that opinion until I began to write the second edition of my book, and on looking up the literature of the subject I came upon a paper by Mandowsky,<sup>5</sup> Professor Schüller's assistant, saying that Professor Schüller had made up his mind that the surgery of malignant tumours of the parotid gland was not as good as it ought to be because we did not deal with the cases in the same fashion as we dealt with malignant tumours of other parts of the body—of the breast, for instance. Professor Schüller had been acting on this for some time past, and had been removing not merely the tumour but had taken out the parotid gland by a regular set operation, clearing out the gland with the tumour in it and not examining too closely the tumour or the surrounding parts. He had been prepared for paralysis of the facial nerve, which is generally inevitable in complete removal of the parotid gland, but he entirely disregarded this, and he thought that disfigurement was a matter of no consequence compared with freedom from the disease. He devised an operation by which he laid back the skin, as I have done here, and instead of dissecting from below, as most people would do, to get hold of the great vessels and secure and tie them at an early period of the operation he began in front, raising the skin up off the masseter muscle and the glandular tissue. Finding the limits of the gland in front he dissected it out from the upper and front part, and secured the vessels by double ligatures as they were divided. He found that it was easy, or at all events not difficult, to clear out the entire parotid gland, of course with the facial nerve and the tumour. He found that as the operation proceeded the tumour and the gland, instead of having to be raised up in order to get at the deeper parts, gradually fell backwards, and so the operation was rendered more easy the further he got. I have practised this method on two or three occasions and I did so for this man whose wound is not yet well. Some of you saw the operation and you saw that the parotid did not fall backwards, but stuck to everything, and that I removed the disease with very great difficulty. The glands were affected at the lower part and I do not think that I entirely removed them. In fact, the disease was so extensive and the bone was so involved that I am sure that I did not take the disease completely out.

I am afraid that neither this nor any other operation will be of use against advanced malignant disease of the parotid gland. The limits of the gland are over-passed and the neighbouring glands are already affected. But against malignant disease at a much earlier period Professor Schüller's suggestion appears to be very reasonable. If you practise it by-and-by, as some of you may do, I am almost disposed to advise you not to study too closely the anatomical relations of the parotid gland. Your business is to keep close to the capsule which incloses the parotid gland and to take it away with all that it contains, including the facial nerve and, of course, the malignant tumour. While considering this lecture it occurred to me that I ought to make myself familiar with the neighbouring anatomy and that I would impress on you the number and nature of the parts which are in relation with the parotid gland. As I had forgotten some of them I took down Gray's "Anatomy" and read them through, and I confess that I was aghast at the perusal and wondered how I could have dealt with so many and such important structures and left the patient still alive. Yet here he is, and the other patients on whom I have performed a similar operation made quite as good a recovery. So I determined to advise you to do what I have just said: keep close to the capsule of the gland and secure and tie the vessels as, or even before, they are divided, and not to trouble too much about their names and quality. Make a large incision, and a second cross-incision if you choose, and expose the field of operation in such a manner that you can see well where your knife is working, and always remember that you are dealing with a terrible disease, and that risk of life and disfigurement is quite justifiable in the attempt to remove it thoroughly.

I wish I could give you some good rules for the early diagnosis of malignant tumours of the parotid gland. The

<sup>5</sup> Aertzlicher Praktiker, 1894, Nos. 32 and 33.

diagnosis is easy when the disease is advanced, but it certainly is not easy when the tumour is still well within the parotid gland. This is one of the points to which attention must be directed in future.

Now, gentlemen, I am conscious that this lecture is very defective. It is defective in knowledge of the diseases of which I have been treating and it is defective in knowledge of how to deal with them best by surgery, particularly the malignant diseases; but I chose this subject because every now and again I like to lecture on something which I do not know well, in order to review the subject and to see what new lights it presents, and if I am asked by any one of my past house surgeons or by somebody who is about the hospital to recommend them a piece of special work I am sure that nobody could do better work or work which is more likely to bring credit to himself and to surgery than he who engages in work upon these tumours. Let him take the whole subject up afresh and work from both a clinical and a pathological standpoint. The material in this hospital is very rich. He will find here a most interesting series of tumours, including one melanotic tumour of the parotid and one partly melanotic tumour of the same region. He will find also sections of a certain number of these tumours in the microscope box upstairs, and he will find a much better account of operations and the connexions of the tumour than he would have done years ago, particularly in my own wards, where the notes have been taken with considerable care by my dressers. He can search out patients and can trace them, and he can also use my private notes and drawings of parotid tumours removed in this hospital many years ago when I was surgical registrar. I wish that I could persuade somebody to take this up and to give some months to it. It is worthy of being the subject of a treatise for a degree at one of our universities; but I think it is worthy of something more than that: it might make a very good monograph—a monograph founded, I think, on extraordinarily rich material.

## DEVELOPMENTAL (MYELOGENETIC) LOCALISATION OF THE CEREBRAL CORTEX IN THE HUMAN SUBJECT.<sup>1</sup>

BY DR. PAUL FLECHSIG  
OF LEIPSIC.

(Translated for THE LANCET.)

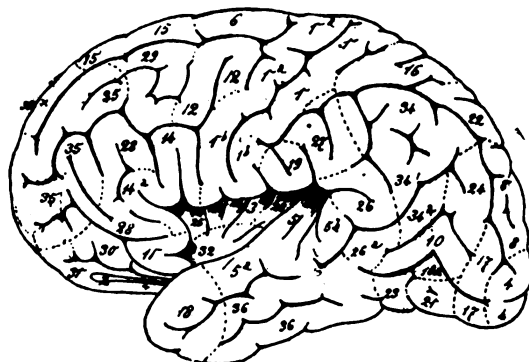
### I.

THE following remarks are founded partly upon researches carried out some time ago and partly upon unpublished new researches undertaken on the human subject exclusively, and therefore of especial value in this respect.

In the cerebral convolutions, as in all other parts of the central nervous system, the nerve-fibres do not develop everywhere simultaneously, but step by step in a definite succession, this order of events being particularly maintained in regard to the appearance of the medullary substance. In the convolutions of the cerebrum the investment with medullary substance (myelinisation) has already begun in some places three months before the maturity of the foetus, whilst in other places numerous fibres are devoid of medullary substance even three months after birth. The order of succession in the convolutions is governed by a law identical with the law which I have shown holds good for the spinal cord, the medulla oblongata, and the mesocephalon, and which may be stated somewhat in this way—that, speaking approximately, equally important nerve-fibres are developed simultaneously, but those of dissimilar importance are developed one after another in a succession defined by an imperative law (Fundamental Law of Myelogenesis). The formation of medullary substance is almost completed in certain convolutions at a time when in some it is not even begun and in others has made only slight progress, so that the convolutions are divided at certain periods of

age into regions which are (1) well provided with medullary substance, (2) scantily provided with medullary substance, (3) altogether devoid of medullary substance. Thus the convolutions come into existence sharply circumscribed areas differing in the stages of development of their elements<sup>2</sup> which I call myelogenetic cortical areas. These fields are constant in arrangement; they repeat themselves in essentially the same position and extent in all individuals of approximately the same age. The contours do not change perpetually with the progress of the medullary investment, but show during a certain period the same type, a fact which obviously depends upon the general character of the myelogenetic differences. It has been said (1) that the formation of medullary substance spreads from certain points in the cortex—to some extent in concentric rings—over the surface (Vogt), or that the order of succession in which the nerve-fibres receive medullary substance is in relation to the diameter of the fibres (Vogt), or (3) that this order of succession is in relation to the position of the blood-vessels (von Monakow). These opinions, however, are generalisations from accidental phenomena, and when treated as a whole they are found to be ill-supported and totally useless from a scientific point of view. (Fig. 1 and Fig. 2.)

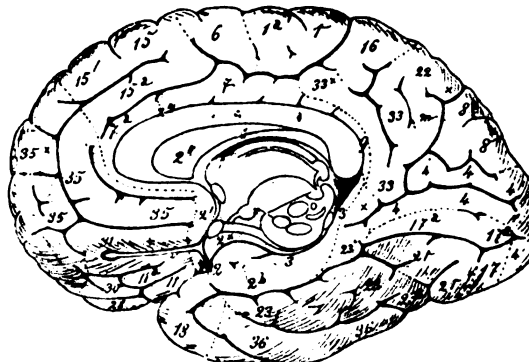
FIG. 1.



Cortical areas on the external surface of a cerebral hemisphere.

In my first memoir on the subject<sup>3</sup> I estimated the number of the myelogenetic cortical areas at 40. Further researches have shown that some of these must be combined into one, so that I at present distinguish only 38.<sup>4</sup> I find

FIG. 2.



Cortical areas on the internal surface of a cerebral hemisphere.

<sup>1</sup> The protoplasmic processes of the ganglion cells are also formed in different areas at different times. This is another instance of periods of time arranged in conformity with a natural law.

<sup>2</sup> 1898. *Neurologisches Centralblatt*, No. 21.

<sup>3</sup> In my report to the Paris Congress held in 1900 I pointed out that the number 40 must be taken as a provisional estimate. The diagrams of my cortical areas which Hitzig gave in the *Comptes Rendus* of the Section for Neurology (Pl. II.) are useless. They are neither copies of my drawings of 1898 (for here the areas nowhere show contours) nor of any other illustrations whatever that have been published by me. They are simply of the nature of misconceptions, enlarged reproductions of private communications (rough sketches) which being incomplete were not intended for publication and which in the form given to them by Hitzig can only lead to confusion.

<sup>4</sup> A paper read at the International Congress of Physiology at Turin. Owing to the operation of a time limit in the delivery of the address some passages here shown had to be omitted from the paper as originally written.

all to denote the areas simply by numbers (1 to 36) in accordance with their respective places in order of development, and therefore wholly chronological. In order to present a comprehensive view, and having regard to differences of a general nature, I have classified them in the three following chronological groups: (1) regions of early development (primordial zones); (2) regions of intermediate development (intermediary zones); and (3) regions of late development (terminal zones).

As the process of myelinisation presents no distinct intervals, the fixing of the limits of these groups is to some extent a matter of individual opinion; there are not as yet any definite landmarks to go upon. In my first memoir I assigned to Group 1 the areas which showed a comparative preponderance of medullary substance at birth at full term—i.e., the areas numbered 1 to 8. Further investigations have convinced me that as a rule the number of areas in which myelination has at least commenced before birth at full time is greater than this, including as a maximum the areas as far as No. 20, but sometimes only those as far as No. 12. The extent to which the medullary substance has spread at the time of full development of the fetus is therefore not available in all cases as a principle of classification. Nevertheless, the areas numbered from 1 to 10 have this in common, that in full-term fetuses the formation of medullary substance has, as a rule, not only begun in these areas but has advanced so far that it is perceptible to the naked eye. I accordingly reckon Group 2 from area No. 11 onwards. Under Group 3 I some time ago included those areas in which the formation of medullary substance (birth at full time being taken for granted) does not begin until after the completion of the first month of the child's age. This applies, as a rule, to the areas numbered from 32 to 36, occasionally, also, to No. 31; but this last-mentioned area appears to me to present individual variations of a special kind.

## II.

The general significance of the myelogenetic localisation of the cortex may be put into words as follows. Every area possesses a special anatomical position and, therefore, also a special functional importance. For a great number of the areas this can now be absolutely proved. [The objection that the recognition of 36 different "organs" in the cortex means a falling-back to the phrenology of Gall, and other objections of a like kind, may be met by a simple reference to the fact that it was the myelogenetic parcelling-out of the surface of the brain which for the first time provided tangible and comprehensive anatomical data for the scientific solution of the questions involved, and which revealed points of difference that had not up to that time been even suspected.] The average size of a cortical area (about 20 square centimetres—three and a quarter square inches) is very considerable when compared to the much smaller dimensions of the medulla oblongata with its many centres.

Anatomically, the areas forming Group 1 (primordial zones) are distinguished above all by their great richness in projection fibres (fibres leading to and from sub-cortical centres). This group contains the points of entrance of all the channels conveying sensory impressions to the cortex. Every sensory peripheral end-organ has corresponding to it in the cortex a well-defined region of early development (primordial zone)—the cortical sensory centre or sensory area. Area No. 2 is the olfactory centre, No. 4 is the visual centre, No. 5 is the acoustic (cochlearis) centre, and so on. From pathological and other phenomena area No. 1 may be regarded as the end-organ, especially of the posterior columns of the spinal cord and consequently of the posterior roots; the nerves of the skin and muscles seem to be represented here side by side. For many primordial zones (as for instance the gyrus subangularis No. 10) it is for the present unknown whether they are in relation with any peripheral end-organ at all.

The individual sensory areas are separated from one another by wide tracts of cortex (intermediary and terminal zones) in which sensory fibres cannot be followed up. Moreover, the known motor fibres originate in and immediately beside the regions of early development (primordial zones), such as the pyramidal tract in No. 1, the motor part of the inferior fornix in Nos. 2 and 3, the inner fasciculi of the ventral part of the cerebral peduncle (pes or basis or crura pedunculi) in Nos. 16, 6, 12, 14, and 15. Only with respect to the external fifth of the pes pedunculi

(column of Türk) is there a controversy as to the cortical regions of origin (Nos. 5 and 36). From No. 4 a set of fibres can be followed (in secondary degenerations and in newly-born infants) up to the central medullary substance of the anterior corpora quadrigemina; these fibres are lost in the "secondary" visual radiation (Flechsig). Therefore to every sensory path there corresponds a motor (corticofugal) tract. One may speak, therefore, of conjugate tracts or columns (Strangpaaren). With regard to their position within the corona radiata, they in general follow the law that corticopetal lines of communication are placed laterally with respect to the centrifugal ones.

In the primordial zones the corticopetal and corticofugal fibres do not mingle uniformly. It may be specially remarked with reference to No. 1 that the tactile radiation passes over for the most part into the posterior central ascending parietal convolution and only with a few fibres into the anterior central, whilst the undoubtedly motor pyramidal tract originates to a great extent from the anterior central ascending frontal convolution and to a less extent from the posterior one. Area No. 1 is therefore composed of a preponderating sensory and a preponderating motor division. A purely sensory or a purely motor area cannot be outlined anywhere. The auditory sphere (No. 5) to which fibres lead from the internal corpus geniculatum and thalamus, which may be denoted as the auditory radiation (and eventually as the cochlearis radiation)<sup>1</sup> according to my researches (in cases of secondary degeneration), sends fibres into the column of Türk—fibres which to all appearance terminate in the pons and convey corticofugal impressions. Whether they are to be considered as motor fibres is not quite decided. To all appearance their origin projects somewhat beyond the region of the auditory radiation and extends also to the part of the second temporal convolution hidden in the first temporal furrow; it is therefore a cortical region immediately adjacent to the auditory sphere. It is very questionable whether the convex part of the second and third temporal convolutions belong to this zone. In the cortex they lose the arrangement of the fibres which is characteristic of motor regions, whilst this type is very prominent in the auditory sphere and immediately beside it in the second temporal convolution. Therefore in the event of the columns of Türk fulfilling motor functions (motions of the body and head in consequence of auditory impressions?), it will have to be admitted with respect to the auditory sphere that here a motor and sensory area are united in such a way that they partly coincide and partly perhaps do not coincide. Here, as in the cortex generally, an entirely motor or entirely sensory area is not recognisable.

In the regions of late development and in most of those of intermediate development the corona radiata is not represented. The projection fibres therefore undoubtedly diminish in number here in comparison with the primordial zones. This is the case not only in newly-born children, but also in children of the age of four, five, seven, and eight months. It has been said that the scanty occurrence or complete absence of the projection system in the cortical areas of late development is quite an illusion, and that the corona radiata appears here only at a later stage, but this objection has little to support it. At no period of age do I find clearly differentiated fasciculi of the corona radiata. Some projection fibres may be recognised in the intermediary zones and occasionally also in the terminal zones, but they sink into insignificance in presence of fibres of a different kind.

The normal adult brain presents conditions too complicated to permit of positive opinions being arrived at. But two of the most important projection systems (the fasciculus longitudinalis inferior and the cingulum) have been declared to be association systems, and the descriptions of the brain in the most recent articles by von Monakow, Déjerine, and others propagate these quite incomprehensible errors as if they were established facts. Nowhere in adults do I find fasciculi of the corona radiata which might not occur in children aged three and a half months, the children having been born at full time. In them the extension of the corona radiata can be clearly seen, and it is plain that the convolutions which contain abundance of projection fasciculi have others opposite to them in which it is hardly possible to find one such fasciculus.

It is also a complete mistake to assert that secondary

<sup>1</sup> The position of the vestibularis conducting fibres in the corona radiata is not yet determined; indeed it is by no means proved that the semicircular canals are in connexion with the cortex of the cerebrum although it is extremely probable.

degenerations in the adult human subject prove the contrary. If everything that has hitherto been published in support of this view is brought together it will be found that not even half a dozen cases are recorded which supply incontestable data, and of these the majority are referable to two areas, No. 1 and No. 4. For the other areas neither von Monakow nor Déjerine has quoted cases which could really decide the question in terms of the corona radiata. I wish here to make this statement only for the last three terminal zones, since Déjerine has said that he has specially investigated uncomplicated cortical lesions, even quite superficial ones, of these regions, and has always found fasciculi of the corona radiata in a state of secondary degeneration. But taking the case of area No. 36, in the alleged uncomplicated lesions of this area there is always accompanying derangement of either the first temporal convolution (acoustic sphere) or of the visual radiation. With regard to area No. 35, Déjerine describes what he calls an uncomplicated superficial lesion and deserves our thanks for having given a drawing which enables an idea to be formed of its extension in the direction of depth. From this it is evident that in reality the primary softening of the first and second frontal convolutions has not only reached the corona radiata of the gyrus fornicatus traversing the frontal medullary substance but has partially disorganised it, and it is anything but surprising that secondary degeneration of the anterior pedicle of the optic thalamus should be transmitted in the thalamus to regions the connexion of which with the gyrus fornicatus can be recognised from a study of the history of their development. How little all these drawings prove is abundantly plain from the fact that in the same case an identical degeneration is found in the optic thalamus on the opposite side, but is here due to a focus of disease "in the third frontal convolution."

Finally, the case of superficial disorganisation of the gyrus angularis (area No. 34), a lesion which is in this instance alleged to be uncomplicated, is in reality not concerned with this convolution exclusively, for areas No. 26, No. 27, and No. 5a are also disorganised. Neither is the softening limited to the cortex; on the contrary, it has penetrated to the optic radiation (corona radiata), so that on every sound principle there is no reason for bringing the secondary degeneration found in the corona radiata and optic thalamus specially into relation with the degeneration of the cortex of area No. 34.

Moreover, the cases of foci of subcortical softening, which have served for investigations of secondary degeneration in the corona radiata, entirely fail to support the opinion that the terminal zones No. 34 and No. 35 are provided with a corona radiata. In a case described by von Monakow, in which there was a focus of softening in the thalamus opticus with fibres of the corona radiata in an alleged state of secondary degeneration present in the whole of the upper part of the cerebrum, not only was the examination made by a quite inadequate method (the use of carmine) but the case was, moreover, so greatly complicated by the occurrence of numerous milary foci in the parieto-occipital lobe that definite conclusions seem to be impossible. Everyone who has been to some extent engaged in the investigation of milary foci of softening knows that secondary degenerations may proceed from each one of them. The account of the finding of degenerated fibres (and cells) in area No. 34 (?) given by von Monakow says nothing as to the origin of these fibres. In like manner a case recently described by Proft (discovery of Marchi's strata in all three frontal convolutions, &c., in a case of hæmorrhage in the thalamus) is so ambiguous that it cannot serve as a proof of the presence of a corona radiata in area No. 35. For instance, in it both pyramids showed degeneration. If Proft's interpretation is accepted it would therefore have also to be inferred from this observation that both pyramids of the medulla oblongata are in relation with the thalamus opticus of the right side—a thing which is most improbable.

In the present state of knowledge on the subject of secondary degenerations I think that it is extremely unscientific to attempt to infer that "the pathological method" has absolutely proved that all the convolutions of the cerebrum are equally provided with a corona radiata. In conclusion I ask, Why is there no doubt as to the central convolutions and the visual sphere possessing an exceedingly effective corona radiata? Why cannot it be demonstrated in the terminal zones?

### III.

Clinical observations of the symptoms produced by lesions of various cortical areas give results which agree very satisfactorily with those obtained by a study of the developmental conditions of those areas. Disorders of the motor and sensory functions are observed only in lesions of the primordial zones. The motor zone delimited by Charcot coincides with area No. 1; the zone defined by Henschen (the most reliable worker in this field), lesions of which always interfere with vision, coincides with No. 4, and so on. Of localised symptoms which occur in lesions of the intermediary and terminal zones the only known forms are some that involve (1) interference with speech (alexia, optic aphasia, sensory amnesic aphasia, &c.), and (2) partial amnesia (optic, for example). The time to localise these symptoms more definitely has not yet arrived. The question will ultimately reduce itself to this—whether the structures concerned in these obviously preponderating association disorders are the intermediary and terminal cortical zones (i.e., their ganglion cells), or are only deep-seated association systems (i.e., nerve-fibres), as Wernicke and others suppose. I consider it, however, to be extremely unsettled, and it will be impossible to come to a satisfactory decision without a more intimate acquaintance with the whole mechanism of association—namely, of the nerve-fibres and the connexions which they form between the different areas.

From my observations on the child I am led to believe that the opinions which have hitherto been held regarding this mechanism are erroneous, at least so far as concerns the so-called long association system. The fibræ arcuatae which unite every two neighbouring convolutions are found between all the areas which immediately adjoin one another. Areas which lie further apart are united by long tracts, and it is to be observed that their anatomy is as yet incomplete in the highest degree. All the areas with long tracts are by no means in effective connexion. The areas differ with respect to the corona radiata and they also differ in a most extraordinary manner with respect to the long association systems. The terminal zones are the richest in them; they are the endings of the long association systems. On the other hand, no long association system is known which connects two primordial zones that are to be regarded as sensory centres. The fasciculus longitudinalis inferior, which is always quoted as an example of this, is in actual fact a projection system, the real optic radiation, the line of transmission of optic stimuli from the external corpus geniculatum to the visual centre in the cortex, and this can be demonstrated in the newly-born so conclusively that all objections to it must fail. If a visual and an auditory impression meet one another anywhere in the cortex of the cerebrum, this can only happen through the instrumentality of the intermediary and terminal zones. If the mutual interference of the stimuli is a preliminary condition of the association of their mnemonic impressions, the cortex of the intermediary and the terminal zones will be indispensable for this purpose also. They are therefore association centres; and this view is strongly confirmed by the clinical observation that in lesions of the region lying between the visual and tactile spheres it is association troubles that occur, the best known of which is sensory alexia.

The objections which have been raised against these views on the grounds of comparative anatomy, experimental observation, and the study of the successive phases of development are not very weighty. If the development of the medullary substance is studied in the lower animals it must not be forgotten that they are without exception much less favourable for the purpose than the human subject is. Here it is a fact of primary importance that in the lower animals the process passes through its stages much more quickly than in man—in the cat, for instance, in about one-fifth of the time. All the phases of the development are brought much closer together. The number of the areas in the cortex is considerably less (in the dog Dr. Döllken could hardly reckon 20), and the size of the areas of late development is much greater in the human subject than in the lower mammals, so that in the human subject not only do all the points of difference continue unchanged over far larger spaces of time, but they also take much clearer and more distinct shape. The fundamental laws of development come better into view in the human subject, in like manner to the degree in which the human intellect excels that of the lower animals.

## ON THE PROTECTIVE SUBSTANCES OF IMMUNE SERA.

By E. W. AINLEY WALKER, M.A., M.D. OXON.,  
RADCLIFFE TRAVELLING FELLOW, UNIVERSITY OF OXFORD.

(From the Bacteriological Institute of Berne and the Pathological Laboratory of the University of Oxford.)

## PRELIMINARY COMMUNICATION.

THE experiments on which the following arguments are based were made originally in the Bacteriological Institute at Berne during the early months of the present year.

1. If the M. L. D. (minimum lethal dose) of a given bacterial culture be determined and the dose of immune serum necessary to protect against this M. L. D. be called its serum equivalent, it has been observed that if an animal be now given two M. L. D. and two serum equivalents it is not protected but dies from the infection. This has been explained as due to a deficiency of addiment in the animal concerned, but in reality it is only due to a deficiency in the amount of immune body given in the immune serum.

For if  $d$  be the M. L. D. and  $e$  the largest dose of the bacterium found not fatal,  $s$  the dose of serum necessary for protection in the first experiment with one M. L. D., it follows that since the animal can itself protect against a dose of  $e$  the serum  $s$  was protecting only against  $(d-e)$  of the bacterium when one M. L. D. was given. When, therefore, we proceed to give two M. L. D. we require serum protection against a dose of  $2d-e$  and this requires  $\frac{2d-e}{d-e}s$  of the

serum. Similarly three M. L. D. require  $\frac{3d-e}{d-e}s$  serum and

four M. L. D. require  $\frac{4d-e}{d-e}s$  serum. Experimentally, if serum be given according to this formula the animals are found with the bacillus used—the bacillus typhosus—to be completely protected up to and including the fourth M. L. D., and only after this point is passed does a deficiency of addiment appear, as may be seen below, where the serum-equivalent of one M. L. D. is called the serum unit,  $d$  being 0.075 of a given culture,  $e$  0.05 of the same culture, and  $s$  0.025 cubic centimetre of immune serum per 100 grammes of guinea-pig.

Guinea-pig	1	given 1 M.L.D. and	1 serum unit; recovered.
"	2	" 1	" " died in 16-18 hours.
"	3	" 2	" " units; recovered.
"	4	" 2	" " died in 18 hours.
"	5	" 3	" " recovered.
"	6	" 3	" " died in 14-16 hours.
"	7	" 4	" " recovered.
"	8	" 4	" " died in 18-20 hours.
"	9	" 5	" " died in 14 hours.
"	10	" 5	" " " "
"	11	" 6	" " " "
"	12	" 6	" " " "

In another series of experiments made in Oxford with a more virulent variety of the bacillus typhosus the deficiency of addiment appeared at the fourth M. L. D. In working with the immune sera it is therefore necessary to employ the formula above arrived at in order to determine accurately the amount of serum which contains the quantity of immune body required for any given multiple of the M. L. D. of the bacterium concerned.

2. On the observed deficiency of addiment in experiments with multiples of the M. L. D. of a bacterium Professor Ehrlich founds a theory of the specialism of the addiment to the species of animal in question. He holds that an animal can only make use of its own addiment or of that of others of its own species, and hence endeavours to explain the fact that immune serum does not supply the lack of addiment observed. But this view is out of harmony with the experimental facts. Thus Wassermann found the addiment of fresh ox serum satisfactory to guinea-pigs and to the immune serum of dogs which was used for their protection. Ehrlich and Morgenroth have observed similar relations in their work upon the hæmolysins. The following experiments further show that the deficiency of addiment can be supplied for guinea-pigs treated against typhoid fever with immune serum

of the horse by the fresh serum of the ox, the rabbit, and the pig:—

No. of guinea-pig.	Received			Result.
	M.L.D.	Serum units.	Fresh serum.	
1	10	28	—	Died within 16 hours.
2	"	"	Rabbit's, 1 c.c.	" " "
3	"	"	" 2 c.c.	Recovered.
4	"	"	Ox's, 1 c.c.	Died in from 20 to 24 hours.
5	"	"	" 2 c.c.	Recovered.
6	"	"	Pig's, 1 c.c.	Died in from 26 to 28 hours.
7	"	"	" 2 c.c.	Recovered.

Hence freshly won serum of the three different animals examined can supply the lacking addiment for guinea-pigs. The same may probably be true of other normal sera. I therefore claim that addiment is not so special to the species as Professor Ehrlich thought.

But if the sera of these animals were kept for a few days in the ice-chest they were found to lose their power of addimentary action; that is to say, their addiment disappeared and guinea-pigs which received the same and even much larger doses of the normal sera than in the above experiments were no longer protected. Further, the addiment of the fresh-won sera was found to be destroyed by their exposure to a temperature of 53° C. during an hour. On both these grounds it follows that the addiment of the bacteriolytic action here in question is extremely labile, being destroyed by a temperature of 53° C. and disappearing naturally from separated serum with considerable rapidity. And I conclude, that the reason why immune serum which supplies immune body fails to yield addiment to the infected animal is that the latter, owing to its extreme lability, is altogether absent from stored immune serum, and not that owing to its specialism it is unavailable by a species different from that of the animal which supplies the immune serum.

3. Coming next to the question of what addiment consists we have the following facts. Anti-microbial sera have *in vitro* no bacteriolytic action—they contain immune body but addiment is absent. They may be rendered active by cellular action, as, for example, by a sojourn in the peritoneal cavity of a guinea-pig. The activity thus obtained is destroyed by heating to 56° C.—destruction of addiment. It is restored by the addition of normal serum (Bordet) or of leucocytic fluids (Hahn). Moreover, an inactive immune serum which has not been subjected to the action of the peritoneal surroundings can similarly be rendered active by the addition of leucocytic fluids (Bordet's phenomenon) and a definite relation exists between the mass of the leucocytes added and the degree of bactericidal power obtained (Bordet). Again, a bacteriolytic pleural exudate has been made entirely inactive by the removal of its leucocytes, active again on their replacement (Denys and Havet). Further, it has been shown above that addiment is present in fresh normal sera from which it disappears on heating to a temperature of 53° C., or simply by keeping, and it was also found to be obtainable in other experiments from the fresh blood-clot of the animals already mentioned. It follows that the addimentary ferment is definitely associated with the leucocytes and is not a ferment circulating freely in the blood-plasma, as Ehrlich teaches. The leucocytes possess addiment even *in vitro* and can supply it to a serum from which it was previously altogether absent; and the addiment contained in the fresh sera is merely such as is set free by the destruction and breaking up of leucocytes.

4. It has been stated by von Dungern that the addiment is not increased in quantity during immunisation. If this were so it would imply that the newly-formed leucocytes of the leucocytosis, which admittedly occurs, are deficient in their characteristic and essential ferment; and this is almost inconceivable. Moreover, if new addiment is not formed it should be found impossible to immunise an animal to withstand a larger dose of the infective agent than that number of M. L. D. at which deficiency of addiment appears in unimmunised animals—e.g., in these experiments four M. L. D. of bacillus typhosus; and this is evidently not the case. Experiments, however, have shown that long after deficiency of addiment has become evident it remains possible, by giving

a large excess of immune body (immune serum), to protect the infected animals which thus have time allowed for the formation of fresh addiment by the provision of excess of immune body which enables the new addiment produced to deal with the bacterial multiplication occurring in the interval. Thus, though deficiency of addiment was evident at five M. L. D., and the immune serum contains no addiment at all, yet it was possible by an excess of serum to protect against 10 M. L. D. The addiment, therefore, undergoes increase during immunisation.

5. The immune body is formed by leucocytes. For let that atom-group of the bacterium which is taken up by cell-receptors in the animal and thus excites the formation and splitting off of immune body be spoken of as the I-group of the bacterium. Then the corresponding receptor must be present in the leucocytes, for thus only can be explained the destruction of bacteria in the naturally immune since the plasma of such animals contains no immune body. On the injection of bacteria in immunisation these receptors will give rise under the stimulating influence of the I-groups to a formation of the immune body by their proliferation and splitting off into the plasma. But even if suitable receptors for the I-groups were present in other tissues besides the leucocytes and could similarly give rise to the formation of an anti-body to these groups of the bacteria, this would not constitute true immune body. For the latter is supplied not only with an I-group haptophore, but also with an addimentophil haptophore, while the hypothetical antibody formed in other than the leucocytic tissues having no necessary relation to the addiment could only by an extreme coincidence possess a haptophore attractive to the leucocytic ferment. This difficulty did not appear so long as we could hold with Ehrlich that the addiment was a general metabolic ferment circulating freely in the plasma and possessing a necessary relationship to metabolic cell receptors generally. But I have urged that this is not the case. And, further, there has recently been proved to exist a definite parallelism between the increase of immune body and the increase of certain forms of leucocytes during immunisation, while the experiments of Deutsch and others point definitely to the formation of the protective substances in the leucocytic tissues.

6. Agglutinins have been shown to bear a close relation to protection. What is the nature of this relation? In anti-microbic sera we have at least two functions—namely, (1) bacteriolytic and (2) antitoxic, against intracellular bacterial toxins set free by the bacteriolysis. Such antitoxic action we have found by experiment to exist in the antityphoid serum here in question. Agglutination can have no relation to this antitoxic action against intracellular toxins, for it occurs equally with living as with dead bacteria. Its relation to protection must therefore be a relation to bacteriolysis. But it is not concerned in lysogenesis, which is a function of the action of immune body to addiment alone; for agglutinins cannot actually be the immune body, as supposed by Grüber, since they are formed in the lung tissue (Deutsch and more recently Moersch also), while immune body is a product of the leucocytes. Hence it is probably in relation with the only other factor in bacteriolysis—namely, the phagocytic process, which is evidently assisted by the faculty possessed by the agglutinins of bringing the bacteria together in larger or smaller masses and at rest and by the change which they induce in the bacterial envelope. And I suggest that just as in the final and essential stage of the destruction of bacteria the chemical digestive action of the addiment of the protective cell is aided by a chemical change produced in the bacterial substance by the immune body, so in the preliminary or phagocytic stage the physical process of ingestion is aided by the physical alteration induced in the bacteria and their activity by the agglutinins.

*Conclusions.*—1. Addiment is not extremely special to the

species. 2. Addiment is a leucocytic ferment. 3. Addiment is increased during and by immunisation. 4. The immune body is produced exclusively by the leucocytes. 5. Agglutinins assist the phagocytic process.

Oxford.

## GYNÆCOLOGICAL CASES.<sup>1</sup>

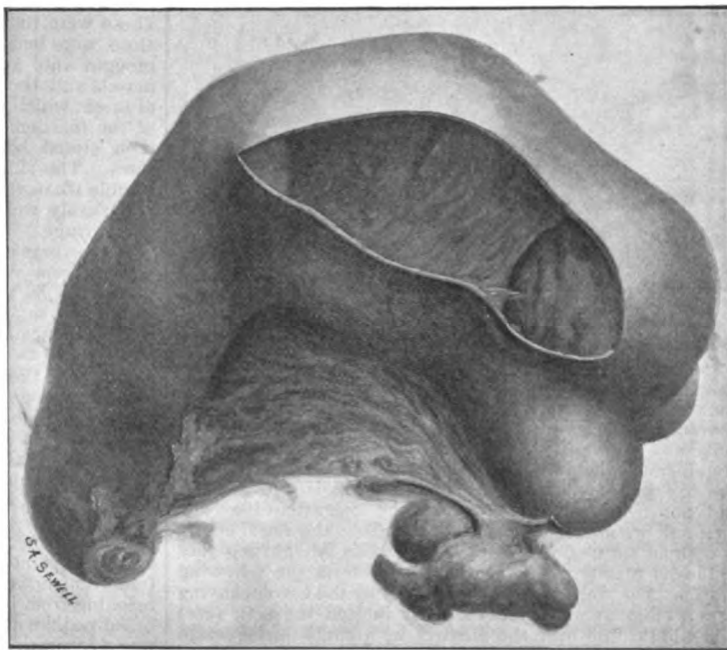
By H. MACNAUGHTON-JONES, M.D., M.Ch. R.U.I.,  
F.R.C.S. IREL.

DR. MACNAUGHTON-JONES, on exhibiting the cases, said:—

*Primary tuberculosis of the Fallopian tube with pyo-salpinx.*

—These appendages were removed from a patient, aged 22 years. She had been married for two and a half years at the time of the operation and had completed her first pregnancy at the end of the first year of her married life. She was brought to me by Dr. H. Disney in January, 1901. She then complained of considerable and constant pain in the left side, with inability to walk, and dyspareunia. The catamenia had been regular and normal. On examination I found the adnexa on the left side to be much enlarged, softened, and very sensitive. The right were not enlarged, but I could distinctly feel adhesions. I advised immediate operation, either exploration by colpotomy or abdominal celiotomy, the affected adnexa to be dealt with either by removal or resection according to circumstances. This was practically agreed to, but by the advice of a distinguished obstetric physician who saw her immediately after I did operation was declined and the hope was expressed by him that by rest and a course at Woodhall Spa none would be required. I did not see the patient again until the day before I operated on her. This was on July 10th, 1901. Pain had then been for some time agonising, and she herself demanded operation. The condition of the right adnexa can be judged from the specimen (Fig. 1).

FIG. 1.



Primary tuberculous pyo-salpinx. (Sac opened.)

The Fallopian tube was distended with pus, forming a long crescentic swelling one and a half inches in diameter at its widest part, the surface of the tube being adherent. "The right ovary, though fixed by some adhesions, was healthy. A large cavity filled with serous fluid (perimetric cystoma) had formed behind the meso-salpinx and between the

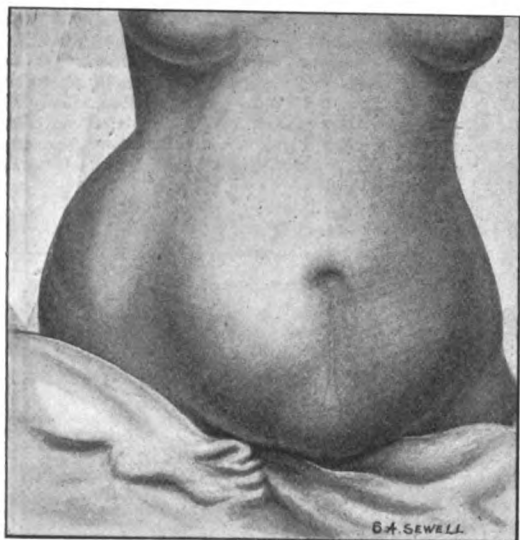
<sup>1</sup> A paper read before the British Gynæcological Society on Oct. 10th 1901.

distended tube, the ovary, and the adjacent viscera." The following is the conclusion of Mr. J. H. Targett's report on the specimen: "The external surface of the specimen is covered with thin fibrous adhesions in which many miliary tubercles are embedded. The lumen of the tube is filled with thick caseous pus and the inner surface is shaggy from ulceration of the mucous membrane. There is very little thickening of the wall of the tube anywhere and in some parts it is much thinned by distension and ulceration. Microscopical sections of the undilated uterine end of the tube exhibit general thickening of the mucous membrane and infiltration with miliary tubercles. The epithelial lining is for the most part intact."

This is the second case I have had of primary tuberculosis of the Fallopian tube in a young woman otherwise in perfect health, and with no family history of tuberculous disease. The first which I have reported in full elsewhere<sup>2</sup> was complicated with hæmato-salpinx. The particulars of the last case speak for themselves. The patient made an uninterrupted recovery.

*Large hernia following on cœliotomy operations.*—This was the largest post-operative hernia I have ever seen. The drawing, which was taken from a photograph, gives a fairly good idea of its extent. When I saw the patient in May of the present year the bowel was down in a large sac which protruded over the pubes, where there was a more defined pouch, covered only by the integument (Fig. 2). A

FIG. 2.

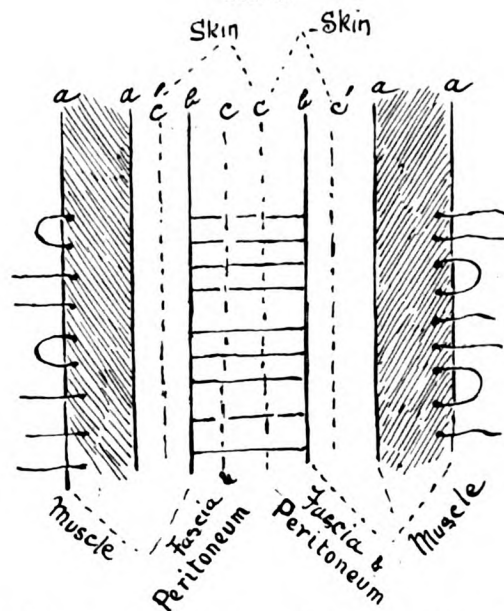


Before operation. (From photograph.)

large space of several inches separated the recti muscles and fascia. The bowel appeared to be adherent in parts to the parietal covering. The patient was subject to recurrent attacks of severe pain and had to be confined to bed for several weeks before operation. This was due to attacks of subacute peritonitis. The old cicatrix extended from a short distance below the umbilicus to about two inches above the pubes. Cœliotomy had been twice performed. I did not learn until the day of the operation that the abdominal wound had been closed after the last operation without sutures, the parts having been brought together by adhesive plaster. I determined to perform the following operation. The steps may be understood by the accompanying diagram (Fig. 3). Having carefully incised the skin (c c) in the middle line over the cicatrix by a cautious dissection vertical to the bowel, which was immediately subjacent and in parts adherent, it was reflected back to the extent of some three inches at either side (c'). Some dense fascia (b) was then exposed continuously with the peritoneum and the fascia of the rectus (a a). This fascia also was raised and reflected back, the dissection including a portion of the rectus sheaths (a a). All bleeding points from adhesions of the bowel were secured. The whole omentum and bowel were then covered with a sterilised napkin wrung out of warm formalin solution. Mattress sutures were then carried

from side to side in the following manner. Two straight ovariotomy needles, each threaded with fairly strong silver wire, were passed parallel from the outer border of the rectus including the fascia, across, and passing under the dissected fascia were brought out at corresponding points on the opposite side. Six of these were carried alternately in the manner shown in the drawing, and a single strong wire was passed at the upper and lower angles of the wound. The

FIG. 3.



central ones were separated, and the napkin was caught in the centre and readily withdrawn between the sutures. These were then tightened, and the ends, twisted and cut close, were buried in the rectus muscle at either side. This brought into apposition a line of rectal fascia with the muscle and the underlying peritoneum, leaving a raised flap of fascia which projected at either side for the entire length of the incision. This was pared and made to overlap, and then closed with silkworm-gut sutures, which were cut short. The skin margins were then united. There was no trouble whatever after the operation, which the patient bore remarkably well, and she has since left this country on a long voyage.

*Very large fibromyoma; hysterectomy; recovery.*—The patient from whom this tumour was removed was a multipara, aged 50 years. Her last pregnancy was in 1890. She had never suffered any particular pain, and could not date the commencement of the growth. She noticed an enlargement some two years since, but only within the last few months had there been a rapid increase in size. The periods had been irregular in occurrence and quantity, and there was a considerable loss a few days before operation. On examination a large moveable abdominal tumour was found, semi-solid to the touch, and associated with the uterus, the cavity of which was over five inches in length. The abdomen was enlarged much beyond the size of that of the full term of pregnancy. I operated on Sept. 12th, the patient having a full knowledge of the dangers connected with the operation. The enormous tumour was found to be free from adhesions, and was delivered through an incision reaching from below the ensiform cartilage to the pubes. A broad pedicle attached it to the left broad ligament and there was a separate attachment to the uterus. The capsule having been completely detached by a circular incision and stripped down the attachment to the uterus was secured and supra-vaginal hysterectomy completed. The large broad ligament pedicle was then ligatured in segments and the tumour was detached. After removal it was found that the bladder had been opened. The wound was closed by catgut sutures and a catheter was retained. The operation lasted altogether for two hours and during the last half-hour subcutaneous (sub-mammary) injections of artificial serum were maintained. The anæsthetic given was chloroform. There was dangerous collapse on the delivery of the tumour and

<sup>2</sup> Diseases of Women, eighth edition, p. 622.

again towards the close of the operation. As there was some bleeding from the bladder it was washed out at intervals with a solution containing 30 minims of liquid extract of suprarenal capsule. The tumour proved to be a solid fibromyoma and it weighed 28½ pounds. Its size and shape can be estimated from the accompanying illustrations taken from photographs (Figs. 4 and 5). The table on

FIG. 4.

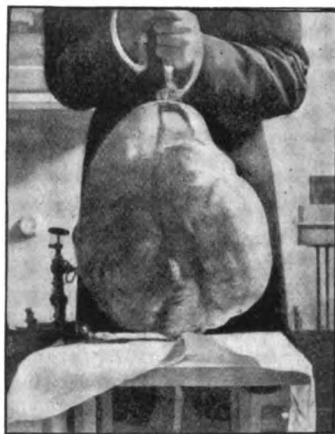


FIG. 5.



which the tumour rests measures 16 by 16 inches. (The uterus and adnexa are not shown.) So far, with the exception of some cystitis and pus in the urine, the patient has made an excellent recovery.

Harley-street, W.

### THE PREVENTION OF ASPHYXIA WHEN THE BIRTH OF THE AFTER-COMING HEAD IS DELAYED:

A HISTORICAL NOTE.

By G. F. BLACKER, M.D. LOND., F.R.C.S. ENG.,

OBSTETRIC PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL AND TO THE  
GREAT NORTHERN CENTRAL HOSPITAL.

THE danger of asphyxia to the child in cases of breech presentation where the birth of the head is delayed is always great, and with a view to obviating the risk numerous means have been devised of delivering the after-coming head with the maximum of rapidity and the minimum of danger to both mother and child. In many instances, however, even under the most skilful treatment the child is born asphyxiated and life cannot be restored, and the management of such a case is always a matter of grave anxiety to the medical practitioner. By a curious coincidence in THE LANCET of

Sept. 21st Dr. Edwin Smith writes (p. 815) advocating the use of a catheter passed into the child's mouth in those cases where there is danger of asphyxia, and in the same issue of THE LANCET Mr. G. W. Ord describes (p. 790) how 12 years ago he saved the life of an infant when the head was delayed in the vagina by passing a silver male catheter into the mouth and so enabling air to enter the lungs. Dr. Smith takes the precaution—a wise one at the present day—of apologising in advance to the gentleman who may write to say that he described the device many years ago. I am afraid, however, that this particular practitioner is far beyond the power of writing letters to the medical journals. The originator of this method of avoiding asphyxia to the child in cases of breech presentation would appear to have been Benjamin Pugh of Chelmsford who, in his Treatise on Midwifery published in 1754, p. 49, in discussing the treatment of such presentations, writes:—

When the Parts are well made, and the Child in proportion, happy the Case! it will come then any Way, the Arm being brought down, the Head only remains to be extracted, which must be done with as much Expedition as possible, as indeed the Arms ought to be; for consider when the Child has passed the Navel, the Circulation between it and the Mother is stopp'd from the Pressure of the umbilical Rope; you must then introduce the Fingers of your Left-hand into the Vagina under the Child's Breast, and put the first and second Fingers into the Child's Mouth pretty far, so far, however, that you are able to press down the Child's Tongue in such a Manner that by keeping your Hand hollow, and pressing it upon the Mother's Rectum the Air may have access to the Larynx, you will soon perceive the Thorax expand as the Air gets into the Lungs. Many Authors make very little Trouble in extracting the Head, but without a well formed Pelvis every Operator must know there is Difficulty, and great Danger of losing the Child by its Stay in the Passage; but by this Method of giving the Child Air, I have saved great Numbers of Children's Lives which otherwise must have died. And now you may rest yourself a little, which you have great Need of sometimes. If the Child does not breathe immediately upon Delivery, which sometimes it will not, especially if it has taken Air in the Womb; wipe its Mouth, and press your Mouth to the Child's, at the same time pinching the Nose with your Thumb and Finger to prevent the Air escaping; inflate the Lungs rubbing it before the Fire; by which Method I have saved many. Before I made use of this Method and pressing externally, to assist in Extracting the Head, I found many Children were lost in this Situation, for want of Air, which put me upon both Inventions, as likewise a third, which was a curve flattish Pipe, as likewise a flexible one, that I introduced into the Child's Mouth, as near to the Larynx as I could the other End external, which I found answer; but now as I find my Fingers will generally answer I seldom make use of it.

In the plates appended to this work is figured the tube (Fig. 1) which Pugh was in the habit of using. It is described as follows:—

The Air-Pipe as big as a Swan's Quill in the Inside, ten Inches long, is made of a small common Wire, turned very close (in the Manner Wire Springs are made) will turn any Way; and covered with thin soft Leather, one End is introduced up the Palm of the Hand, and between the Fingers that are in the Child's Mouth, as far as the Larynx, the other End External.

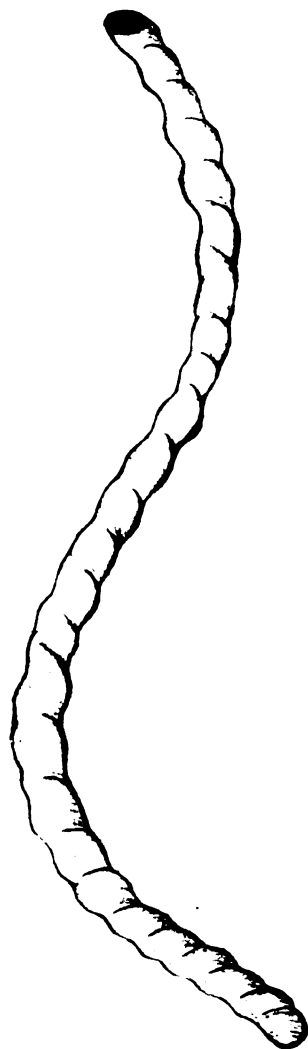
The next reference of importance to be found relating to this ingenious method is in a little book entitled "Essai sur les Accouchemens contre Nature ou Méthode Assurée de Délivrer les Femmes, par Pierre-Etienne Morlanne," published at Metz in the year 1802. In describing the method of making jaw traction in breech presentations the author says: "After having seized the chin the surgeon places one or two fingers in the mouth of the child, depresses the tongue, and facilitates by this procedure the introduction of air into the chest. This operation with which a frequent use in preternatural confinements has rendered me familiar, should take its place as a fundamental principle of the art which aims at preserving the life of the child. I have seen in labour rendered difficult by the size of the head or the smallness of the pelvis—I have seen, I say, the child live for more than half an hour by the admission of air into the bronchi, and ultimately survive the difficulties of its extraction when one has employed the proper means to revive it."

In 1829 Dr. Jacob Bigelow, at that time professor of materia medica at the University of Harvard, published a paper in the *American Journal of the Medical Sciences*<sup>1</sup> on the Means of Affording Respiration to Children in Reversed Presentation. He draws attention to the fact that not uncommonly while the practitioner is making efforts to extract the after-coming head there occurs a convulsive jerk or spring of the child which indicates that a state of extreme danger exists and that the time has come at which the child must breathe or will speedily die. He recommends that when the head is low down the accoucheur "should introduce the hand to which the face of the child looks till the middle fingers rest upon the mouth of the child."

<sup>1</sup> Vol. iv., p. 285.

The hand is then to be raised from the throat of the child, making the ends of the fingers a fulcrum and pushing the perineum backwards. The air will thus pass upwards as far as the chin of the child. The middle fingers are now to be separated about half an inch from one another, and thus a complete passage will be formed between them by which the air will reach the mouth of the child. If the child be in a healthy state it will immediately breathe and cry and the delivery of the head may be safely postponed until the natural pains recur. If from any degree of asphyxia the child does not immediately breathe it may often be made to do so by dashing cold water upon the body or by other stimulating processes. When the head is so

FIG. 1.



Pugh's tube, from the original engraving.

high in the pelvis as to be reached with difficulty a flat tube will be found useful, made of metal, of spiral wire covered with leather, or of elastic gum, and having its largest diameter about half an inch. Such a tube may be considered as a prolongation of the trachea, and is fully sufficient to sustain life by respiration for a considerable time." He considers Pugh's advice to depress the tongue as superfluous, since it is sufficient to make a passage for the air as far as the child's lips only. Five cases are recorded in which by the use of one or other of these methods the child was enabled to breathe with its head still in the vagina. In each of the cases the life of the child was saved, while in two of them the infant cried quite plainly before the delivery of the head was completed. Professor Bigelow

FIG. 2.



Joos's tube, from the original engraving.

was acquainted with Pugh's book, and he quotes his practice. As he points out, however, after 1754 this method seems to have been lost sight of, and no mention of it is to be found in the works of Smellie, Denman, Hamilton, and Burn, nor have I been able to find any allusion to it in Levret, Johnson, Rigby, Ryan, Blundell, Ramsbotham, or Meadows. In most of the text-books published about the middle of the last century after the publication of Bigelow's paper the practice is alluded to, as, for instance, in the treatises of Meigs, Tyler Smith, and Churchill.

Simpson in his paper on Turning as a Substitute for Craniotomy presented to his pupils in 1850, in discussing the mortality to the children and the means by which the effects of compression of the cord may be averted, alludes to the works of Pugh and Morlanne, and quotes two cases (Case 60, p. 135, and Case 62, p. 136) recorded by Dr. Lee in his "Clinical Midwifery" (second edition, published in 1848) in which by forcible retraction of the perineum the child was enabled to breathe in one case for 20 minutes and in the other case for nearly half an hour after the pulsation in the cords had entirely ceased. In both instances the children were born alive and they survived, and in one the perineum was uninjured.

Barnes, in his Lectures on Obstetric Operations,<sup>2</sup> states that he has kept a child alive for 10 minutes in a case of breech presentation by holding back the perineum and so enabling air to enter the chest.

In the *London Medical Gazette* of Oct. 22nd, 1847, p. 720, Dr. Joos of Schaffhausen described a very ingenious instrument by which he proposed to prevent compression of the cord and so avoid the danger of asphyxia in pelvic and other presentations. This device (Fig. 2) consists of a tube from four to eight inches in length and of a diameter sufficient to contain the umbilical cord. It has a slit equal to one-twelfth of its circumference along one side. The tube is made of caoutchouc or leather, with a series of steel rings three lines broad inserted into it at a distance of one line apart. By the insertion of a finger into the slit the tube is opened up to admit the cord into its interior, and as the steel rings are sufficiently strong to prevent its compression, by placing the tube, or if necessary two such tubes, inclosing the cord between the child's head and the pelvis all danger of interference with the placental circulation by pressure is avoided. "The application of the instrument," says Dr. Joos, "may take place during the act of birth by presentation of the breech or feet and in cases in which a fatal pressure upon the cord is to be feared." The use of such a tube or tubes would be practically impossible in the majority of cases and there is no evidence forthcoming that even its inventor ever put it to the test of actual employment.

Hardly any of the writers of modern text-books on obstetric medicine refer to Pugh's method of overcoming the danger from asphyxia when the birth of the after-coming head is delayed, and in this omission they no doubt exercise a wise discretion. The passage of a catheter or special tube into the child's mouth when the head is lying high up in the pelvic cavity is only likely to lead to a waste of valuable time, while if the head is sufficiently low down in the pelvis to admit of air reaching the mouth if the perineum be retracted its immediate extraction should be a matter of little difficulty. It is instructive to note that in three of Dr. Bigelow's cases the head was born spontaneously, while in one of them it was easily extracted by the use of forceps after an attempt to set up respiration by passing a tube into the child's mouth had failed.

The instances recorded by various observers show that in cases of extreme emergency it is possible to keep a child alive by the use of one or other of the methods described for a considerable length of time. At the present day, however, when our means of delivering the after-coming head either by combined shoulder and jaw traction, or, better still, by the application of forceps, are so certain it becomes a question whether it is not better practice to extract the head at once even at the risk of a bad tear of the perineum rather than to attempt to initiate the act of respiration while the head is still within the vagina. The warning of Barnes should not be forgotten. Speaking of Pugh's device he says: "I must warn you not to trust to these or similar plans, lest the golden opportunity be irretrievably lost. The real problem is to get the head out of the pelvis," and to this advice one may safely add the qualification, *as rapidly as possible*.

Wimpole-street, W.

<sup>2</sup> Third edition, 1876, p. 211.

THE TREATMENT OF HEMIPLEGIA.<sup>1</sup>

By LEONARD G. GUTHRIE, M.A., M.D. OXON.,  
F.R.C.P. LOND.,

PHYSICIAN TO THE HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S  
PARK; SENIOR PHYSICIAN TO THE PADDINGTON-GREEN  
CHILDREN'S HOSPITAL.

I HAVE chosen for the subject of this paper the treatment of hemiplegia because in my experience many patients suffering from this disease are not treated at all. Doubtless they receive plenty of iodide of potassium, strychnine, and other drugs, their natural wants are attended to, they are put in and out of bed, cleaned, clothed, and fed like babies, and on bright days they may be taken out in bath-chairs or they may be allowed to sit in the sun like Old Caspar "when his work was done"; but so far as their paralysis is concerned they are too often left to themselves. The blame for this neglect rests partly on the public. Paralysis to the public means incurability; a rooted conviction prevails that a person who has had one stroke of paralysis is bound to have another, and yet a third which will be infallibly fatal. Medical attendance is therefore discouraged as useless and the medical attendant soon receives a more or less polite intimation that his visits need not be continued and that he will be "sent for if wanted"—that is to say, should the patient have another stroke and appear at death's door. Neglect of hemiplegic patients may also be attributed to the pessimistic and cynical teaching that those who get well do so without treatment and those who do not get well derive no benefit from treatment. Neither statement is strictly true. Mild cases may never recover unless treated, and severe cases, unless treated, may go from bad to worse.

Before discussing methods of treatment it is necessary to describe the conditions with which we may have to deal and which we hope to combat.

In a severe case of hemiplegia of from six months' to twelve months' duration or longer the patient's arm and leg may be quite useless and immobile. He is unable to stand or walk. His joints are fixed and any attempt to move them causes extreme pain; his shoulder is usually adducted to his side, his elbow and wrist are flexed, his forearm is pronated, and his fingers and thumb are doubled into the palm of his hand. His hip and knee may also be flexed, his thigh adducted, his knee and foot inverted, and his heel drawn up. The muscles are all wasted and some are shortened and contracted, thus causing the characteristic pose of the limbs, which cannot be overcome, and his reflexes are exaggerated. This is the extreme and incurable state of helplessness at which the sufferer from hemiplegia may arrive. The immobility of the limbs is due (1) to articular adhesions; (2) to motor paralysis leading to muscular atrophy; and (3) to spasticity or spasmodic contraction of muscles leading to permanent shortening of the stronger ones. These conditions in an advanced stage are incurable, but I submit that systematic and intelligent treatment from the first would lessen the number of incurable patients and would alleviate the lot of those not cured.

The methods of treatment at our disposal are—(1) passive movements; (2) massage and electricity; (3) re-education of movements by passive and active exercises combined; and (4) mechano-therapeutics.

*Articular adhesions* frequently cause limitations of movements. They may occur in the elbow, the wrist, the hip, the knee, and the ankle-joints, but are most common and are formed earliest in the shoulder, rendering movements of the joint painful if not impossible. A limb which might have recovered is often useless owing to their presence. Some regard adhesions as trophic, others as rheumatic, in origin. In advanced cases changes indistinguishable from those of rheumatoid arthritis may be induced, especially in patients who already have signs of that disease. The nerves in the neighbourhood of the joints may be involved and may give rise to the painful symptoms of peripheral neuritis. Whatever be their cause, in most cases adhesions are preventable. Unfortunately, it happens too often that in early days of hemiplegia a dread is entertained lest any disturbance of the patient should cause further hæmorrhage or other mischief in the brain. So

he is left to cuddle and caress his paralysed arm to his heart's content. He usually hugs it to his side and flexes his elbow and forearm across his chest in the very position which it is desirable to avoid. This fear of moving the limbs is quite unfounded. Gentle passive movements of each joint should be practised many times a day from the very first; for adhesions begin to form very early in the first week or two, during which it is advisable to confine the patient to bed. When formed they are difficult to disperse, hence the importance of preventing their occurrence or dealing with them early. Neglected adhesions soon become permanent.

*Spasticity or early rigidity* is noticed on manipulation of the affected limbs or by the patient's voluntary movements of other parts. Any lesion affecting the cerebral motor tract may give rise to it. Some attribute it to "unantagonised cerebellar influence," others to irritation of the fibres of the tract by the lesion. In late stages it is doubtless due to descending sclerosis of the antero-lateral columns. The muscles chiefly and usually affected are the adductors of the shoulder, the flexors of the elbow, the pronators of the forearm, the flexors of the fingers and the thumb, and the adductors and the opponens muscles of the thumb. In the lower extremity the adductors (rarely the flexors) of the hip, the hamstrings, the plantar flexors, and invertors of the foot are specially involved. Spasticity or early rigidity leads to structural shortening of the muscles chiefly affected, and renders the characteristic pose of the limbs permanent. This condition of late rigidity is practically incurable. The early treatment of this condition is as important as is that for the prevention of articular adhesions. Almost from the first the limbs tend to assume the attitude which may afterwards become permanent. Therefore, even whilst the patient is confined to bed all faulty positions and any tendency to adopt a particular position should be corrected. Adduction of the shoulder may be prevented by placing a sandbag in the axilla. The elbow should be kept extended rather than flexed; the tendency to flexion is easily overcome in early stages. Advantage may be taken of the curious consolation which the patient derives from playing with his paralysed arm by instructing him to alter its position himself from time to time with his sound hand. Faulty positions of the lower extremity should be similarly treated. The limb should be rotated outwards and abducted and the foot dorsiflexed and everted in order to obviate the tendency to assume opposite positions. Spasm of the hip flexors is rare, but when it occurs it may be counteracted by placing a pillow beneath the buttocks. Contraction of the hamstrings should be treated by raising the heel. Sandbags may be used to ensure favourable position of the limbs. When the patient leaves his bed similar precautions should be taken against malposition. He should never be allowed to carry his arm in a sling, but he should keep it dependent as far as possible, only flexing it from time to time should oedema appear. He should not be allowed to sit with his knees and toes turned in, but should be told to correct these positions himself with his sound hand. The principles of treatment so far aim at prevention of fixation of joints and faulty positions of limbs.

*Muscular atrophy* usually occurs sooner or later in hemiplegic limbs. It is doubtless due to disuse, but it must be remembered that not only muscular but nervous tissues suffer from disuse. Mott<sup>2</sup> and others have shown that the neurons are dependent on stimuli from the periphery for their function and nutrition. Such stimuli are derived from normal movements and alterations in tension of the skin, the muscles, the tendons, the ligaments, &c. Now, the lower motor neurons commencing in the anterior cornual cells are not directly affected by a lesion in the cerebral motor tract, but they may be indirectly or functionally affected by the absence of normal stimuli. Muscular atrophy and paralysis are the prominent features of disease of the anterior cornual cells. Probably, therefore, even when a cerebral lesion has healed recovery from hemiplegia may not take place owing to a functional affection of the lower motor neurons produced by disuse of the limbs. Hence, if normal stimuli are absent, artificial stimuli must take their place. Passive movements, massage, and electricity are such artificial stimuli. By them we may hope to preserve the nutrition of muscles and neurons alike. If we can do so it is obvious that the patient will be better able than otherwise to make

<sup>1</sup> A paper read before the Plaistow and Canning Town Medical Society on Oct. 4th, 1901.

<sup>2</sup> Croonian Lectures on Degeneration of the Neuron, THE LANCET, June 23rd (p. 1779), and 30th (p. 1849), and July 7th (p. 1) and 14th (p. 80), 1900.

use of the gradual return of power expected in most cases of hemiplegia.

*Passive movements* aid as stimuli, as well as in the prevention of articular adhesions.

*Massage*.—Massage arrests atrophy, promotes muscular growth, prevents oedema, improves the circulation of blood and lymph, renders the joint supple, and probably has a direct action on nerves and nerve centres; but massage, unless employed with gentleness and intelligence, does more harm than good. It is useless to leave a masseur who has learnt the mysteries of *effleurage*, *pétrissage*, and *hachage* in six easy lessons to work his will on the patient. The crude methods of the ordinary shampooer are not applicable to the sufferer from hemiplegia. The man who flays and mauls and thumps his patients, who wrenches instead of coaxing his stiff joints, who tortures him by rubbing the short hairs on his limbs the wrong way, and who digs his horny thumbs below the sufferer's ribs and then remarks complacently, "That's your liver," and does it again in spite of protest, is out of place in the sick-room. Having secured the services of a masseur warranted not to madden the patient by his manipulations we have yet to teach him what to do. It has already been mentioned that spasticity tends to affect certain muscles more than others and that those most affected become contracted and overcome their weaker opponents. Therefore the latter must be strengthened in order that they may hold their own. The simple rule is to massage only the weaker muscles, and their weakness is estimated by the amount of contraction commencing or present in their opponents. The adductors of the shoulder, the flexors of the elbow, the pronators of the forearm, the flexors of the fingers and thumb, and the adductor and opponens muscles of the thumb, are usually, though not invariably, contracted, and should therefore be left alone. The method of massage for improving the tone of individual muscles is *pétrissage*, or "kneading"; *effleurage*, or "stroking," promotes general circulation in the limbs. Kounindjy\* recommends centrifugal rather than centripetal massage but gives no reason, nor do I know any, for departing from the usual method. Electricity, whether faradism or galvanism, is a useful adjunct to massage but cannot take its place. If faradism and galvanism have been discredited in the treatment of hemiplegia I believe it is because so-called "medical electricians" are sometimes over-anxious to give the patient his money's worth. The currents which they employ are often far too strong, their negative electrodes are too small, and they alarm and hurt the patient by sudden makes and breaks. Any current which causes pain or produces muscular contraction is too powerful and may do harm.

*Re-education of movements*.—So far we have considered the physical causes which impede recovery and the methods of averting adhesions, late rigidity, and muscular atrophy. It must be admitted that in severe cases treatment at best is only palliative. Complete recovery cannot be expected when a part of the cerebral motor tract is absolutely destroyed. Yet we can never tell until time has elapsed the amount of destruction which has occurred. The symptoms of an organic lesion are always widely in excess of its extent. So the prospects may not be so hopeless as they appear. Even in the worst cases a certain amount of improvement may be expected, and its degree will depend on the extent of the damage. We can usually estimate this in a few months' time by the amount of spasticity and atrophy which prevails. Generally speaking, the less the spasticity and wasting the better the prognosis. Motor paralysis is of less grave significance than spasticity.

Occasionally one meets with cases in which, although adhesions, spasticity, and atrophy are slight or even absent, no improvement is manifested. After many months, or even years, the patient remains as helpless as at first. The reason may be that the patient is unaware that any restoration has taken place. He does not try to use the powers which he has unconsciously regained. He is too depressed and disheartened, too apathetic and resigned to his misfortune, or too timid to attempt to help himself. Apart from such mental conditions, which of course need appropriate treatment, he seems literally to have forgotten how to execute voluntary movements. In re-educating him we are helped by knowledge of the natural order in which recovery occurs. Thus, the leg usually recovers before the arm, the hip and knee before the

ankle, the shoulder before the elbow, the elbow before the wrist, whilst the extensors of the fingers, and especially the abductors and extensors of the thumb, are the last to be restored. The rule is that the parts whose movements are most specialised and least associated with movements of the opposite limb are the last to regain power. This knowledge is most valuable, for if we can foretell to the patient that power will return in due order in each limb or joint, and he finds the prophecy true in one instance, he will gain confidence in its truth as regards the rest and will persevere in his attempts to anticipate progress. He is less apt to mourn over his useless fingers if able to rejoice over a serviceable leg. Therefore we endeavour to fix his attention on the parts which should be recovering rather than on those which are still obviously paralytic. He has to be content to sit up before he can stand, to stand before he can walk, and to move his shoulder before his elbow, his wrist, and his digits; but he will often be unable to regain any of those powers unless literally taught to do so. The method of teaching is to foresee the dawning approach of power and to elicit it by means of passive movements. It is useless merely to tell such a patient to elevate his arm at the shoulder. He will only sigh, "I cannot." But tell him to do so and at the same time do it for him, and he will gradually learn to raise it himself. At each attempt the operator does less and the patient does more. So the essence of re-education is in the use of passive and active movements combined.

This principle may be applied in the re-education and amplification of all movements. For instance, a patient has learnt to walk but complains that "one foot is always walking into the other and tripping him up." On examination we find that he always sits with his knees and toes turned in. He is unaware of the necessity of practising abduction, rotation outwards, and eversion of the limb, and he is quite unable to execute these movements until taught by passively working the thigh and the foot and encouraging him to make voluntary efforts to do so at the same time. Similarly, although he knows how greatly foot-drop interferes with his walking, he will not try to dorsiflex his foot unless persuaded. He must be taught to make the effort whilst sitting, helping himself meanwhile by putting on a strap attached to the fore part of his foot. Or, again, he has never learned to use his hip flexors. He circumducts his leg or drags it behind him and has difficulty in getting upstairs. We may teach him to flex his hip on the same principles. When some power has been regained it may be improved by making him stand holding the back of a chair and then directing him to place his affected foot on the rungs from the lowest upwards. Kounindjy uses miniature staircases for this purpose.

*Mechano-therapeutics*, such as weights and pulleys, elastic traction apparatus, &c., are only of use to increase powers already partially regained. The strength of muscles overcome beforehand by contraction of their opponents cannot be improved by increasing their labour.

*Disordered association*.—The normal *alternate* association of leg movements in walking is often impaired and perverted after hemiplegia. The patient may appear to try to move both legs forward at once. Directly he advances the sound limb the affected one becomes rigid and is dragged painfully behind. To lessen the difficulty he should be taught to advance the unsound leg before the sound, bringing the latter up to the level of the former after each step. He needs to be lightly supported on the paralysed side by an attendant, otherwise he will not rest on the affected leg for fear of falling. It is desirable to prevent a fall, of course, but the support which is given should be moral rather than physical. For this reason the help of an attendant is preferable to that of a stick or crutch. The patient, if able to use either implement, is apt to make it a substitute for his weakened leg instead of an adjuvant.

*Ataxy*.—Want of precision in movements often follows recovery of both limbs. Exercises on the Frenkel system for the treatment of locomotor ataxy are useful in such cases. Games such as draughts, halma, or solitaires may be recommended, or targets may be constructed on which the patients practise touching the bull's-eye and various circles with the forefinger. In all these exercises the patient "must not hesitate or he is lost." For ataxy of the lower extremity Frenkel's various apparatus may be used whilst the patient is lying in bed. He should also stand supported by the back of a chair and then, resting on his sound leg, place the foot of his weak one into wooden curtain-rings or chalk marks placed in various positions on the floor, touching each in

\* Archives de Neurologie, vol. x., No. 59.

turn as directed. The pain of neuritis may be relieved by smearing the limbs with equal parts of camphor and chloral hydrate, or glycerine and belladonna, and sometimes mild galvanism is of service.

#### SUMMARY.

1. Neglect and want of treatment aggravate severe, and retard the recovery of mild, cases.
2. The evils to be foreseen and guarded against are articular adhesions, late rigidity, and muscular atrophy.
3. Articular adhesions should be prevented by passive movements of each joint from the very first.
4. Faulty positions of the limbs should be constantly corrected or they will become chronic.
5. Contraction of muscles should be treated by endeavours to improve the nutrition of their weaker opponents.
6. Massage, passive movements, and to a less extent electricity, should be used with this object. These agents not only counteract muscular atrophy from disuse, but probably take the place of normal stimuli and invigorate the neurons.
7. The recovery of mild cases may be often hastened by re-education of movements. Want of re-education frequently prevents recovery.
8. Re-education consists in a combination of passive and active exercises.
9. Movements should be first encouraged in those parts which naturally tend to recover first.
10. Incoördination and general weakness of limbs which have yet regained power of movement should be treated by exercises and mechanical therapeutics.
11. It is important to find out what the patient can do and to make him do it.

In conclusion, this paper deals with the treatment of hemiplegia as a condition without reference to its cause, for whether the cause be hæmorrhage or occlusion of cerebral vessels by embolism or thrombosis is immaterial. The principles of treatment will be the same and need not interfere with other measures taken for the relief of the disease which gave rise to the hemiplegia.

Upper Berkeley-street, W.

## THE TREATMENT OF SYPHILIS, WITH SPECIAL REFERENCE TO THE BEST METHODS OF ADMINISTERING MERCURY.

By WINFIELD AYRES, M.D.,

GENITO-URINARY SURGEON, BELLEVUE HOSPITAL, O.D.P., NEW YORK;  
INSTRUCTOR IN GENITO-URINARY DISEASES IN NEW YORK UNIVERSITY AND BELLEVUE HOSPITAL MEDICAL COLLEGE;  
INSTRUCTOR IN GENITO-URINARY DISEASES IN THE NEW YORK POST-GRADUATE HOSPITAL, ETC.

THE use of mercury in the treatment of syphilis was begun over 400 years ago. For a time the inunctions and fumigations were used so thoroughly that the patient suffered more from the drug than from the disease, and, as a consequence, the school of anti-mercurialists was established. Later, as the uses and evils of mercury were better understood, more and more were converted to a belief in its efficacy until at the present day there are few physicians who do not use mercury in some form. The disease is so insidious and takes so long to eradicate that whatever preparation is selected to deal with it it must be one that is easily borne and will not cause any general disturbance. The method of treatment has long been, and still is, a subject of discussion, the majority claiming that the interrupted method is preferable, while the minority contend that the drug should be given constantly for a period of about three years. As a rule, those who advise the interrupted treatment give the medicine for life, thereby admitting that the disease is incurable. Those, on the other hand, who advocate the constant treatment assert their belief that the disease can be eradicated if the medicine is systematically taken for the prescribed period—namely, three years. It seems to me that this much, at all events, is certain—that there is no hope of eradicating the disease unless the full dose is given constantly for something like the period indicated. In practice the rule should be, first find the point of tolerance and then hold the

dosage just below that point. Now arises the question, How soon shall treatment begin? The answer to that question is, Just so soon as the diagnosis of syphilis can be made, whether eruption has appeared or not. The initial lesion of syphilis assumes one of three forms. It is either an ulcerated sclerotic nodule, an eroded sclerotic nodule, or a dry nodule. The diagnosis of chancre can be made safely on the two latter forms, but no man is capable of making a positive diagnosis of chancre on an ulcerative lesion, and in such cases it is better to wait for the secondaries to appear or until the lesion assumes the characteristics of either the dry or the eroded nodule. The next point to be considered is, Does enucleation of the chancre have any effect on the course of the disease? There have been cases reported where no eruption followed enucleation, but it seems to me that in such cases the diagnosis should be questioned. In the majority of cases undoubtedly the eruption follows just as if no enucleation had taken place, and therefore it would seem there is no ground for supposing that enucleation has the effect of aborting the disease.

Some authors urge as an objection to early treatment that if mercury be given before the secondaries appear one can never be certain of the case being syphilis, because the mercury either prevents the eruption from appearing or masks it so that diagnosis cannot be made. If, however, the above rule is followed in regard to the giving of medicine during the chancre stage no question of diagnosis can arise. The advantage of giving mercury during this primary stage is that it either prevents or materially diminishes the eruption, and as a consequence the patient is not disfigured either temporarily or for life, as otherwise he is in danger of being. The effect of the early administration of mercury, in other words, is always to modify the secondaries—that is, they are neither so severe nor so determined; and there is this further advantage that when they do appear the point of tolerance has been established and no time need be lost in determining the dosage.

In passing it may be observed that ulcerating lesions should be treated only locally. If the ulceration is considerable it should be cauterised by some agent that does not destroy the tissue deeply. Saturated solution of potassium permanganate has been of most service in my hands, while a 20 per cent. silver nitrate solution has also been found very efficacious, especially in shallow ulcers. Nitric acid should never be used on an ulcer which is under suspicion, as it will cause too deep a slough and resulting scar. About the best dressing to apply is a piece of cotton soaked in balsam of Peru.

Before leaving the question of diagnosis I may refer briefly to the Justin test, with which I have made very thorough experiments. My experience has been that in all cases of unquestionable syphilis this test responds beautifully, while in all cases of doubtful syphilis the results are invariably negative. Several of the latter cases have proved to be syphilis later. I had 19 cases of chancre tested by this method. All were followed by eruptions, no medicine being given in any of the cases until the eruption appeared. In five out of these cases the test showed a decrease of hæmoglobin, while there was no decrease in the remaining 14. Therefore, I am forced to the conclusion that even in the testing of chancres this method is not of very great service. Later tests are those made by the use of the microscope, the theory being that the existence of syphilis is shown by the presence of three or more crenated blood corpuscles in a particular fluid and by the fact that the blood corpuscles generally do not have a tendency to form rouleaux. This condition, however, occurs in many other cases of secondary anæmia, and therefore this test is of little value except to the expert microscopist.

If a positive diagnosis cannot be made from the appearance of the chancre the patient should be put in first-class condition by means of tonics and the regulation of his diet and habits, special attention being paid to the condition of his digestive organs. And here I may say parenthetically that even when it has been established that a patient has syphilis it is my custom to allow him the moderate use of stimulants if he has been accustomed to them, and this I continue to do all through the treatment of the disease. Tobacco should be barred so long as there are any eruptions in the mouth, but when the eruptions have disappeared the use of tobacco should be allowed, as the irritation it produces will cause the eruptions to reappear if the patient is not getting sufficient mercury, while no harm will result in the event of the dosage being adequate for the control of the disease. Generally

speaking, it is much better for a patient to remain about his business, provided he takes his medicine regularly, than it is for him to be shipped off to any of the springs. The exceptions to this rule are to be found in cases where the disease is so severe as to call for more radical treatment than can be given at home.

This brings us to the question of general treatment. There is practical agreement among the authorities that just as soon as the diagnosis of syphilis can be made the patient should be given some form of mercury, but there is wide diversity of opinion as to which form is best for the purpose, and each surgeon usually selects that from which he has obtained the most favourable results in his individual experience. Only in regard to one other point, besides the necessity of having recourse to the medicine, is there anything approaching a consensus of view, and that is that in order to exercise its anti-syphilitic influence the mercury must circulate in the blood in minutely divided particles, and the assumption is that when chemical combinations of mercury are administered they are broken up in the system into such particles and then absorbed into the circulation.

Of the drugs that are frequently used in the treatment of syphilis I regard blue ointment as of most value. After it I would place mercuriol, bichloride, protoiodide, tannate, blue mass, grey powder, biniodide, fumigations, inhalations, and for extreme cases hypodermic injections of mercury. The unguentum hydrargyri comes to us in the form of metallic mercury minutely subdivided, and it is absorbed directly into the blood in the way described. I do not think that the theory that the mercury is inhaled from inunction is well founded. An additional advantage possessed by blue ointment is that, not being given by the stomach, it does not cause any gastric or intestinal trouble. There is, however, a serious objection to this form of administering mercury, and it is this, that it is extremely nasty, and therefore very few patients can be induced to continue it for any length of time. The method of giving the inunction is as follows. The patient may lie on a table, or sit on a chair, leaning on the back. The rubbing should by preference be done by an attendant who ought to have on a pair of rubber gloves to protect himself. The sites selected for the rubbing should be the back and loins. When it is impossible for the patient to have a rubber he can apply the inunctions himself, taking care to select those parts of the body where the lymphatics are most freely distributed—namely, the inner sides of the arms, the axillary line of the chest, the inner sides of the thighs, and over the popliteal spaces. This gives eight areas that can be used for the inunction, and they should be used in rotation. If the patient has an attendant the dose in a northern climate should be about one drachm or even one and a half drachms. If the patient does the rubbing himself he should use from one and a half to two drachms, as no patient will rub the mercury in so thoroughly as an attendant. After the inunction the patient should put on his shirt or drawers and wear them through the night. In the morning he can take a hot bath and wash off the mercury. The amount of inunction should be governed by the patient, some being able to take much more than others, the same as internal medications. Whenever the teeth become the least bit sensitive the inunction must be stopped for two days and then resumed at a smaller dose and kept at the point just below tolerance.

In regard, next, to protoiodide, probably this medicine is used at the present day more than any other in the treatment of secondary syphilis. In some cases it controls the symptoms remarkably well, but in the majority of cases it is of very little use. Valuable time is often lost by starting a patient on this preparation of mercury, it being found later that some other form of the medicine will have to be given to control the disease. The chief objection to protoiodide is that in a large number of cases it causes intestinal disturbance, and not unfrequently gastric disturbance as well, while in others it produces what can only be described as a general breakdown. Just about the time when results are expected from the drug the patient may lose flesh rapidly or gastro-enteritis may suddenly develop, and in either case his medicine will have to be stopped and some other preparation of mercury given. It is customary in using protoiodide to start with one-fourth or one-fifth of a grain three times a day and increase the dose slowly until constitutional effects are produced, as shown by slight tenderness of the gums or until signs of improvement are manifested. It is sometimes necessary to give enormous doses of this drug before any improvement is noticed.

Tannate of mercury acts in about the same way as protoiodide, and it has been my experience that those cases that do well under one drug do well also under the other, and *vice versa*. With tannate of mercury it is customary to begin with one-half grain three times a day and to gradually increase the dosage in the same way as when using protoiodide.

Blue mass, if exhibited with a slight intestinal astringent like tannic acid, will control symptoms of syphilis very satisfactorily, but if given alone it is apt to cause intestinal and gastric disturbance. The usual dose is from one to three grains three times a day.

Grey powder is sometimes borne where other preparations of mercury cause disturbance, the dose being one grain gradually increased to the point of tolerance. It is a very mild preparation of mercury and is probably the best for treating children. The objection to this preparation is that unless perfectly fresh the metallic mercury separates from the chalk and gathering into larger globules settles at the bottom.

Bichloride is a very reliable preparation of mercury. It almost invariably controls the symptoms. It has, however, to be taken in solution and it frequently causes gastric and intestinal disturbance, though not to anything like the same extent as protoiodide. This preparation should not be given in the syrup of sarsaparilla compound because it forms a precipitate. It is better given in the tincture of gentian compound, or if iron is indicated it can be given in elixir gentianæ cum ferro.

Fumigations are of great benefit in cases of obstinate skin eruption. For this method of treatment probably calomel is the best and it can be given in 20-grain doses. Fumigations may be given every second, third, or fourth day. This treatment, however, is rather exhausting to the patient.

With regard to inhalations, lately there has been recommended the wearing of cotton or woollen pads soaked with mercury on the chest, the idea being that the mercury is inhaled by the patient. It is admitted, however, even by those who strongly recommend this treatment, that it is only of service in mild cases of syphilis.

As to iron, it is not well to give this in treating syphilis until the tolerance of the patient to mercury has been established, because if iron and mercury are given together at the outset an explosive salivation is liable to occur. Yet the symptoms of some patients which it is impossible to control by mercury alone will be found to come under control when iron is added.

With regard to hypodermic injection, in hypodermic injections of mercury the bichloride is the form of the drug which is most often used. Calomel is also frequently given. Probably as handy and trustworthy a preparation as one can use is the following: bichloride of mercury, one grain; glycerine, one drachm; and water, one drachm. This is a stable preparation and can be kept for several days or weeks. 10 minims of this will represent one-twelfth of a grain of bichloride of mercury. It is always the custom to give an injection directly into the muscles of the gluteal region. The technique is as follows. First clean the skin by soap and water and then by bichloride sponge. Draw into the syringe a few minims of 4 per cent. solution of cocaine. Drive the needle directly into the gluteal region as far as it will go. Introduce about four drops of cocaine. Then unscrew the barrel of the syringe. Leave a drop of the solution in the cap of the needle, the needle, of course, being left in the tissue. Throw out all the cocaine left in the barrel of the syringe and fill it with about 15 minims of the preparation given above. Then screw the barrel of the syringe on to the needle again, being careful that no bubble of air is admitted. Throw the solution into the tissue, using in the first injection 10 minims. Two days afterwards the patient should be given another injection of the same dose. If two days later he shows no improvement the dose may be gradually increased, giving 12, 14, or 16 minims, as the case requires. After the injection the syringe is withdrawn and the thumb is placed over the puncture, but the place is not rubbed in the least. If the technique has been carefully followed an abscess will never result. It has been my experience that patients do not like this form of treatment and that while they may return for one or two injections, after that they are likely to disappear. Yet in very severe cases there is no doubt but that the hypodermic method will control the symptoms much better than any other way of exhibiting the drug. After injections nodules and painful spots are often left in the gluteal region, sometimes persisting for several

years and being very disagreeable to the patient. Still, I believe with Lydston<sup>1</sup> that if hypodermic injections can be performed without the production of local injurious effects they represent the ideal treatment for syphilis. I have used mercuriol hypodermically in two cases. In one of these no trouble followed the first injection, but after the second injection a large abscess formed on the site. As I did not give the injections myself I do not know whether the technique was followed. In the other case no abscess resulted but the injection was fully as painful as those made with bichloride; and there is this drawback to the use of mercuriol hypodermically, that it has to be prepared fresh each time it is wanted for use. The results obtained by using mercuriol hypodermically as far as controlling the symptoms is concerned are very good. I have also used cypridol in two cases. Following the directions of the manufacturer I gave ten minims every second day in the gluteal region. There was no pain, but the disease was not controlled and excessive salivation followed, necessitating a change of medicine. Possibly further experiments with this drug may show better results.

I now come to the second part of my paper in which I propose to deal more in detail with the experience I have had with mercuriol given in tabloid form. My experiments with this drug, which were conducted at the Bellevue Hospital, New York city, extended over a period of eight and a half months, and during that time I treated 180 cases. Of those entered on my books 74 either did not return after the first visit or were too short a time under observation to be reported. In addition to these I have eliminated 11 others whose irregularity of attendance rendered the records of their cases of little or no use. This leaves the number of cases to be reported on 95. These were under observation for the following periods: over six months, 18; five months, 9; four months, 7; three months, 18; two months, 16; one month, 13; and less than one month, 14. The dosage, regulated either by the point of tolerance being reached or by the disease being brought under control, varied as follows: a quarter of a grain, 1; one half grain, 2; one grain, 18; one and a half grains, 2; two grains, 23; two and a half grains, 3; three grains, 21; four grains, 14; five grains, 8; and six grains, 3. In 64 of those 95 cases the disease was controlled as follows: in two weeks, 8; three weeks, 12; four weeks, 14; five weeks, 6; six weeks, 5; seven weeks, 2; two months, 8; ten weeks, 2; three months, 5; and four months, 1. The remainder I find are marked thus: decidedly improved, 17; improved, 8; no improvement in two weeks, 3; no improvement in four weeks, 1; and no improvement in three months, 2. In regard to the latter cases, it is of course necessary to bear in mind that these were all dispensary patients and it is uncertain whether they took their medicine regularly.

In making these trials my plan was to increase the medicine steadily from one grain until the symptoms were controlled or until there was a slight tendency on the part of the teeth and gums to become tender. If the symptoms were not controlled before the physiological effect of the mercury made itself felt I added small doses of potassium iodide, and in every case where the medicine was taken according to directions, with the exceptions noted above, I succeeded in controlling the symptoms. It will be seen that in some cases three and even four months elapsed before the disease could be said to be thoroughly under control. These, however, were cases in which the drug was given before the eruption appeared, and the patient was not pronounced free of his symptoms until the chancre as well as other manifestations had disappeared, and, as is generally known, a chancre frequently persists for the length of time referred to.

In 67 out of the 95 cases which I have tabulated no other medicine than mercuriol was given. In 15 out of the remaining 28 the addition of iodide of potassium was found to be sufficient to control the disease, while in six others the addition of an iron tonic sufficed for this purpose.

Out of all the cases of which I have examined the records only one suffered from gastric irritation, 11 suffered from diarrhoea, and three lost in weight. The one patient who suffered from gastric irritation could not continue taking the medicine and a change was made. The 11 who suffered from diarrhoea, were relieved by small doses of bismuth subnitrate, continuing their medicine. After a time the bismuth was stopped, the patient continuing on his medicine

with no disagreeable results. One other patient was changed from mercuriol to unguentum hydrargyri because the mercuriol did not control his symptoms even with the addition of potassium iodide. In those cases that lost flesh the dose was decreased and the patient continued on the medicine with no disagreeable results. It may therefore be said that only one case out of the whole number had to be taken off mercuriol. Of all the patients treated it will be noted that there were only two who could not take a grain of mercuriol, the average dose in the other cases being about two grains three times a day. Having used the drug now for about 14 months I recommend that a patient be started on one grain three times a day. On the fourth day he should be given an additional grain, and four days later another grain, the increase being continued at this rate every fourth day until there is slight salivation or slight looseness of the bowels or there begins to be some improvement in the patient. If diarrhoea occurs the patient should be given for a time about 10 grains of bismuth subnitrate three times a day or sufficient doses to control the diarrhoea, the medicine being at the same time continued and possibly increased. After a time it will probably be found that the bismuth can be stopped. Mercuriol, like all other preparations of mercury, will not always control the secondaries, and in such cases potassium iodide should be added, beginning with five grains a day. Probably in the course of a month or so it will be found that the iodide can be dropped and the patient continued on the mercuriol. And here I would emphasise the fact that mercuriol should always be given in pill form—never in solution because of its instability.

It is not necessary that I should report all the cases individually, but I may be allowed to refer to a few of the more remarkable among them and to some of those in which other medicines had failed to control the disease. The following speak for themselves and in my opinion show a very satisfactory record for the drug.

Case 1 had been taking bichloride for one month with very little improvement. Under mercuriol, three grains maximum dosage, the symptoms were under control in five weeks.

Case 2 had been under biniodide of mercury (one-sixteenth of a grain) and potassium iodide (five grains), which caused iodism. His symptoms were controlled in one month under half a grain of mercuriol.

In Case 3 unguentum hydrargyri had failed to control the disease. The patient was put on mercuriol and the dosage pushed up to six grains three times a day. The disease was thoroughly under control in seven weeks.

Case 4 had been on three-eighths of a grain of biniodide of mercury and 20 grains of potassium iodide for two months. The medicine caused nausea and vomiting. Having been put on mercuriol and the dosage gradually increased to five grains three times a day the symptoms were controlled in three weeks.

Case 5 had been taking hydrargyrum bichloride (one-twelfth of a grain) three times a day, under which an eruption on his face had faded, but the eruption on his body still persisted. His symptoms disappeared in two weeks under a maximum dose of three grains of mercuriol three times a day.

Case 6 had been on bichloride of mercury (three-sixteenths of a grain) for three months, in spite of which he had palmar syphilide of an eczematous variety. All appearances of the disease disappeared after he had been one month on mercuriol, his maximum dose being three grains three times a day.

Case 7 had been taking one-quarter of a grain of mercuriol and 15 grains of potassium iodide, with the result that the eruption had decidedly improved, though not to the extent that it should have done. There were thickened red patches on the face, covered with scaly eruptions. The symptoms almost entirely disappeared within three weeks under a maximum dosage of five grains of mercuriol three times a day and 15 grains of potassium iodide.

Case 8 had been treated at the New York City Hospital with inunctions of mercury, under which the eruptions disappeared, but the pains in the bones still persisted. He was relieved in three weeks under a maximum dosage of four grains of mercuriol three times a day.

Case 9 had been taking other forms of mercury for six months. The form which had done him most good was bichloride. Yet one-fifth of a grain did not entirely control the disease. He had been taking that for two months when he was placed on mercuriol. The dosage in his case was

<sup>1</sup> The Treatment of Syphilis, by G. Frank Lydston, Chicago, Professor of Genito-Urinary Surgery, Medical Department, Illinois State University. The Medical Standard, February, 1901.

pushed up to six grains three times a day, and at the end of seven weeks all his symptoms had disappeared.

Case 10 had been taking medicine off and on for two years, but his symptoms never disappeared entirely. After being two weeks on mercuriol (two grains three times a day) with the addition of potassium iodide, all symptoms had disappeared.

I use the drug in my private practice to the exclusion of all others, and my experience is that I get better results in the treatment of my private patients than I do in that of the patients who come to the dispensary. This may be due to the fact that the patients are better nourished and that their stomachs have not been subjected to such severe treatment by the use of alcohol. Possibly, also, it is in some measure due to the fact that they take their medicine more regularly, besides being more careful to follow out the general regimen. I have now under treatment 42 private patients, and a noteworthy circumstance is that in only one of the number has it been necessary to add potassium iodide to control the symptoms. One of these patients had been treated at Hot Springs in 1898. For six months thereafter he saw no signs of the disease; but then, having indulged in a protracted spree, the eruption showed up again, and for the last two years he had been taking all sorts of medicines in the vain effort to get rid of the disease. When he came to me I put him on mercuriol, the maximum dose being three grains three times a day, and at the same time gave him 15 grains of sodium iodide, under which treatment the disease was absolutely controlled in six weeks. Another when he came to me had an immense chancre of the chin, syphilitic angina, macular eruption on the body, and mucous patches on the lip and scrotum. He had been taking hydrargyrum protoiodide for four weeks but was steadily getting worse. I found that the highest dose of mercuriol he could stand was two grains three times a day and that this was not strong enough to control the disease. I therefore changed the treatment to inunction of mercury. Five days later he came back with double iritis and he was given a hypodermic injection of bichloride of mercury. I have not seen him since. As a rule, I find in private practice, as in dispensary practice, that a dose of two or three grains three times a day is the most that patients can stand or require.

In conclusion, I may remark that the treatment of syphilis may or may not be revolutionised by the discovery about which we are now hearing so much, of the coccus which causes the disease; but it appears to me that the probabilities are that, for a considerable time to come at all events, mercury will continue to maintain the position it has held for 400 years as practically the specific for syphilis. Under these circumstances it is of the highest possible consequence that we should ascertain the best method of administering the medicine, and I have found no form so far in which it can be given with such good results as mercuriol.

New York.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### SEQUELA TO A CASE OF RADICAL CURE OF HERNIA.

BY WILLIAM DICK, M.B., F.R.C.S. EDIN.,

MAJOR R.A.M.C., ASSISTANT PROFESSOR OF MILITARY SURGERY, ARMY MEDICAL SCHOOL, NETLEY.

THE following case, I think, is interesting.

A private was operated on at Pretoria on Jan. 28th, 1901, for left inguinal hernia. About ten days afterwards a swelling began to appear in the left side of his abdomen, primary union having taken place in the operation wound; this gradually got larger and he was invalided home, arriving at Netley on May 18th. On examination after arrival there was seen the incision of the operation perfectly healed, and there was to be felt and seen a tumour of about the size of two closed fists, filling the whole of the left side of the abdomen, very hard and with no sense of fluctuation. The man's general condition was good; there was no cachexia or rise of temperature. The diagnosis was that of some deep-seated

inflammatory condition, but still it was thought that it might possibly be a sarcoma. On May 31st an incision was made over the tumour and the muscular wall of the abdomen was cut through; no peritoneum could be recognised. An aspirating needle was then put into the tumour and pushed deeply, when a little pus was withdrawn. The tumour was then cut into; it was very hard, and the relations of abdominal contents were not made out; when the incision had gone to the depth of about three inches a small cavity was found with a little fluid in it. This being explored by the finger a foreign body was felt which was readily extracted by forceps. On examination this was seen to be eight silk ligatures interlocked, such as might be used for ligaturing off the omentum in sections, which no doubt was the case; they were covered with a caseating, crumbling material. A drainage-tube was put in and was retained for 48 hours and then withdrawn. The wound healed slowly with very little discharge. The mass of thickening gradually disappeared, there never being a rise of temperature during the healing process. The man went out perfectly fit, exactly three months after the operation, no trace of the tumour being left.

Netley.

#### A CASE OF TETANUS; USE OF ANTI-TETANIC SERUM; DEATH.

BY T. GRAHAM SCOTT, M.R.C.S. ENG., L.R.C.P. LOND.

A WOMAN, aged 21 years, was first seen by me on Sept. 25th, 1901. Six days previously, on Sept. 19th, a nail had penetrated the right foot just below the ball of the little toe, passing through the sole of the boot and the stocking. After the nail was withdrawn the wound closed and gave her very little trouble for the next three days. On the fourth day it was painful enough for her to keep her foot raised, and in the course of the two days following a small red swelling appeared on the dorsum of the foot above the metatarso-phalangeal joint. On the fifth day after the accident she had aching pains in her back and a stiff neck, and when seen on the sixth day she had well-marked trismus, tonic spasms of the muscles of the neck and back, and occasional slight clonic spasms. The temperature was normal and she took liquid food without much difficulty. Later in the day, at about 6.30 P.M., 10 cubic centimetres of antitoxin from the Institut Pasteur de Paris were injected into the skin of the abdomen, the clonic spasms having by this time become much more severe. At 9 P.M. chloroform was administered and a large area of skin and subcutaneous tissue was removed to a depth slightly greater than that of the original puncture of the nail, both the nail wound and the swelling on the dorsum being taken away. She rallied well from the operation, but as the effect of the chloroform passed off the spasms, both clonic and tonic, returned with much severity. Another 10 cubic centimetres of antitoxin had been injected during the anaesthesia and half a grain of morphia was now given in addition. During the night it was necessary to keep up the administration of chloroform at short intervals (a Junker's inhaler being employed), and towards morning 10 cubic centimetres of antitoxin were again injected, as well as half a grain of morphia. At about 9 A.M. there was considerably less spasm in the muscles of the lower jaw, but elsewhere the spasm had increased, the temperature had risen to 104° F., and the patient already showed considerable signs of exhaustion which increased as the day went on and she died at about 3 P.M. She became much cyanosed towards the end, when brandy was injected and inhalation of oxygen used, but without success.

I must gratefully acknowledge the invaluable help I received from Dr. W. G. Stone and Dr. W. Thornely during the case.

Denmark Hill, S.E.

DEVON AND CORNWALL EAR AND THROAT HOSPITAL, PLYMOUTH.—The fourteenth annual meeting of the supporters of this institution was held on Oct. 4th. The medical report showed that 904 cases had been treated, against 922 in the preceding year. 150 operations had been performed. The financial statement showed a favourable balance of £20. The old hospital in Princess-square was vacated in October, 1900, when the new building in North-street was opened. The committee state that this change has been most beneficial, the old hospital being too small.

## A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORCAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

### ST. GEORGE'S HOSPITAL.

#### A CASE OF ACUTE HÆMORRHAGIC PANCREATITIS.

(Under the care of Mr. H. W. ALLINGHAM.)

WE publish below two examples of an exceedingly rare disease, acute pancreatitis. One case occurred in St. George's Hospital, London, and the other in the Scarborough Hospital. In each of them the patient was a man who was seized suddenly with a very severe pain in the abdomen and with vomiting; the pain and vomiting continued. In each case a laparotomy was performed—in the former because it was thought that there was intestinal obstruction, while in the latter the true diagnosis was suggested, but there was a suspicion of a perforation. Both patients died, one within 48 hours and the other within 20 hours of the onset of the illness. Such is the typical history of an attack of acute pancreatitis. A sudden and most acute attack of pain in the abdomen accompanied by persistent vomiting arises without apparent cause in a patient, generally a man, who has hitherto been in good health, though in a few cases a history may be obtained of a previous slighter attack. The symptoms simulate intestinal obstruction or a perforative peritonitis, and in consequence in no small number of these cases an abdominal section has been performed. In the vast majority of cases a rapidly fatal result ensues. With our present knowledge it is probably not always possible to diagnose acute pancreatitis, but the great intensity of the symptoms is very suggestive. As to its etiology there are two views now current. One ascribes it to the entrance of bile into the pancreas in consequence of a blocking of the common opening into the duodenum. This view has been chiefly advocated by Halsted and is mainly supported by some experiments on dogs. It is by no means improbable and may account for some of the cases, but there is also much support for the other theory that has been advanced, which ascribes the acute inflammation of the pancreas to the introduction of micro-organisms from the duodenum. In several cases microbes, especially the bacillus coli communis, have been found in abundance in the diseased tissues, and even when allowance has been made for the ease with which bacteria from the bowels invade the neighbouring tissues after death it appears probable that these micro-organisms have a causal connexion with the pancreatic inflammation. For the notes of the following case we are indebted to Mr. Charles R. Keyser, surgical registrar.

A man, aged 26 years, was admitted into St. George's Hospital on Sept. 9th, under the care of Mr. H. W. Allingham. The history was as follows. On Sept. 8th he was seized with a sudden and severe attack of vomiting, followed almost immediately by excruciating pain in the abdomen, chiefly on the left side, which had continued until admission. The vomiting had also persisted and was almost constant. The bowels were absolutely constipated, neither flatus nor faeces having been passed; there was also pain on micturition. The bowels were opened for the last time on Sept. 6th. The patient stated that one year previously he had suffered from a similar though milder attack. The temperature was 98.6° F. and the pulse was 120, and he looked very ill. There was no cyanosis of the face or of the abdominal wall. The abdomen was slightly distended, chiefly around the umbilicus, was quite soft, and moved slightly on respiration in a quivering sort of way. Pain was present on respiration and on palpation, especially on the left side of the umbilicus, where some resistance was felt. There was no tenderness in the right iliac region and there was no jaundice. A diagnosis of acute intestinal obstruction was made and immediate operation advised.

Gas and ether, and subsequently chloroform, having been

given, Mr. Allingham opened the abdomen in the middle line below the umbilicus. On opening the peritoneum some blood-stained fluid escaped, but no other abnormal condition could be felt. There was no peritonitis and the intestines were but slightly distended. The skin incision was enlarged upwards and the intestines were examined from the jejunum to the rectum; there was no obstruction. Acute hæmorrhagic pancreatitis was immediately thought of, but the patient was not in a condition to stand any prolongation of the operation; before closing the abdomen it was noticed that the omentum was much redder than normal. On the next day the patient was distinctly better, the pain being less and the vomiting having stopped, but the pulse was 156 and the temperature was 97.8°. He complained of thirst and was unable to pass his urine. The abdomen was slightly distended and did not move on respiration; the bowels had not acted nor had any flatus been passed in spite of enemata and the passage of a rectal tube, &c. It was obvious, therefore, that the improvement, if any, in his condition was only in relation to subjective symptoms. He gradually became worse and died early the next morning.

*Necropsy.*—Dr. R. S. Trevor, assistant curator of the museum, who made the post-mortem examination, thus describes the condition found after death. There were 10 ounces of blood-stained fluid in each pleural cavity. Both lungs were sodden with blood and serous fluid and there was much frothy mucus in the tubes. The pericardium was healthy. There was a small amount of blood-stained fluid in the peritoneal cavity and there were a few clots in the pelvis. There was no obstruction or strangulation of the intestines. In the neighbourhood of the pancreas the fat around and in the mesentery was very blood-stained. The pancreas was much enlarged and there were a few hæmorrhages in the liver. The gall-bladder contained no stones and the bile was very fluid and escaped freely from the papilla duodenalis. The pancreas was increased in thickness to nearly four times its usual size; this increase mainly affected the body. The surrounding fat was deeply blood-stained and in places was softened into red masses of a jelly-like consistency with a very offensive odour. There was much matting together of the parts, the pancreas being firmly adherent to the stomach as well as to the spleen and left kidney by a mass of tissue much infiltrated with blood. There were numerous areas of fat necrosis in the vicinity of the pancreas as well as in the omental fat. On cutting into the pancreas the gland substance was seen to be much altered, more particularly in the body of the organ; in the head and tail lobulation was still present. The tail on section was uniformly red in colour; the head looked nearly normal but there were a few darker areas to be seen. In the body the normal lobulation was absent and the gland substance was here of a greyish-black colour with irregularly scattered islands of a yellowish tint. It was softened and pulpy; the duct of Santorini opened into the duodenum by a separate papilla situated just above the biliary papilla. There was no calculus in the ampulla of Vater, but on squeezing the head of the pancreas white cheesy material escaped from the biliary papilla and the papilla for Santorini's duct. The splenic vein was dilated and as it crossed the tail of the pancreas there was adherent ante-mortem clot in it, but the lumen was not completely occluded by clot. Dr. H. R. Spitta, assistant bacteriologist to the hospital, reported that cultures taken from the substance of the most affected area of the pancreas grew typical bacillus coli communis.

*Remarks by Mr. KEYSER.*—Acute hæmorrhagic pancreatitis is comparatively so rare a disease and simulates intestinal obstruction so closely that every case ought to be recorded, so that by paying attention to the symptoms and course of the malady it may be possible in the future to differentiate the two conditions. A good many cases have already been reported, but the diagnosis has hardly ever been made with certainty before operation or death, which last is unfortunately the usual result of the disease. Halsted<sup>1</sup> has reported a case and lays especial stress on two symptoms:—viz., excruciating pain in the abdomen, exceeding that produced by any other disease, and cyanosis, both of the face and of the abdominal wall, so that an imprint of the fingers can readily be obtained on pressure. Only the former of these two indications was present in the case described above. The probable cause of the disease is as Halsted and Opie suggest—retrojection of bile into the pancreas produced by the impaction of a very small calculus in the ampulla of

<sup>1</sup> Johns Hopkins Hospital Bulletin, 1901, Nos. 121, 122, and 123.

Vater. As is well known, the common bile-duct usually joins the pancreatic duct (duct of Wirsung) a short distance from the duodenum, and the two channels form a slightly dilated ampulla before opening on the surface of the second portion of the duodenum. This orifice, Hyrtl<sup>2</sup> states, is narrower than the lumen of the gall-duct at any point, or is at least less distensible, so that gall-stones often remain impacted at this point.

The conditions necessary for the production of acute hæmorrhagic pancreatitis by a calculus are set forth by Halsted as follows. 1. In order that bile may be retrojected into the pancreatic duct the stone must be (a) too small to occlude the pancreatic duct or to interfere with the force of the jet and at the same time (b) too large to pass the ampulla. 2. One calculus would be more likely to cause the pancreatitis than several, for other stones in the duct, unless very small, would weaken the force of the bile-spurt which drives the ball-valve against the papillary orifice. 3. The gall-bladder must be normal or nearly so—not thickened, shrunken, or weakened by inflammation. Thus a small calculus in the ampulla of Vater converts the two ducts into a continuous channel, while a large stone might simultaneously obstruct the duodenal orifice of the diverticulum and the orifices of the ducts which enter it, thus damming back bile and pancreatic juice upon their respective glands. Opie, who performed the necropsy on Halsted's case, made the following experiments on dogs: in five instances the duodenum was opened and the duct was injected with bile, varying from 2.5 to five cubic centimetres. In two other cases the duct was opened, injected with bile, and ligated. In all hæmorrhagic pancreatitis and fat necrosis were produced and verified by examination post mortem. If the theory set forth above is correct, and it certainly seems probable from Opie's experiments, the obvious treatment is to cut down on the duodenum and to remove the calculus from the ampulla of Vater. In the case I have described no calculus was found, but it must always be so exceedingly small that unless special precautions are taken it may very readily be overlooked or washed away. I am indebted to Mr. Allingham for permission to record the case.

### SCARBOROUGH HOSPITAL.

#### A CASE OF ACUTE HÆMORRHAGIC PANCREATITIS.

(Under the care of Dr. G. B. HUNT.)

For the notes of the case we are indebted to Dr. C. H. Brodribb.

A man, aged 51 years, had been quite well until the morning of August 15th, when shortly after eating his breakfast he went to his work feeling "unwell"; soon he became worse, with severe abdominal pain and vomiting, and was taken home. A medical man was sent for, who saw him for the first time at 3 P.M. and again at 8 P.M., when finding that the vomiting was more frequent, that the patient was becoming collapsed, and that there was some slight dulness in the left flank he asked another practitioner to see him. A suggestion of perforated duodenal ulcer was made and the man was advised to go into hospital. His bowels had been opened during the afternoon. The previous history was good, the patient never having had any illness that he knew of.

The patient was admitted into the Scarborough Hospital about 10 P.M. The temperature was 96° F., with a clammy skin and small, feeble, regular pulse of 88. He was quite conscious; indeed, he was very bright mentally considering his collapsed condition. He was vomiting ill-smelling bile-stained fluid and complaining of pain in his abdomen, chiefly in the umbilical region. Examination of the abdomen showed it to move well with respiration and to be regular in contour. There was but little tenderness and no rigidity, tumour, or enlargement of any organ could be made out. Percussion showed dulness in both flanks which was moveable with position. There was no tympanites or displacement of liver dulness. A catheter passed before admission drew off normal urine. He was watched for some 50 minutes, when the dulness in the flanks becoming obviously increased and his pulse smaller—at 95—Dr. Brodribb telephoned his condition to Dr. Hunt who, after seeing him, suggested an acute pancreatitis.

An operation was at once performed, the abdomen being opened in the middle line from the ensiform cartilage to the

umbilicus. A very large quantity of deeply brown-stained fluid at once escaped. The omentum was examined and was found to show particles of necrosed fat all over it; also the appendices epiploicæ were found to be necrosed. A large hard mass could be felt in the region of the pancreas. The stomach, duodenum, and other organs were apparently normal. The patient's condition being bad the abdomen was rapidly washed out with hot normal saline solution and sewn up. He was put back to bed very collapsed and lived about three hours.

*Necropsy.*—The post-mortem examination was confined to the abdomen. The fat throughout the abdomen showed necrosis in patches, also small patches were found on the parietal peritoneum. These patches varied in size from that of a pin's head to that of a thumbnail and were firm and of a glistening, dark greyish colour. The pancreas was much enlarged, the head being as much as two and half inches thick and dark red from the extravasated blood. The head was the part chiefly affected, the process becoming less severe towards the tail which at the tip was of its natural colour. There was no peritonitis. The spleen, liver, duodenum, and other organs seemed to be normal.

*Remarks by Dr. BRODRIBB.*—The extreme rapidity of the onset and collapse, the rapid increase of dulness in the flanks with the absence of tympanites, signs of peritonitis, or localising symptoms seemed to me to be inconsistent with the diagnosis of any one of the more common acute abdominal conditions calling for laparotomy, while on opening the abdomen the condition of the omentum at once pointed to pancreatic disease, which was confirmed by feeling the swollen pancreas. The great quantity of brown-stained fluid effused was very striking. I find in some cases previously recorded in THE LANCET that the colour of the fluid is said to be due to bile. I thought when I saw it that it was due to blood in which the pigment was changed to methæmoglobin, but unfortunately I was unable to test it. The pancreas and omentum were preserved by the formalin and glycerine method, which, it is interesting to note, turned all the patches of fat necrosis coal black. I have to thank Dr. Hunt for his kind permission to publish the case.

## Medical Societies.

### MEDICAL SOCIETY OF LONDON.

#### General Meeting.—Presidential Address.

A MEETING of this society was held on Oct. 14th, the chair being occupied at first by Mr. J. H. MORGAN and subsequently by Dr. W. H. ALLCHIN, the outgoing and incoming presidents respectively.

At the general meeting of the society which immediately preceded the ordinary meeting the Treasurer's report and balance-sheet were presented and adopted.—A vote of thanks to the Treasurer, to the retiring President, and to the Secretaries was proposed, and Mr. J. H. MORGAN and the retiring Secretary, Mr. F. C. WALLIS, replied.

The incoming President, Dr. W. H. ALLCHIN, then took the chair, and after some preliminary remarks on the past and future work of the society, read the Presidential Address on the Responsibility of the Organism in Disease. He said that among the widest spread inclinations of the human mind, however uncultivated or unlearned, was the desire to ascertain the cause of such phenomena as came under observation. That this was the case in respect to disease, so far as the laity were concerned, was well known to most of them, and their patients were generally fully satisfied by ascribing the malady to "a chill" or in finding some ancestor supposed to have been similarly affected. This subject was chosen, for there were indications that in the far-reaching and all-important extension of their knowledge by the discovery of the part played by microbes in the production of morbid states the personal factor was running the risk of being somewhat lost sight of. The President then dealt with the present conception of the nature of life, and he pointed out how the earliest recorded Hippocratic teaching was strangely similar to that of the present day. In considering the environment he said that although the main purpose of his remarks dealt with the share taken by the individual in the causation and manifestation of disease, yet it was necessary to say a few

<sup>2</sup> Handbuch der Topographischen Anatomie, Vienna, 1882.

words upon the external conditions to which every living being was subject. For the present purpose the environment factors might be grouped as follows. 1. Violent contact, represented by blows, injuries, and laceration of internal structures by foreign bodies, such as calculi and the like. 2. Another group of external conditions was represented by such natural agents as heat, light, electricity, and as barometric pressure and gravity, and such subsidiary conditions as relative humidity or dryness of the atmosphere. 3. The third set of conditions were those which produced their effects in virtue of the chemical changes which they set up, and these included modifications of the ingesta and perversion of the alterations which they might undergo in the process of digestion and absorption—in fact the whole class of substances denominated poisons. As causes of disease these bodies were well known, and the recent development of bacteriology and a knowledge of the toxins elaborated by micro-organisms had widely extended their acquaintance with the agents of this group. Very striking as showing the variable composition and constitution of bioplasm were the effects of poisons, some of which were quite innocuous to some cells whilst violently toxic to others. In attempting to comprehend, therefore, the effects of external agencies, however simple or however complicated they might be, they had also to reckon with the responsive capacity of the living organism. How was it, for instance, that the exposure to cold and wet would in several persons under similar circumstances bring about very different forms of disease? Whilst one developed acute nephritis another was attacked with acute pneumonia; another had a rheumatic attack, and the fourth might not suffer at all. Great and important as was the discovery of the microbic cause of tuberculosis it would be long before those who had had any extensive experience of the ravages of that disease would admit that the bacillus tuberculosis was the only thing to be kept in view either in the causation, the prevention, or the treatment of the malady; and at the present day, with the vast impetus that had been given to the investigation of external conditions by the discovery of the bacterial origin of many diseases, there was a fear that the pendulum would swing too far in that direction with the result that too little attention would be paid to the individual and the share he took in the origination of the disease, or what was more important the part he should be made to play whether in the prevention of disease or in the treatment of it when existent. If now they turned to consider what bodily states were to be regarded as heritable they would find that the number was very considerably less than was formerly supposed and that the transmissibility even in those cases which were accepted was not so potent as was thought. In other words, it was less the disease itself than a predisposition or tendency towards it, often requiring for the development of the malady a suitable conjunction of external conditions, in the absence of which the individual escaped, though this could not always be so, for the tendency might be so strong as to assert itself in spite of the most favourable environment. Prominent among those conditions which tended to recur in successive generations were longevity and the reverse. States which insensibly departed from the healthy type, reaching to a degree in which the well-being was interfered with, were represented by an undue formation of fat, obesity, or an exceptional leanness, and such states were notoriously prone to characterise the members of families over many generations. A third group comprised such essentially nutritive disturbances as gout and diabetes. Possibly even the more marked illustrations of diseases appearing in the offspring similar to those from which the parents suffered were to be found among nervous maladies. As further illustrating the responsibility of the organism itself in the occurrence and manifestation of disease might be mentioned the undoubted influences exerted by age and sex. It was much to be desired that that society should prosecute some collective inquiry into the incidence of disease in successive generations. But in endeavouring to form some estimate of the share taken by the individual in the determination and manifestation of disease they were dealing with a subject that was essentially practical in all its bearings, however speculative might be the basis which subtended the application. The correct estimation of the value of the facts ascertained when inquiring into the family history and life-history of patients depended upon some knowledge of the workings of the organism in response to external stimuli, and of such inherent qualities and capabilities as the patient might possess. Whilst it might seem but little toward the

framing of a diagnosis in the use of that term which was restricted to the mere naming of the disease, in a wider sense of comprehending the real nature of the case it was all important, and underlying as it did prognosis, the estimate of the individual resistance to the disease and furnishing therein the only rational plan of treatment, its study could not be too sedulously cultivated. He would claim, therefore, that he had not, after all, wandered far afield from their legitimate occupation and whilst *dulce est desipere in loco* he ventured to hope that his dissipation in generalities had not been out of place.

A vote of thanks, proposed by Dr. MITCHELL BRUCE and seconded by Mr. EDMUND OWEN, was accorded to the President for his address.

## PATHOLOGICAL SOCIETY OF LONDON.

*Sylvian Aneurysm.—Hæmorrhagic Myositis in Enteric Fever.—Pleuro-Esophageal Fistula.—Imperforate Pharynx.—General Dilatation of the Aorta with Dissecting and Sacculated Aneurysms.—Hydatid of the Gall-bladder.—Exhibition of Specimens.*

A MEETING of this society was held on Oct. 15th, Mr. W. WATSON CHEYNE, the President, being in the chair.

Dr. WAKELIN BARRATT and Dr. RICHARD M. RALPH exhibited a Right Sylvian Aneurysm lying upon the island of Reil and situated on the main trunk opposite the origin of the ascending parietal branch, the lumen of which was narrowed. The aneurysm, which was of the size of a pea, was met with in a female patient, aged 38 years. Left-sided weakness was noted during life, but no cortical softening was present, nor did the aneurysm rupture, death occurring from an intercurrent condition. No cause could be assigned for the aneurysm, the arteries at the base of the brain being elsewhere healthy. Endocarditis was absent and no evidence of syphilis was obtainable.

Dr. F. W. ANDREWES described a case of Muscular Hæmorrhage in Typhoid Fever dependent upon secondary infection with streptococcus pyogenes. The patient was a man, aged 18 years, admitted to hospital during the third week of a severe and typical attack of typhoid fever. He had chronic double otitis media. He died during a relapse on the fifty-second day of his illness. Two days before death there was pain in the left thigh, followed by a considerable swelling, suggesting deeply-seated fluid. The lesions found post mortem were those characteristic of typhoid fever. There was no endocarditis, and the vessels, including those of the affected limb, were natural. The swelling in the left thigh was due to diffuse extravasation of blood into the substance of the quadriceps extensor cruris, especially the vastus externus. There was no rupture of the muscular fibres. No other muscles were found affected. The affected muscle showed a moderate degree of Zenker's waxy, or hyaline, degeneration, with profuse extravasation of blood. It contained enormous numbers of streptococci and no other organisms. Streptococcus pyogenes was isolated from it in pure culture, and the same organism was found in the heart's blood and spleen, mingled with other bacteria. There was, therefore, good reason to believe that the hæmorrhage was associated with this secondary infection rather than with the primary typhoid fever. The affected muscle was exhibited, together with a teased preparation and microscopic sections showing the distribution of the streptococci and the characters of the degenerative changes in the muscle-fibres. Whether or not the lesion was a true myositis was open to discussion, though this was probably the case. Zenker, Trousseau, and others regarded such cases, which seemed to have been commoner then than now, as due to rupture of the muscle due to a primary waxy degeneration, which Zenker showed to be common in typhoid fever apart from muscular hæmorrhage. More recently it had been held by Arnold, Wehl, and others that waxy degeneration was more often a sequel than a cause of rupture and hæmorrhage, and this seemed to be the more reasonable explanation in the present case, in which the hæmorrhage was evidently septicæmic in character. —Dr. W. CAYLEY said that the present case supported the view that the hæmorrhage was due to streptococcal infection and not directly to the typhoid bacillus. He had seen more cases of hæmorrhage into muscles in typhus fever than in typhoid fever. He did not consider that waxy degeneration of the muscle was peculiar to typhoid fever, for it was often

present in cases of advanced phthisis. Although all the appearances commonly associated with inflammation might not be present in the muscles into which hæmorrhage had occurred, yet he was of the opinion that the condition was an inflammatory one.—Dr. H. M. FLETCHER pointed out the difficulty of making the examination of the muscles sufficiently complete so as to form any accurate idea of the relative frequency of the condition in typhoid fever.—Dr. NORMAN DALTON said that they should take the clinical evidence in conjunction with the pathological, and in this case there was evidence that the hæmorrhage had existed for at most 48 hours; had this been secondary to streptococcal infection it was certain there would have been more evidence of inflammation, and he thought it probable that the streptococcal infection occurred after the hæmorrhage.—Dr. W. BULLOCK was also of the opinion that the streptococcal infection was secondary to the intramuscular hæmorrhage. He also pointed out that Zenker's degeneration could be produced by ligation of a vessel supplying a muscle.—Dr. ANDREWES, in reply, said that although it was difficult to prove he was of the opinion that the streptococcal infection had some causal relation to the production of the hæmorrhage.

Dr. HUGH THURSFIELD described a case of Pleuro-oesophageal Fistula in a boy, aged four and a half years, who was the subject of a neglected empyema which had for six weeks been slowly discharging from sinuses situated in the front of the chest. After resection the pleural cavity did not drain very well, and about one month after operation food taken by the mouth began to pass out of the resection wound. The boy died a fortnight later. At the post-mortem examination a small communication was found to exist between the oesophagus and the right pleural cavity opposite the head of the third right rib. There was no amyloid disease, and no evidence of tubercle, caseous glands, or foreign body was found. The conclusion was that ulceration took place in the pleural cavity, leading to softening and perforation of the oesophageal wall.—Dr. A. F. VOELCKER referred to the fact that caseous lymphatic glands might soften and discharge into the bronchus or oesophagus and possibly also into the pleura. In a similar case which he had reported he had suggested that this was the probable explanation of the condition, and he thought the same explanation might hold good in the present case.—Dr. EDMUND CAUTLEY referred to a case in which he had diagnosed enlargement of the mediastinal gland. An abscess formed in the thorax which was drained and the child made a good recovery. He thought that a caseous gland was the most probable explanation in this case.

Mr. S. G. SHATTOCK described an example of Imperforate Pharynx in an agnathous lamb. Although imperforate rectum was so common in the human subject apart from accompanying grosser defects, it was remarkable that the persistence of the primitive condition (in which the gut terminated blindly at either end) was one of the rarest of malformations affecting the upper part of the alimentary canal and had never been met with except in conjunction with ill-development or absence of mandible or highly marked arrests in the cranio-facial axis, synotia, and cyclocephalus. Congenital atresia of the oesophagus was fairly frequent, but this had nothing in common with imperforate pharynx and was in no sense the homologue of imperforation of the rectum. As Mr. Shattock had pointed out, atresia of the oesophagus was invariably situated opposite the lower end of the trachea and was a condition acquired during fetal life and probably in some way connected with the voluminous growth of the lungs and lower part of the trachea as a diverticulum from this spot of the anterior wall of the oesophagus. In imperforate pharynx the disposition corresponded with what would arise from the abnormal persistence of a normal phase of development. His researches had shown that the stomodæum formed scarcely any of the buccal cavity; that the whole of the tongue was formed from the floor of the blind pharynx; and all this was shown in the specimen he exhibited. The lower jaw was wasting, but the stomodæum was represented in part by an area of mucous membrane covering the under side of the exposed palate and in part by the nasal cavity; there was no communication, however, between these parts and the post-jacent pharynx, from the floor of which a well-formed tongue projected.

Dr. FLETCHER showed a specimen of General Dilatation of the Aorta with Dissecting and Sacculated Aneurysms which Simulated New Growth of the Kidney. The patient, a man, aged 31 years, was on two occasions

in St. Bartholomew's Hospital, during which periods he suffered from profuse hæmaturia and subsequently from hæmoptysis. There was a large, hard nodular tumour on the left side of the abdomen. He presented signs of double aortic disease. At the necropsy the whole of the aorta was enormously dilated; there was a large dissecting aneurysm involving the arch with a sacculated aneurysm on the descending thoracic portion. The abdominal tumour was formed by an aneurysm extending from the level of the diaphragm to the bifurcation, which was filled with firm clot. It lay in front of the left kidney.

Mr. L. H. MACGAVIN showed a specimen of Hydatid of the Gall-bladder; the patient had had a swelling in the abdomen for three years. The abdomen was opened and the hydatid was removed. Hydatid of the gall-bladder, apart from cases in which the liver was also invaded with hydatids, was rare, some three cases only having been reported.—Dr. NORMAN DALTON, who was present at the operation, said that the cystic duct was cut across and ligatured at the time of the operation and therefore there could be little doubt that the hydatid was in the gall-bladder.—Mr. SHATTOCK said that he had carefully searched the specimen for the cystic duct but had been unable to find it. He was of the opinion that the cyst was a pedunculated hydatid and not the gall-bladder, and this was further borne out by the microscopical examination of the wall. He suggested that the subject should be referred to the Sectional Committee for further investigation.

Dr. THURSFIELD showed two card specimens: (1) Cerebellar Tumour arising from the Ependyma; and (2) a case of Porencephaly.

Dr. LEE DICKINSON showed a specimen of Lymphadenoma of Bone.

## CLINICAL SOCIETY OF LONDON.

*Painful Condition of the Twelfth Pair of Ribs.—Displaced Strangulated Femoral Hernia.—Treatment of Wounded Joints.—Surgical Treatment of Ascites.*

A MEETING of this society was held on Oct. 11th, Mr. ARTHUR BARKER, Vice-President, being in the chair.

The new volume of the society's Transactions was brought before the meeting. Mr. BARKER mentioned that the surplus volumes of the series were offered to members at a reduced rate.

Mr. J. JACKSON CLARKE read notes of a case of Painful Condition of the Twelfth Pair of Ribs. The patient was a nursemaid, aged 19 years. She first came for treatment on account of a forward bend of the spine (kyphosis), accompanied by a painful backward projection of the tips of both twelfth ribs. The former was corrected by the use of an antero-posterior support, but the condition of the twelfth ribs remained unchanged, any forward pressure upon them causing great distress. The pain was deeply-seated and Mr. Clarke referred the abnormal condition to rheumatoid inflammation of the costo-vertebral joints. So long as the spinal support was worn it sufficiently protected the ribs from pressure; when, however, the time came for leaving off the support the patient found that she could not bear the pressure of her dress upon the ribs. An attempt was made to palliate the condition by making apertures in the patient's stays, but this did not succeed. The patient was therefore advised to undergo an operation for the removal of as much of each twelfth rib as could be taken away without incising the erector spinae. The operation consisted of cutting down on each bone in turn and removing one inch, including the cap of cartilage, with the periosteum. The deep parts were carefully drawn together by fine silk sutures before the skin-wounds were closed. Rapid healing ensued. There was no subsequent bulging at the site of the operations, and the pain was at once relieved and had not since returned. Mr. Clarke mentioned another case in which one of the twelfth ribs was the seat of occasional swelling, accompanied by great pain. The patient was a woman, aged 40 years, and the swelling was due to inflammation about the junction of the cartilage and the bone. In this case relief was obtained by an abdominal belt made with a recess to receive the tip of the rib.—Mr. BARKER congratulated Mr. Clarke on his paper. The condition must be rare and was outside his experience.—Dr. WILLIAM EWART was glad that the subject had been approached by the surgeons. He wished to refer to a condition which he had described as "acrochondralgia." It

was a very localised symptom and was due to a variety of causes; certainly it was aggravated by corsets unless one of the bones was broken. He would like to hear from Mr. Clarke what evidence there was of definite osteo-arthritic nature of the mischief in the costo-vertebral joint.—Mr. CLARKE, in reply, did not think that tight-lacing had anything to do with the production of the condition in his case. He thought that it was probably due to the action of the muscles on a weakened articulation. He took away about half an inch. The cases referred to by Dr. Ewart were interesting but were not parallel. He referred to the case of a woman, aged 40 years, who had acute pain in the tenth rib, which, when first seen, in the interval of the attacks, presented nothing abnormal, but later, during an attack, he found a swelling at the end of the rib of the size of a filbert. The pain was relieved by a suitable support.

Mr. THOMAS BRYANT read the notes of a case of Displaced Strangulated Femoral Hernia. The patient was a married woman, aged 32 years, who had been troubled with a femoral rupture for about five years but had not worn a truss. The rupture had come down every now and then, and she said that she had never experienced difficulty in its reduction, although on questioning her husband later it appeared that she had often used much force in reducing the rupture, and particularly on March 29th, two days before her present illness. Her illness commenced as a "bilious attack," and it was not till three days passed and the vomited matter had become stercoraceous that the possibility of the case being due to her reduced hernia had been realised and Mr. Bryant's advice sought. When seen on April 3rd she was in an extreme state of collapse and it was clear that life could not be saved. Her abdomen was distended but not tense and there was no swelling in the right femoral region, which was given as the seat of her hernia, although pressure with the pulp of the index finger over the right femoral canal elicited pain. An exploratory operation in the femoral region was, however, determined upon, based upon the established practice of first examining in every case of intestinal obstruction associated with a hernia the region in which a hernia existed. The operation was carried out in the usual way and the obstruction relieved. The operation was completed, but the patient sank as expected and died a few hours later. A partial post-mortem examination could alone be obtained, but from the specimen which was secured by Mr. C. R. C. Lyster, the house surgeon of Bolingbroke Hospital, and which, as dissected and mounted by Mr. Shattock, was now in the Museum of the Royal College of Surgeons of England, it seemed clear that the sac of the femoral hernia had been forced through a rupture of the femoral sheath at its lowest part or apex into the connective tissue of the thigh on the inner side of Scarpa's triangle, and that the seat of strangulation was at the neck of the sac, which was not, as was usually the case, at the femoral ring, but at the orifice of the femoral sheath through which the hernial sac had been forced. Mr. Bryant remarked that the case which he had read was clearly a very unusual one. Indeed, he had never seen or read of a femoral hernia being displaced as this must have been into the fatty connective tissue of the inner side of the thigh, with the seat of strangulation at least one and a half inches below the femoral ring and situated at the mouth of the opening in the femoral canal through which it was probably forced. Had there not been a distinct history of an old femoral hernia in this case there would not have been any local indication to lead the surgeon to suspect that the intestinal obstruction which the symptoms suggested was due to such a cause, for there was a total absence of all swelling, and the sign of pain on pressure over the femoral canal stood alone. Under these circumstances an abdominal operation might have been undertaken, and if so it would have been useless, for the seat of strangulation was outside the abdominal cavity, and could not by such a measure have been relieved, for it must be emphasised that during the operation, when the femoral sheath was first opened, the bowel which was in it was not seen, for it rested in a bloodless and collapsed condition upon its posterior wall, and it was not till the crural ring was enlarged that it made itself manifest by bulging forwards and arching downwards from the femoral ring to the seat of its stricture and the apex of the femoral canal. This portion of exposed intestine was quite healthy looking and pale and contrasted strongly with the deeply congested bowel which was subsequently withdrawn from the displaced hernial sac. The force employed had brought about primarily a rupture

of the femoral sheath at its lower end and secondarily the gradual herniation of the femoral sac with its contents into the space in the connective tissue as demonstrated by the dissected specimen. This case was an example of a third variety of displaced femoral hernia. The first was the well-recognised form in which the small strangulated femoral hernia with its sac might be pressed out of sight and reduced, still strangulated behind the abdominal parietes, the one of "reduction *en masse*"; the second was where a large femoral hernia by some rupture of its sac might show itself as a tumour in the subcutaneous connective tissue above or below Poupart's ligament; and the third as a displaced hernia following the course of this case. In the many varieties of "displaced inguinal" hernia which had been described, and particularly by Mr. J. Birkett and Mr. Bryant in his "Practice of Surgery," the injurious effects of misapplied force had been fully recognised; indeed, it seemed probable that in all the varieties of displaced inguinal hernia it should be regarded as their probable cause. The case illustrated the evils of forcible taxis.—Mr. BARKER said that he had never met with exactly this variety of hernia. He raised the question whether taxis ought ever to be applied to a strangulated hernia, a practice which he had abandoned, he believed, with advantage. He thought that if this view were endorsed by a surgeon of Mr. Bryant's experience it might produce a good effect in practice, both private and in hospital, where he had often seen violent taxis applied in such cases to the detriment of the patient.—Mr. BRYANT, in reply, said it was clearly a femoral hernia, though when he first opened the sac the crural canal appeared to be empty, the intestine being collapsed and flat. He was disposed to agree with Mr. Barker in his remarks on taxis, at any rate in regard to femoral hernia, but an inguinal hernia was rather different. He would not, however, employ taxis even in the latter unless the patient was under an anaesthetic, and then only very gently. Anything like violence would be iniquitous. In a scrotal hernia the neck was usually very large, and it was much mixed up with omentum, so that the bowel was not so readily injured as in a femoral hernia.

Mr. CUTHBERT S. WALLACE read a paper on the Treatment of Wounded Joints. He remarked that wounds of joints fell into three categories: (1) those in which the joint injury was complicated by compound fracture and in which the wounded joint was the lesser injury (the treatment of such a case depended more upon the complicating wounds than on the wound of the joint); (2) wounds, or probable wounds of joints; and (3) doubtful wounds of joints, such as perforating or punctured wounds. The notes of three cases of the second group were read: one of these ended fatally, one recovered with a stiff knee, and the other with a moveable joint. The treatment of such injuries was then discussed and it was maintained that the cleansing of the wound must be mechanical, and therefore that all dirty tissue should be cut away with knife or scissors, and a douche if used was only beneficial because it removed fragments of dirt or soiled tissue; it was, therefore, sufficient to employ sterilised saline fluid, and antiseptic solutions were unnecessary. A search for a wound into the joint was not recommended, as if found it was unlikely that much good could be done, and if an opening was accidentally made into the capsule a serious harm might result. If the opening into the joint was obvious it was recommended to close the capsule without irrigation of the joint and to await developments. The notes of five cases of punctured wounds of joints with resulting infection were then read. In four instances practically full movement was obtained and in the fifth movement was limited to about one-quarter that normally present. It was thought that the best treatment of such cases was arthrotomy with sterilised saline solution and suture of the joint cavity. This process could be repeated once or twice if the condition required it. After this, if the temperature remained high, the incision into the joint could be left open and lavage practised daily. Mr. Wallace thought that if the infection reached the peri-articular tissue surgery could do but little save opening any abscess that might form or ablation of the limb. Drainage by means of tubes through the joint or continuous irrigation were likely to do more harm than good.—Mr. BARKER agreed that in these cases antiseptics were not only useless but were often positively injurious. For many years he had employed only irrigations of normal saline solution whereby his results had improved. With this treatment he had obtained very good movement even in very

severe cases—gonorrhoeal arthritis, for instance. He wished to lay down the principle that once a joint was infected it could not be disinfected.—Mr. F. C. WALLIS observed that it would be an advantage to have some definite plan of treatment laid down for these cases. Mr. Wallace's cases resembled those which he had brought before the society in 1898. These perforating wounds of joints if they became at all inflamed might be treated by a fairly free opening and drainage, a plan which had given him excellent results. In one case the knee-joint was exposed for six weeks, yet movement, though limited, was good. The introduction of drainage-tubes into the interior of the joint and the use of antiseptics were likely to bring about absolute ankylosis with protracted recovery.—Mr. F. C. ABBOTT pointed out that it was long the practice in suppurative peritonitis to make a small opening and to irrigate the cavity, and that treatment was generally agreed to be of the most hopeless kind. It was only recently that they had made large incisions and turned out the intestines so as to enable them to cleanse the entire cavity, and they had thereby got improved results. As to the treatment of adhesions in joints, he asked whether forcible movements were likely to be of more benefit than could be obtained by simple massage.—Mr. WALLACE, in reply, thought that where there was a large outer wound and a small wound into the joint it was worth while giving the joint a chance. He insisted on the fact that cleansing the joint was a purely mechanical procedure and it was no good trusting to antiseptics. He did not think that forcible movements could do any good.

Mr. C. W. MANSSELL MOULLIN read a paper on the Treatment of Ascites by Suture of the Omentum to the Anterior Abdominal Wall. He read the notes of five cases of ascites dependent upon cirrhosis of the liver in which he had adopted this procedure with the view of establishing a collateral circulation, after the Drummond-Morrison method. Two cases died, one four weeks after the operation from pleurisy and the other one week after from exhaustion. In both of these the operation had been performed too late. The disease was too far advanced and there was no time for the anastomotic circulation to be developed. In one of the patients, who weighed over 15 stones, the liver weighed only three and a quarter pounds. The three other patients were discharged from hospital relieved. One could not be traced. The two others were alive and at work at the present time, two years after the operation. Mr. Mansell Moullin pointed out that so far as ascites was of mechanical origin there could be no question that the operation was capable of giving relief. There was the clinical evidence that a certain proportion of patients suffering from cirrhosis of the liver who were treated by repeated tapping got well at last, even after they had been tapped 20 or 30 times, and there was the pathological evidence of the enlargement of the ordinary anastomotic channels between the radicles of the portal and systemic circulations and of the very great development of accessory channels in the freshly formed adhesions, as, for instance, was shown most plainly by one of Morrison's cases which died from an operation for ventral hernia two years after the omentum had been sutured. If, on the other hand, the ascites was held to be not mechanical, or not wholly mechanical, in origin, but to be due to the impairment in activity of the liver cells caused by defective blood-supply, it was equally the fact that the only hope of restoring the activity of those cells and giving them a better blood-supply consisted in establishing a number of vascular adhesions between the contiguous surfaces of the liver and the abdominal wall at a period when compensatory growth was still possible. Mr. Mansell Moullin pointed out that the operation was not, if the cases were properly selected, one that was attended by any serious degree of risk. It was true that the mortality, as judged by statistics, had been very high up to the present, but this was always the case with new operations and was due to the fact that many of the cases were unsuitable, often because of disease in other organs of the body, and that there was a tendency to look upon the operation as a last resource, one only to be performed when everything else had been exhausted. With better selection and earlier operation there was no reason why the mortality should be appreciably higher than that of exploratory laparotomy. So far as technique was concerned, a median incision above the umbilicus was the most convenient and gave least trouble afterwards. Through it the whole of the upper surface of the liver could be reached and the omentum could be fixed to the abdominal wall by sutures passed from its peritoneal surface. Drainage was unnecessary and might be dangerous, as offering additional risk of sepsis. The fluid always collected again, but it collected in the lowest

part of the abdomen and did not interfere with the formation of the adhesions. If it became excessive at any time it might be drawn off again; and this, as shown by the history of the cases which recovered, might require to be done many times in the first few months, until the anastomotic channels had enlarged sufficiently. Ascites was a late and a very serious symptom in cirrhosis, aggravating all the rest and hastening the course of the disease. If, therefore, it was not complicated by diseases of other organs, and if the accumulated fluid did not quickly disappear under the influence of iodide of potassium, it seemed more rational to try to establish an efficient collateral circulation without further delay by an operation which, under such conditions, was not attended by any grave degree of danger, than to allow the patient to drift on in a state of perpetually increasing misery, relieved now and then by tapping, until, in the vast majority of cases, his strength sunk so low that it was too late to do anything more than to watch the progress of the disease.—Dr. CAMPBELL THOMSON referred to a paper on this subject which he had read last session before another society in which he had drawn a distinction between the cases in which the ascites was directly due to the cirrhosis of the liver and those in which it was caused by peritonitis resulting from the cirrhosis. The latter were the cases in which operation was likely to prove beneficial, as proved by post-mortem investigations. The former class usually proved rapidly fatal. Recovery, when it took place, was presumably due to obliteration of the peritoneal cavity by the formation of adhesions, just as pleurisy was cured by the adhesion of the layers of the pleura.—Dr. A. E. SANSON did not think that clinically it was possible to differentiate between the cases of pure cirrhosis and those associated with peritonitis. Cirrhosis was not a simple condition; on the contrary, it was a very complex thing, and he was not disposed to accept the previous speaker's conclusions in regard to the cases which recovered and those which did not. Therapeutically it was necessary to modify the balance of circulation and he thought that surgical measures constituted a better way of effecting this than the old-fashioned plan of tapping with copious diaphoresis.—Dr. NORMAN DALTON agreed with Mr. Mansell Moullin that a great deal depended upon the condition of the other organs. Certainly if there was marked oedema of the feet the results were not likely to be as good as when there was only ascites. He thought that the higher the incision was made the better in order to guard against the occurrence of ventral hernia which so often proved fatal later.—Mr. MANSELL MOULLIN, in reply, agreed with the last speaker in respect of the best site for the incision. He had operated after one or two tapplings—i.e., somewhat early in the history of the ascites.

**NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.**—The annual meeting of this society, followed by the first ordinary meeting of the session, was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on Oct. 10th, Dr. Robert Smith, the President, being in the chair.—The following officers were elected for the ensuing year:—President: Dr. Robert Smith. Vice-Presidents: Mr. J. Rutherford Morison, Dr. R. S. Peart, Dr. W. Gowan, and Dr. J. Adamson. Honorary secretaries: Dr. T. Beattie and Dr. A. M. Martin. Committee: Dr. D. Drummond, Dr. G. H. Hume, Dr. J. Limont, Dr. J. Murphy, Dr. James Drummond, Dr. R. A. Bolam, Dr. I. G. Modlin, Dr. H. B. Angus, and Dr. R. P. R. Lyle.—The following gentlemen were elected members of the society: Mr. R. Stuart (Durham), Mr. P. Campbell Smith (Middleton Hall), Dr. W. G. Thompson (Sunderland), and Dr. H. H. Gourley (Gosforth).—Dr. V. Rutherford showed cases of Rodent Ulcer and of Lupus treated by X Rays. Case 1 was that of a man, aged 57 years, who had been the subject of rodent ulcer at the inner canthus for seven years. His treatment had amounted to 45 exposures, each of a quarter of an hour's duration. The result was a soft and soundly-healed cicatrix. The second case was that of a woman, aged 71 years, who had been the subject of extensive lupus of doubtful origin, probably specific, and who was now almost cured after 30 exposures. In Case 3 the patient was a woman, aged 50 years, suffering from rodent ulcer of the upper lip. She was improving after 15 exposures.—The President, Mr. G. Foggin, Dr. G. H. Hume, Mr. Morison, Dr. J. B. Wardale, and Dr. A. S. Percival took part in the subsequent discussion, which elicited the following points. The normal tissues around the

part exposed were protected by tinfoil. Dr. Foggin suggested the action as being chemical and caustic, referring to the action of blue rays as an analogy. Dr. Hume asked if there was any probability of this treatment being similarly effective in ulcerating internal growths. Dr. Percival suggested that the active agent might be the high frequency current which permeated along with the x-rays and to the vibrations of which no normal cell synchronised, it being therefore harmless to them and yet capable of killing certain organisms.—Dr. Beattie and Dr. Bolam showed cases of Diffuse Specific Aortitis; Primary Aortic Regurgitation.—Mr. W. G. Richardson brought forward a patient in whom Resection of Gut for Strangulated Hernia had been performed.—Dr. Martin showed (1) a Patent Meckel's Diverticulum (this specimen was removed from a child, aged three months); and (2) a man, aged 54 years, who exhibited a very extensive Nævus involving the lower lip, the cheek, the tongue, and the left faucial pillar and extending into the neck. The condition had existed since birth and it was considered too extensive to interfere with.—Mr. Morison brought forward Two Complicated Cases of Intussusception. The first was that of a miner, aged 62 years, who four months previously had severe colicky pains. The spasms came on several times a day, but sometimes a week elapsed between the attacks, which were accompanied by noisy rumblings and great constipation. The abdomen became swollen, especially in the right iliac fossa. During the last months the pains had been very severe and they had been accompanied by vomiting and sweating. The patient had lost weight and was very weak. On admission into hospital he was found to be an emaciated old man with a distended abdomen and presented a rounded mass in the caecal region and a harder mass above and to the right of the umbilicus. Operation revealed a large ileo-caecal intussusception extending as far as the centre of the transverse colon. After reduction a mass was felt in the lower end of the ileum about three inches from the caecum. The involved portion of bowel was excised and the ends were united by direct suture. The patient made a good recovery. The specimen showed the condition to be a large polypus of the ileum which had produced the intussusception. Microscopically it proved to be a myxoma. In the second case a male, aged five years, had been 24 hours before admission suddenly seized with acute abdominal pain and vomiting. The pain was paroxysmal; blood was passed per rectum. The boy was in good condition and presented a sausage-shaped swelling in the left iliac region. On operation the intussusception of the lower ileum was found after reduction to have been produced by an inverted Meckel's diverticulum. The diverticulum was removed and the boy made a good recovery. The specimen showed the Meckel's diverticulum as it was removed turned inside out.

**FOLKESTONE MEDICAL SOCIETY.**—A meeting of this society was held on Oct. 4th at the Queen's Hotel by invitation of Mr. H. A. Powell.—Dr. J. E. G. Calverley and Dr. A. Gordon Wilson were elected members of the society. The report of the Library Committee was received and adopted.—Dr. T. Eastes read a paper on Clinical Errors. He drew attention to various difficulties and mistakes which he had met with in practice, such as cases of polypus uteri mistaken for pregnancy, distended bladder where the normal amount of urine appeared to have been passed, pancreatic cysts simulating abscess in the abdominal wall, and pregnancy diagnosed where it did not exist and being unexpectedly discovered where it had not been diagnosed. He insisted upon the importance of bearing in mind the possibility of pregnancy in all kinds of obscure abdominal swellings, especially when any abdominal section was contemplated, as otherwise serious consequences might arise. Various kinds of injuries were mentioned, especially those about the hip and shoulder, as being sources of many errors and difficulties. Two cases of impacted fracture of the neck of the femur which had become loosened after two or three days served to illustrate the importance of not speaking too positively about the prognosis or diagnosis in such cases until a certain interval had elapsed. Stress was laid upon the use of Bryant's line for diagnosis. The help given by x-ray shadow photography was mentioned, also the danger of the public being misled by the same. The difficulties met with in cases of rash were recognised, also the uncertainty of diagnosis at the commencement of a case of enteric fever. Laryngismus stridulus and whooping cough had been confused. The dangers arising from

the similarity of diphtheria and follicular tonsillitis and the help derived from bacteriology were considered. Some cases of poisoning from drugs were described, the list including morphia, digitalis, Easton's syrup, carbolic acid, phosphorus, belladonna (severe symptoms from the use of a plaster seven and a half inches by four inches for a few hours), cocaine, turpentine, aconite, iodoform, copaiba, bromides, salicin, thyroid extract, and acetate of lead. In operations incision of the tumour was strongly advised in breast cases where there was any possible doubt as to the malignancy of the swelling. Two cases of injury to the uterus during forcible dilatation were mentioned, but in neither did any bad result seem to follow. Dr. Eastes concluded by saying that tales against another medical man's reputation coming from a patient who had just left that gentleman should be discredited. Probably the patient was still in that medical man's debt and had been requested to settle up and instead had called in a fresh medical attendant, to do the same again later.

**LEICESTER MEDICAL SOCIETY.**—The half-yearly business meeting of this society was held on Oct. 1st, Mr. H. J. Blakesley, the President, being in the chair. The President-elect was conducted to the chair by Mr. Blakesley.—A vote of thanks to the retiring honorary secretaries having been passed, Dr. Astley V. Clarke and Dr. R. W. W. Henry were elected to fill their places, the latter gentleman being in place of Mr. N. C. Ridley who resigned office. The following, with the officers, were elected to the Council: Dr. J. Peacock and Dr. J. Hunter, with Mr. Ridley and Mr. C. D. Nuttall.—The following motions were carried in silence:—

That this society records with much regret the death of Dr. John Healdley Neale. His premature death at the age of 51 years is a great loss to the society and the medical profession of Leicester.

That this society records with great regret the sudden death of Dr. Julius St. Thomas Clarke, who was engaged for 40 years in medical practice in the town. He was a member of the society for 38 years, and a former president. He was held in high esteem among a large circle, and his death is a great loss to the society and to the medical profession of the town.

An ordinary meeting of the society was held on Oct. 4th, Dr. F. W. Bennett (President) being in the chair and 21 members being present. Mr. J. S. Sloane was elected a member. Dr. Bennett read a paper on Medicine and Legislation, a Forecast. He divided the subject into two parts: (1) methods to improve the existing race, and (2) methods to safeguard the future race. In the first part he discussed (a) the effect of dust on the atmosphere and its influence in lessening the intensity of light; (b) the advantages to be derived from medical inspection in schools; and (c) the importance of legislation in preventing the spread of tuberculosis by expectoration. In the second part Dr. Bennett discussed the following points: (a) examples of hereditary influence in disease; (b) the frequency of deaf-mutism; (c) the hereditary influence in the congenital cases; (d) the danger of marriage of the deaf; (e) the amount of deafness among the families of the deaf; (f) the amount of nerve defects in these families; (g) the frequency of mental defects; and (h) the hereditary factor in mental disease. He advocated legislative changes to prevent (a) intermarriage of deaf-mutes; (b) intermarriage of hearing people who belonged to families having more than one deaf-mute; (c) marriage of confirmed epileptics; (d) marriage of confirmed drunkards; (e) marriage of those who had once been insane, provided the family history showed a marked taint; and (f) marriage of those who had been more than once insane.—A vote of thanks to the President was carried, on the motion of Dr. F. M. Pope, seconded by Mr. G. C. Franklin.

**PLAISTOW AND CANNING TOWN MEDICAL SOCIETY.**—A meeting of this society was held at the Public Hall on Oct. 4th, Dr. W. C. Taylor being in the chair.—Some questions of a medico-political nature having been discussed a few interesting cases were exhibited by members.—Mr. J. Jordan Harvey showed: (1) A case of Gummatous Ulcer of the Upper Lip in a middle-aged man simulating Epithelioma; (2) a case of Irritable Ulcer of the Leg in an old man; and (3) a case of Congenital Heart Disease with Cyanosis of the Extremities and Webbing of the Fingers and Toes.—Dr. E. Hay showed a case of Mitral Incompetence with Hypertrophy of the Heart in a boy aged four years.—Dr. Leonard G. Guthrie then read a paper on the Treatment of Hemiplegia, which is published in full at page 1035 of our present issue.—A discussion followed in which most of the members present

took part and several questions were put to the lecturer.—Dr. Guthrie, in reply, said that purely motor aphasia might in some cases be improved by instruction on the "oral" system as used for the deaf and dumb. The vocabulary of a patient suffering from "verbal amnesia" had been somewhat increased by making him repeat the names of things over and over again. He (Dr. Guthrie) knew of no methods of improving "word deafness" and "word blindness." He doubted whether digitalis and other drugs were of service in cases of localised œdema—massage and bandaging were more efficacious. Passive movements of the limbs should be employed from the first. Age and the nature of the primary disease were no disqualifications. Treatment of infantile hemiplegia did not differ from that of adults. Cases in which the limbs remained flaccid instead of spastic were generally functional in nature.—A hearty vote of thanks to Dr. Guthrie was then carried and the meeting adjourned.

**BRITISH ORTHOPÆDIC SOCIETY.**—A meeting of this society was held at the Royal Orthopædic Hospital on Oct. 12th.—Mr. H. A. Reeves, who was in the chair, showed: (1) A case of Congenital Absence of Both Fibulæ; (2) Skiagrams of a Similar Deformity in an infant, with Fusion of the Great Toe and the First, in relation to their Phalanges; (3) a Photograph and Skiagram of a case of a woman, aged 42 years, with Lateral Deviation Outwards of all the Fingers at the First Inter-phalangeal Joints (cause unknown); (4) a case of a girl, aged 14 years, with Extreme Valgus of Both Feet and Great Wasting of the Leg Muscles with Partial Dislocation of both Patellæ; and (5) Photographs of Contraction of all Fingers of Both Hands (like Dupuytren's) in an infant.—Mr. Noble Smith showed: (1) Photographs and Skiagrams of a Child, six years of age, with Great Attenuation of the Muscles and Bones of the Leg, with well-marked Anterior Curves; (2) Photographs and Skiagrams of a Rachitic Case, the patient being six years of age, with Peculiar Formation of the Lower Ends of the Femora; and (3) an Engraving of Carcinoma of the Spine secondary to Carcinoma of the Left Femur.—Mr. Muirhead Little read an interesting paper on the Treatment of Lateral Curvature of the Spine.—A very instructive discussion followed in which the following members took part: Mr. Reeves, Mr. C. B. Kestley, Dr. Percy Lewis, Mr. Noble Smith, and Mr. Chisholm Williams.

**BRITISH GYNÆCOLOGICAL SOCIETY.**—A meeting of this society was held on Oct. 10th, Dr. J. A. Mansell Moullin being in the chair.—Dr. F. A. Purcell showed a Cystic Sarcoma of the Right Ovary removed by Abdominal Cœliotomy from a single woman, aged 52 years. The specimen weighed eight pounds. Its circumference at its greatest diameter measured 26½ inches and at its least 18 inches. The patient had lost nothing since the menopause which had taken place six years previously. She had suffered considerable abdominal pain for some time before the swelling first became evident, five or six years before. The uterus, two and a half inches in length, was separate from the tumour. A considerable amount of ascitic fluid was present. The patient made an uninterrupted recovery.—Dr. H. Macnaughton-Jones read a paper entitled "Gynæcological Cases" which is published in full at p. 1031 of our present issue.—Dr. W. Travers read a short communication on a case of a Fibroid Tumour simulating Appendicitis and causing Intestinal Obstruction. The tumour was removed. Some months had elapsed since the operation and the patient now performed her duties without discomfort and any constipation was easily overcome.—A discussion took place upon Dr. Travers's communication and upon the specimens shown.

**WEST KENT MEDICO-CHIRURGICAL SOCIETY.**—The first meeting of the forty-sixth session of this society was held at the Royal Kent Dispensary, Greenwich, on Oct. 4th, Dr. G. Herschell, Vice-President, being in the chair.—The treasurer's accounts and the annual report having been read and adopted and several new members having been elected the following were chosen as officers and council for the ensuing year:—President: Dr. Thomas C. Meggison. Vice-Presidents: Dr. Herschell and Dr. Robert E. Scholefield. Council: Mr. F. Septimus Barnett, Mr. Leonard A. Bidwell, Mr. Charles J. Heath, Mr. Arthur E. Joscelyne, Mr. William Henry Payne, Mr. Chisholm Williams, and Dr. H. Bowen Williams. Treasurer: Mr. John P. Purvis. Secretary: Dr. John P. Henry. Librarian: Dr. F. S. Toogood.—The following cases were then shown. Dr. Toogood: (1) A case of Syringomyelia; (2) a case of Paralysis Agitans; and (3) a case of Removal

of the Right Kidney for Hydronephrosis.—Dr. Scholefield: (1) A case of Lupus treated by the X Rays; (2) a case of Pigmented Symmetrical Dermatitis on Both Cheeks; and (3) a case of Cerebral Tumour.—Dr. Joscelyne: A case of Rupia with a Negative History of Syphilis.

**YORK MEDICAL SOCIETY.**—The inaugural meeting of the session of this society was held on Oct. 9th, when Dr. G. H. Savage of Guy's Hospital, London, delivered an address on the Influence of Surroundings in the Production of Mental Disorder before an audience of about 300 ladies and gentlemen. The address created the very greatest interest.—The annual dinner of the society took place the same evening, when 44 members and friends were present, including the Lord Mayor, the Dean of York, Dr. Savage, Colonel Fielden, Colonel Mapleton, R.A.M.C., Colonel Haynes, Professor Trevelyan, Mr. Lawford Knaggs, Dr. C. Powell White (Leeds), and Dr. A. C. F. Rabagliati (Bradford). Dr. J. H. Buchanan, J.P. (Thirsk), President of the society, occupied the chair. Dr. Bedford Pierce, ex-President, proposed the toast of the evening, "The Orator," which was humorously responded to by Dr. Savage.—The office-bearers of the society for the ensuing session have been recently elected as follows:—President: Dr. Buchanan. Honorary librarian: Dr. J. Ramsay. Honorary curator: Dr. D. S. Long. Honorary secretaries: Dr. Edmund M. Smith and Dr. G. A. Auden. Other members of the Council: Dr. Pierce, Mr. W. Draper, Mr. W. H. Jalland, Mr. H. C. Shann, and Mr. J. H. Gostling.

**CARDIFF MEDICAL SOCIETY.**—The opening meeting of this society was held at the society's rooms on Oct. 3rd, Dr. D. R. Paterson, the President, being in the chair.—The President showed a case of Cervical Pachymeningitis.—Mr. William Sheen showed a patient with Hypertrophy of one Side of the Head and Face in which all the structures—bones and soft parts—participated. Two large flaps of skin had been removed with considerable resulting improvement in the patient's appearance.—Mr. Sheen also showed a Kidney on which Nephrotomy had been performed, an abscess being opened. Subsequently the kidney was removed and a second abscess was found to be present in the cortex, in the wall of which tubercle bacilli were found.—The President read an address on "Some Defects in our Medico-Legal System."—On the motion of the President, seconded by Dr. T. Wallace, the society heartily congratulated its senior secretary, Mr. Lynn Thomas, on being made a Companion of the Bath as a reward for his services with the Welsh Hospital in South Africa.

**MANCHESTER MEDICAL SOCIETY.**—The opening meeting of this society was held on Oct. 2nd.—Professor A. H. Young, the President, gave an account of the Structure of the Ovum and described in detail the phenomena of the karyokinetic division of cells. The different phases were illustrated as they occurred in the equal division of the ovum which followed fertilisation and constituted the process of segmentation. They were also illustrated by the process of unequal division of the ovum which occurred during its maturation and resulted in the formation of the polar bodies. The phenomena observable during maturation, fertilisation, and segmentation were further illustrated, as they occurred in echinus esculentus, by a series of lantern slides for which Professor Young expressed his indebtedness to Dr. T. Bryce of Glasgow.

**HULL MEDICAL SOCIETY.**—The thirteenth annual meeting was held in the Library Room of the society on Oct. 11th, Mr. T. M. Evans, the President, being in the chair.—After some formal business had been transacted the meeting then proceeded to the election of office-bearers with the following result:—President: Mr. R. H. B. Nicholson. Vice-Presidents: Mr. T. M. Evans and Dr. Edward Harrison. Secretary: Dr. James MacNider. Librarian: Dr. Robert Grieve. Members of Council: Dr. Thomas Cameron, Dr. A. G. Francis, Dr. E. M. Hainworth, Mr. Edmund H. Howlett, Dr. David Lowson, Dr. Alfred Parkin, Dr. James L. Waters, and Dr. John Wyllie.

**WATER-SUPPLY OF BOVEY TRACEY.**—At the meeting of the Newton Abbot (Devon) Rural District Council held on Oct. 9th it was decided to apply to the Local Government Board for sanction to borrow £7000 for the purposes of a water-supply for Bovey Tracey. It is hoped that the new works will be ready for use next summer.

## Reviews and Notices of Books.

### *Diseases of the Thyroid Gland and their Surgical Treatment.*

By JAMES BERRY, B.S. Lond., F.R.C.S. Eng., Surgeon to the Royal Free Hospital, and Lecturer on Surgery at the London (Royal Free Hospital) School of Medicine for Women; Surgeon to the Alexandra Hospital for Hip Disease. London: J. & A. Churchill. 1901. 8vo, pp. 384. Price 14s.

ENLARGEMENT of the thyroid gland has from a very early date attracted the notice of physicians and others, and Greek and Latin writers frequently refer to this curious deformity, but it is only within comparatively recent years that the surgeon has been called upon to treat goitre with any frequency. It can hardly be said that England is a goitrous country, for there are many other parts of the world where affections of the thyroid gland are vastly more prevalent than in Great Britain. Yet when we consider the total population of these isles we need feel no surprise that the total number of cases in which the thyroid gland is diseased is very large, so that there is ample material in this country for the foundation of a very wide experience. The author of the work before us has devoted special attention to this subject for many years. In 1886 Mr. Berry was awarded the Jacksonian Prize by the Council of the Royal College of Surgeons of England for his essay on the Diseases of the Thyroid Gland, and in 1891 he delivered the Hunterian Lectures at the same institution on the same subject. On the essay and the lectures this work has been based, but the experience gained in the years which have intervened has naturally modified somewhat the views first expressed.

Many mistakes in reference to the thyroid gland have been made because of an insufficient acquaintance with the variations in the gland, which from their frequency may be called normal. The presence of accessory thyroids is very common, and their existence is of great importance from their connexion with the now almost discarded operation of complete thyroidectomy, a chapter on the anatomy of the gland is therefore of value. The anatomical relations of the gland and its vascular supply are of exceeding moment in operations on it, for the proximity of the recurrent laryngeal nerve and the large number and size of the thyroid vessels may easily lead to serious danger if the operator is not well acquainted with the anatomy of the normal gland.

But of all the diseases of the thyroid gland goitre is the most important. It is probable that to account for the origin of no other disease have so many theories been invented as for goitre, and yet it may be said that not one of them furnishes a satisfactory explanation. Most goitres in this country are probably of the endemic variety and it is to the investigation of the etiology of this form that chief attention has been directed. The author passes in review all the theories which have hitherto been brought forward. He shows that climate has little or nothing to do with the origin of the disease, for goitre is found both in the cold regions of Northern Siberia and in the territories of the Hudson's Bay Company on the one hand, and also in the Tropics on the other. The amount of rainfall and density of the atmosphere are equally unsatisfactory as etiological factors. The physical configuration of the country does not suffice to explain the origin of goitre; though it is true that the districts in which goitre prevails are nearly all hilly, yet many mountain ranges occur, such as those in Scotland, in which goitre is almost unknown. The want of air and of sunshine in some of the Swiss valleys has also been advanced as a cause, but many of the deep valleys of Norway are equally dark and gloomy and yet goitre is in that country very rarely seen. When we come to the geological structure of the soil we appear to be on surer ground, and Mr. Berry considers that

the true explanation of the association of goitre with hills is to be found, not in the configuration of the country, but in its geological structure. The nature of the underlying strata has an enormous influence on the nature of the mineral constituents of the drinking water of a district. The author gives us a very full account of the relation of goitrous districts to their geological structure, and as an outcome of his investigations he is inclined to believe that there is a real connexion between calcareous rocks and goitre. That the drinking-water of a district in which goitre occurs is responsible for the occurrence of the disease there seems but little doubt, for some epidemics of goitre have occurred in regiments which have been quartered in some particular village, and in some cases a village where goitre was formerly prevalent has changed its water-supply and goitre has ceased to occur. It may, then, be regarded as fairly proved that drinking-water is the channel by which the real cause of the disease invades the body. It becomes a much more difficult problem to determine what constituent in the water is responsible for the disease. Since the mere degree of hardness of the water appears to bear no relation to the frequency of goitre it is clear that calcium and magnesium salts do not give rise to the disease. Iron has been blamed, but on very little evidence. Mr. Berry quotes a series of experiments which he made some years ago. He gave to some guinea-pigs various salts of calcium, magnesium, potassium, sodium, and iron; yet though the experiments lasted nine months, no goitre was produced. Mr. Berry does not mention copper as a possible cause of the disease, although there seem to be several arguments in its favour. Of late micro-organisms have been credited with the power of causing goitre, but the proof is weak. Physical exertion appears to have little or nothing to do with the production of the disease, and heredity is at least as doubtful, though, as in the case of many other diseases, goitre occurs in families because all the members of the family are exposed to the same cause.

Of all the symptoms produced by an enlarged thyroid gland the most common and important is certainly dyspnoea, and this is produced by direct pressure on the trachea, for, as Mr. Berry points out, the rarity of dysphonia is clear evidence that the dyspnoea is not produced by pressure on the recurrent laryngeal nerves. A table is given containing notes of 34 cases in which fatal asphyxia was caused by pressure of a goitre, and from this table it is seen that although goitre is much more common in women than in men fatal dyspnoea occurred equally frequently in both sexes. A further important point deduced from this table is that in most of the cases the patients were young adults under 20 years of age—in fact, only seven were over that age. Further, unilateral goitres do not often cause fatal dyspnoea, and some of the most dangerous tumours are those which lie behind the sternum.

Naturally the most important portion of the book is devoted to a consideration of the treatment of goitre. For simple cases in which no operation is required the author advises that the patient should, if possible, remove to a district where the disease is not prevalent. The water suspected of causing the goitre should be filtered and boiled before being drunk, and if the patient is young and the goitre is small much benefit may be derived from the adoption of these measures. Of all internal remedies iodine and its preparations hold the first place, and in this connexion it is interesting to remember that nearly 2000 years ago burnt sponge, which contains iodine, was employed for goitre. Mr. Berry prescribes for ordinary cases of parenchymatous goitre five minims of tincture of iodine with four or five grains of iodide of potassium, the doses being gradually increased until the patient is taking three or four times as much. If the iodine in full doses does not produce a marked diminution in the size of the

gland in two or three weeks the author does not think it likely that it will do any good. If iodism is produced or the digestion is upset the administration of iodine should be diminished or stopped. With regard to local applications, Mr. Berry has not met with much success with the application of iodine. Tapping and injection of a goitre are condemned by the author who tells us that he considers that the advantages are incommensurate with the risks. Ligature of the thyroid arteries and exothyropexy do not commend themselves to Mr. Berry. As to division of the isthmus we are told that it is an operation not to be recommended except, perhaps, in certain exceptional cases. The two chief operations which are required in goitre are extirpation of a part of the thyroid and enucleation of a tumour from the interior of the gland. In the great majority of cases partial extirpation is the operation performed and the whole procedure is very carefully described and given in great detail. Mr. Berry tells us that if there is little or no dyspnoea or stridor there can be no objection to the administration of a general anæsthetic, but if there is any probability that serious dyspnoea may occur during the course of the operation then it is better to dispense with a general anæsthetic and to do the operation under cocaine or eucaïne. A general anæsthetic is especially dangerous if severe dyspnoea is present at the time of operation, for under such circumstances sudden death has occurred even before the operation has commenced. We need not follow the author through the whole operation; he discusses fully the various steps, and the description shows that it is written by one who knows his subject well.

An interesting chapter is added by Mr. Berry on the Results of Operations; and here it is shown that before 1851 the mortality was 31 per cent., from 1851 to 1876 it was 20 per cent., and from 1877 to 1882 it was 14.6 per cent. The mortality at present is certainly under 3 per cent., and in skilled hands it is probably less than 1 per cent. In Mr. Berry's last 80 cases there has been no death or serious complication of any kind. An appendix gives notes of 100 consecutive cases of removal of goitre by operation performed by the author since February, 1894. The book contains more than 100 illustrations, the majority of which represent patients before and after operation.

We may conclude by expressing the opinion that the book is one of the most important works in English on the subject with which it deals; it is clear, exact, and concise, and for many years it will be read and appreciated as a valuable account of the surgery of the thyroid gland.

*Handbook of Physiology.* By W. D. HALLIBURTON, M.D. Lond., F.R.S., Professor of Physiology, King's College, London. Fourth Edition, being the Seventeenth Edition of Kirkes' Physiology. With upwards of 680 Illustrations, including some Coloured Plates. London: John Murray. 1901. 8vo. Pp. 888. Price 14s.

THE frequency with which this work has been re-edited is sufficient evidence of its adaptation to the wants of the student. Originally founded on the lectures of Sir James Paget at St. Bartholomew's Hospital, delivered in 1843 and succeeding years, by Dr. Kirkes, it at once took a prominent place amongst the, at that time, rare works on physiology. Its only competitor was the excellent manual of Dr. Carpenter. Both works, by the introduction of histological details, then quite a novel feature, attracted attention and they became the recognised text-books of the schools. There was, indeed, a treatise of wider scope than either of these—Dr. Baly's translation of Müller's Physiology—but it was too profound for the majority of students and was, we imagine, consulted by teachers rather than by the taught. Those who had the privilege of listening to Sir James Paget's lectures could read his

language in many pages of the "Handbook" though they could not feel the charm of his delivery or experience the pleasure of listening to his exposition of facts and theories that were not to be found in any book published in English at that time. After several editions had been published by Dr. Kirkes the task of revising it and bringing it up to date was successfully undertaken by the late Mr. Marrant Baker and by Dr. Vincent Harris. A year or two ago, the demand for the work being still considerable, Mr. Murray wisely submitted it to the consideration of Professor W. D. Halliburton to determine whether it could be made a reflex of the actual condition of physiology. Professor Halliburton undertook the task and by striking out much that had become effete and by adding still more rendered necessary by the progress of physiology produced one of the best manuals for the student which we possess. So many and so considerable have been the alterations made by Professor Halliburton in the work that very little of the original now remains, and Mr. Murray in a publisher's note prefixed to the text states that in consequence of its high reputation and wide popularity he has determined to drop the time-honoured name of "Kirkes" and to substitute for it that of the real author of the volume, Professor Halliburton. Mr. Murray incidentally notices that a pirated edition has been for some years past in circulation in the United States for the contents of which he does not feel himself or the author responsible. Professor Halliburton states in his preface that he has once more subjected the book to a thorough revision whilst trying to keep in mind that the book is a student's text-book and that consequently unnecessary detail was to be avoided. New sections have been introduced on the significance of Nissl's granules, on Waller's work on the Electrical Currents of the Eyeball, on Cannon's researches in connexion with Stomach Movements, and on Waymouth Reid's Investigation of the Processes of Absorption. Many other sections have been extended and modified, though the size of the work has not been enlarged owing to the elision of antiquated matter. Several new woodcuts have been introduced, but some of the old ones want renovation, notably the chromo-lithograph representing blood and other spectra, which is very coarse, and Figs. 146, 268, and 344. These and several others contrast unfavourably with the beautiful drawings in various French and German treatises. Considering the importance of the sympathetic system of nerves a section might be added to bring the facts distributed through the volume to a focus. The sections dealing with the Chemistry of the Body are, as might be expected, both full and accurate. The book is an eminently trustworthy one and will prove, whether read alone or in conjunction with others, a valuable foundation for, and introduction to, the large treatises on physiology.

*Die Behandlung der Entzündlichen Erkrankungen der Gebärmutter-Adnexe mit dem galvanischen und dem faradischen Strome (The Treatment of Inflammatory Affections of the Uterine Appendages with the Galvanic and Faradaic Current).* By Dr. JOHANN KALABIN. With 3 Illustrations in the text. Jena: Gustav Fischer. 1901. 8vo. Pp. 230. Price 6 marks.

THE author has treated a considerable number of cases of salpingo-oöphoritis, both simple and gonorrhœal, and chronic inflammation of the ovaries by the galvanic and faradaic currents. He has embodied his own results as well as the results of his colleagues and those recorded by others in this *brochure*. Personally, in cases of salpingo-oöphoritis he employs the galvanic current. The positive electrode is placed in the vaginal fornix corresponding to the diseased tube, or in either fornix alternately, and the negative electrode, the clay one of Apostoli, upon the abdomen. The strength of the current varies from 10 to 50 milliampères, and the number of the sittings, which

Last from seven to 15 minutes, are from 15 to 30. The patient, after a rest of about a quarter of an hour, is allowed to return home and to resume her normal occupations. The author combines with this treatment the use of daily hot vaginal douches. If necessary the patient returns at the end of six months and if it be required is subjected to a further course of from five to 15 sittings. In the treatment of chronic inflammation of the ovary Dr. Kalabin uses the faradaic current. The one electrode is placed in the vaginal fornix and the other, a copper plate covered with flannel, upon the abdomen. As the result of his own experiences and of the results obtained by others the author comes to the following conclusions. The treatment of salpingitis and salpingo-oöphoritis with the constant current often leads to a complete or almost complete cure. The presence of a pyosalpinx contraindicates such treatment. Of 24 cases of pyosalpinx treated in this way in five the condition was rendered worse and in one death ensued. The bleeding accompanying salpingo-oöphoritis tends to cease as a result of vaginal galvanisation with a current of 30 milliamperes. The cessation of the bleeding does not depend upon cauterisation of the mucous membrane of the uterus. Salpingitis and salpingo-oöphoritis complicated by fibromyomata of the uterus or broad ligament should not be submitted to electrical treatment. In many cases of oöphoritis, more than half of the cases collected, the use of the galvanic or faradaic current led to complete recovery. The use of the constant current for the treatment of salpingitis and salpingo-oöphoritis due to the gonococcus leads in many cases (11 of the 42 recorded) to a good result. The exact part played by the electrical treatment in these cases is difficult to determine. We are, however, even yet only on the threshold of our knowledge with regard to the use of electricity in these and many similar conditions, and the author's results are therefore of considerable interest.

*The Mental Functions of the Brain.* By BERNARD HOLLÄNDER, M.D. Freiburg in Baden, M.R.C.S. Eng., L.R.C.P. Lond. London: Grant Richards. 1901. Royal 8vo. Pp. 512, with several Plates. Price 21s. net.

IN this work an attempt is made by the author in the direction of the revival of phrenology and the "clearing up of the mystery of the fundamental psychical functions and their localisation in the brain." Dr. Holländer, moreover, claims that it is the "first work on the subject since the dawn of modern scientific research," and seeks to base his views on scientific data, clinical, pathological, and comparative. The work is thus a pretentious one and its claims are of an exceptional character.

After a discursive sketch of the present state of mental science the author proceeds to deal with the pathology of melancholia. Starting from observations attributed to Jensen and Tigges that the frontal lobes of the brain are not affected by loss of weight in melancholia, in contrast to general paralysis, a localisation is sought for melancholia in the parietal lobe, or, to be more exact, in the angular and supra-marginal gyri. Indeed, this "discovery" is said to have been foreshadowed by Gall, the founder of phrenology, in the beginning of the nineteenth century. A number of cases culled from various sources and of varying degrees of value are quoted to support this conclusion, and in some of these the co-existence of word-blindness is noted. Many of the facts quoted are, however, open to other interpretations, and the author's conclusions at the end of the chapter are by no means established, especially his thesis that the "emotion of fear" is located in these gyri. In the following chapter the localisation of violent mania regarded as a morbid form of the emotion of anger is attempted. Gall's description of the brains of homicides is acknowledged as the basis

for this localisation, and several post-mortem records are cited. The following is a typical instance of the author's method of stating facts and deducing conclusions. "Male, aged 19, admitted into the asylum suffering from *epileptic mania*. He was described as very violent before and after the attack. On admission he was found to be a muscular youth. . . . Mentally he was irritable and excitable, took offence at trifles. Post mortem.—*Tumour found at the base of the brain*" in the left lenticular nucleus. This case is cited as one of the "proofs" that *mania furiosa* is located in the temporal lobe. A similar loose handling of data is observable throughout the book and not only detracts greatly from its value but weakens our belief in the soundness of the author's judgment generally. A similar verdict must be recorded of the connexion alleged by the author to exist between irascible mania and otorrhoea with earache. So, too, much of the neuro-pathology quoted by the writer is antique and obsolete. For instance, the old and abandoned view that epilepsy is due to sclerosis of the cornu ammonis and to asymmetrical enlargement of the lateral ventricle is made the foundation for further localisation, and the conclusions (nine in number) recorded on pages 181 and 182 are rendered doubtful. Delusional insanity with ideas of persecution is next located in the posterior temporal region, and kleptomania in the anterior temporal region in accordance with an observation of Gall that incorrigible thieves had a prominence in the corresponding part of the skull. When the subject of aphasia in its various forms is touched upon the clinical material is more satisfactory and an attempt is made with great dexterity to read into the conclusions of clinical neurology a phrenological theory. Among other curiosities we find "veneration" localised at the crown of the head (the site of the anterior fontanelle), while sexual desire is located in the lateral lobes of the cerebellum.

#### LIBRARY TABLE.

*Atlas and Epitome of Labour and Operative Obstetrics.* By Dr. OSKAR SCHAEFFER. Authorised translation from the fifth German revised edition. Edited by J. CLIFTON EDGAR, M.D. With 14 Lithographic Plates in colours and 139 other Illustrations. Pp. 110 and plates. London and Philadelphia: W. B. Saunders and Co. 1901. Price 9s. net.—*Anatomical Atlas of Obstetrics.* By Dr. OSKAR SCHAEFFER. Authorised translation by J. CLIFTON EDGAR, M.D. With 122 Figures in 56 Lithographic Plates, and 38 other Illustrations. Pp. 315. London and Philadelphia: W. B. Saunders and Co. 1901. Price 13s. net.—Dr. Clifton Edgar has made an authorised translation from the fifth revised German edition of the *Atlas and Epitome of Labor* and from the second revised German edition of the *Anatomical Atlas of Obstetrics*. The two German editions were noticed by us in THE LANCET of Oct. 28th, 1899 (p. 1173), and June 23rd, 1900 (p. 1807). The translator has made no additions to the text and has allowed the classification of presentations, positions, and obstetric operations to stand as in the original; in all statements of the French weights and measures, however, the English equivalents have been given. As we have already said, the amount of information contained in these two volumes is considerable, and for the English student or practitioner who wishes to become familiar with current German views and teaching in obstetric medicine the translations will prove of service. The translator appears to have done his work well and many of the figures are of value and well reproduced.

*Banks and their Customers: a Practical Guide for all who keep Banking Accounts, from the Customer's Point of View.* By HENRY WARREN. Fifth edition. London: Effingham Wilson, Royal Exchange, E.C. 1901. Pp. 77. Price 1s.—The author writes as one who is evidently "behind the scenes," and it is somewhat appalling to

the majority of us, who look upon our bankers as highly respectable old gentlemen and entirely above suspicion, to learn that they are all more or less opportunist thieves. We trust the author's views are exaggerated in this respect. Mr. Warren also does not hesitate to give utterance to his opinion that the reason why bank clerks do not "oftener make a bolt with the cash or indulge in extensive forgeries" is that "they have not got the pluck." Alas for the boasted civilisation of the twentieth century and the teaching of the various Christian bodies that the reason why a man does not rob his employers is not the restraining influence of duty or of religion, but want of pluck! We are the better for the fewer exhibitions of such pluck. Apart from this, the book contains some very useful information.

#### JOURNALS AND MAGAZINES.

*Revue d'Hygiène et de Police Sanitaire.* Vol. XXI. No. 9, Sept. 20th, 1901. Paris: Masson et Cie.—In this number Professor Fournier asks the somewhat difficult question whether or not the students of the higher classes in schools should be initiated into the dangers of venereal diseases. Professor Fournier answers the question in the affirmative and he points out that out of 10,000 cases of syphilis 822, or 8.22 per cent., contracted the disease before the twentieth year—i.e., from 14 to 19 years of age. Similarly he shows, when dealing with severe tertiary manifestations, what a large proportion of such cases contracted their primary infection before the twentieth year. Professor Fournier holds the view that boys who are budding into manhood should be told the dangers of venereal disease and warned how widely distributed such diseases are among women practising either open or clandestine prostitution. There are two other original communications in this number: one by Dr. Berthier upon Rational Boots and the other by Dr. Raynaud on the International Sanitary Council of Morocco; but the greater part of the volume is taken up with the doings of the British Congress on Tuberculosis.

*Children's Ailments and How to Treat Them.*—The Home Series. Edited by FLORENCE WHITE. London: Grant Richards. Pp. 100. Price 2d.—This little book is as excellent as its predecessor, "Home Nursing," which we had occasion to notice very favourably. Intended for the guidance especially of those to whom medical advice may be difficult of access, through pecuniary or other reasons, the book gives sound practical directions in just those matters where an uninformed mother may work so much unintentional harm. Care and cleanliness in the feeding and general surroundings of infants, simplicity of life, abundance of fresh air and natural exercise are among the things the importance of which is demonstrated. Other chapters deal with common accidents and ailments of children in a simple and practical manner, likely to render the nurse and mother acquainted with these instructions less helpless if alone and a more useful assistant to the medical man than she would otherwise probably be.

**WEST OF ENGLAND EYE INFIRMARY, EXETER.**—The new West of England Eye Infirmary was formally opened by Lady Clinton on Oct. 4th. The plans of the building provide for a structure with wings on either side of the central block, but at present only the eastern and central blocks are complete, the remaining wing being delayed through want of funds. The sections completed have been erected at a cost of £18,000, towards which £12,000 have been received, so that £6000 have still to be raised. The institution is fitted up in the most approved manner and is lighted by electricity. Accommodation is provided for 50 in-patients; when the remaining wing is completed this number will be increased to 85. At present the new structure is connected by a covered way with the old infirmary, the second oldest eye infirmary in the kingdom, which will continue in use until the additional wing is ready.

## Analytical Records FROM THE LANCET LABORATORY.

### "PHOS. CO." BAKING POWDER.

(THE "PHOS. CO." MANUFACTURING COMPANY, LIMITED, 91A, CHEAPSIDE, LIVERPOOL.)

It is satisfactory that the Food and Drugs Act of 1899 includes baking powder as an article of food in its provisions, because injurious ingredients have been shown to be employed in baking powders, chiefly as substitutes for tartaric acid. Alum is well known as such an objectionable ingredient. So-called superphosphate or acid phosphate of lime has been used for a similar purpose. Providing that the superphosphate is pure and free from arsenic, which is not usually the case, little objection can be raised against its use considering the small quantity required for the efficient aeration of bread or pastry. Sulphate of lime, however, is an inevitable and considerable constituent of "superphosphate," and in some cases its presence in bread would be open to objection. But the quantity present in the loaf would be small. The baking powder under examination differs from most powders in containing an acid salt which by its interaction on carbonate of soda not only sets free carbonic acid gas but forms also a sodium salt which is a useful dietetic constituent. The powder on moistening effervesces briskly and its use in bread produces a loaf of excellent and uniform texture and of good colour. We could find no objectionable constituents in the powder. Its composition has been well thought out, so that it is not only useful for raising bread but increases its food value by augmenting the phosphatic constituents.

### LIQUEUR SCOTCH WHISKY.

(MARSHALL, McEWEN, AND CO., 146, ST. VINCENT-STREET, GLASGOW. LONDON OFFICE, 31, KING WILLIAM-STREET, E.C.)

This is an excellent and mature spirit, free from excessive extractives and without any appreciable degree of acidity. Analysis showed the following results: alcohol, by weight 39.80 per cent., by volume 47.13 per cent., equal to proof spirit 82.59 per cent.; extractives, 0.15 per cent.; acidity reckoned as acetic acid, 0.039 per cent.; and mineral matter, *nil*. The residue obtained on extraction by ether possessed the characteristic smell of a sherry cask. The flavour is smooth and malty, though somewhat sweet. The spirit gave no evidence of the presence of higher or injurious alcohols or of other raw products of which furfural is the type.

### MELLIN'S FOOD CHOCOLATE.

(MELLIN'S FOOD, LIMITED, STAFFORD-STREET, PECKHAM, LONDON, S.E.)

This chocolate contains an addition of the well-known Mellin's food and yields results on analysis in accordance with this description. It is of excellent flavour and evidently a chocolate of high quality is used for the purpose. Analysis showed, however, only a comparatively small proportion of proteid, the amount being 6.55 per cent. Carbohydrates were present in an easily digestible form and the mineral matter amounted to 2.62 per cent., consisting almost entirely of phosphates. The chocolate is a very agreeable food.

### COOYMAN'S LIQUEUR ADVOCAT.

(A. WEBSTER AND CO., LIMITED, 3A, BASINGHALL-AVENUE, COLEMAN-STREET, LONDON, E.C.)

This "liqueur" is made in Holland and, unlike most liqueurs, is a powerful restorative and food. It consists essentially of an emulsion of the yolk of egg with spirit, aromatics being added to give a pleasing flavour. Our analysis gave the following results: solid matters, 27.48 per cent.; mineral matter, 0.22 per cent.; water, 49.57 per cent.; alcohol, by weight 22.85 per cent., by volume 27.86 per cent., equal to proof spirit 48.82 per cent. The mineral matter contained, as might be expected, phosphates in abundance. Evidence of the presence of organic sulphur was distinctly gained. The preparation has an agreeable aromatic flavour and, considering its composition, is undoubtedly stimulant and restorative.

# THE LANCET.

LONDON: SATURDAY, OCTOBER 19, 1901.

## Hoch! Professor Virchow.

ON Saturday last an anniversary was celebrated in Berlin which has impressed the whole civilised world, and, in particular, has caused all those sections of thinking persons who take an interest in science to reflect on the possibilities for good that lie in the brain of an individual worker. For the proceedings in Berlin, as will be seen from our report of them, testify in a remarkable manner to the admiration which the whole scientific world has for the vast and far-reaching character of Professor VIRCHOW's pathological and anthropological work. Scientific men benefit their generation in different ways, just as men with powers of artistic achievement may do; but there is one rough difference very generally existent between the two classes. The artist has all life for his theme; the scientific man is, as a rule, a specialist in some department of life, which may be large or which may be small, but which is none the less a department. He does his work: probably this work overlaps the work of brother men of science who are applying themselves to the study of a second department of exact knowledge, and who in their turn overlap with their labours the labours being carried on in a third department. The world is especially fortunate if the outcome of such special endeavours can be made to fall under one great scheme; and of all the benefactors of civilisation the most practical is he who can not only detect the factors that are common to the separate results of individual endeavour, but who can systematise these results and interpret their true significance by the formulation of a general law. Such a man was DARWIN, such a man is LISTER, and such a man is VIRCHOW; and comparison can rightly be claimed for each of them with the poet or the painter. Professor VIRCHOW is one of the rare figures in the world's history of men who have been able to combine in their work the results of specialised endeavour with a poetically immense imagination. Just as great works of imagination—the really great picture, oratorio, or poem—deal with the elementary passions and appeal to us by senses that are common in greater or less degree to the whole world, so Professor VIRCHOW's pathological work has been large and simple. Extraordinary application and insight may have gone to its accomplishment, but its meaning is clear and its value undoubted. Fifty years ago he laid the foundations of modern pathology by beginning a series of investigations which terminated in the enunciation of the doctrine of *omnis cellula e cellula*. Before his work at Würzburg University there was no working theory that would really account for the commonest pathological processes. It was imagined that a formative but structureless blastema was thrown out between injured and separated surfaces, and that, for some reason or other, this blastema was obliging enough to become tendinous where the injury was of

tendon, muscular where it was of muscle, and so on. VIRCHOW perceived that the whole process had factors in common whatever the injury and whatever the tissue concerned; while his understanding refused to admit as satisfactory the theory of free-cell formation which amounted, in his opinion, to the doctrine of spontaneous generation. After much patient endeavour he demonstrated the fact that all living tissues were composed of cells and that the transforming and reparative processes which went on in those tissues were the results of changes in those cells.

He has himself put on record the circumstances in which his studies took the directions that have led to such great events, but those circumstances may well be repeated, especially as they bear out the view that only a man gifted with great powers of imagination could possibly have seen so far ahead, and so have been supported during his investigations by the expectation of important issues. It was towards the end of his academical studies, more than 50 years ago, that young VIRCHOW had to take up the work of assistant in the ophthalmic clinic of the Charité Hospital at Berlin.

"We had" (these are his words in the Huxley Lecture<sup>1</sup> delivered at Charing Cross Hospital in October, 1898) "severe cases of keratitis, but I saw in them no exudation. Numerous cataract operations were performed; the wounds were closed, but not by plastic exudation; this was absent from all corneal scars. Could this be explained by the circumstance that the cornea, apart from its circumference, is a non-vascular tissue? I then turned my attention to the non-vascular tissues; first to the articular cartilage, and behold, here also I found the greatest changes without the presence of exudation, or at any rate of plastic exudation. My experimental studies then extended to the walls of the larger arteries and then also in part to the veins, and they showed equally that they can undergo great changes without even a trace of exudation. Later investigations on endocarditis led to the same result, provided that parietal thrombi are not regarded as exudation. In all these cases and in every place we found changes in the tissue cells—active, such as multiplication of nuclei, or passive, such as fatty degeneration. Most of these processes were of the nature of proliferations."

It will be seen that VIRCHOW at once grasped the significance of his observations: he saw by the power of his imagination whither they would carry him. The actual phenomena lay before the eyes of all, yet this young house-surgeon was the first to whom their true meaning was revealed. He saw that the theory of a plastic exudation was arbitrary and erroneous. He saw, to use his words again,

"that there is no such thing as plastic exudation which is ever simply amorphous; the cells which have been found in it have not arisen there. It is proved in numberless places. The doctrine of the discontinuous origin of pathological new formations is set aside. Every such new formation presupposes tissue from which its cells arise, that is, its matrix. Pathology has been late in arriving at a knowledge of this correspondence, but I think it has acquired special value for biology in general. Proliferation is an active property of special cells but it cannot be performed by all cells alike. That in no way alters the fact that it can only be performed by cells. It is just as little a function of the entire organism, for this would then have to be unicellular. In this property lies the explanation of origin from a single egg, the wonderful process which comes to pass but once in the life of the animal. Once the tissues have arisen each cell of the tissue may, in respect of proliferation, be compared to an ovum; it brings forth a new progeny from which new tissue grows, this tissue bearing, as a rule, the stamp of its matrix; it is built on the maternal type."

<sup>1</sup> THE LANCET, Oct. 8th, 1898, p. 909.

As a result of Professor VIRCHOW's demonstration of these pathological views it follows that the pathologist of to-day can no more conceive of organised structures exhibiting vital phenomena, whether the simplest or the most complex, without reference to the cell as a unit than we can conceive of the sun apart from light and heat. The biologist, the pathologist, and the chemist, their labours all combined, cannot solve the whole problem of existence, but thanks to Professor VIRCHOW's labours—to his splendid imagination grafted upon his painstaking search for truth and his exact verification of detail—we can congratulate ourselves upon some progress. We can repeat with confidence another of his sayings, "that the future of medicine will be secured if the connexion between clinical practice and the facts of pathological anatomy and experimental pathology is maintained unbroken."

Professor VIRCHOW's career as a politician would have made him a notable citizen of the great German empire apart from all the work by which he has rendered his name internationally famous; but it is not our place to make more than a passing comment upon this phase of his full life. He has been called an ardent reformer, but his views were what might have been expected from a sound and enlightened man of science. He desired to see his country developed for the better, he worked for the gradual replacing of what was ill, for the regular elimination of faults, and for the no less regular introduction of improvements. He displayed in imperial and municipal politics the qualities of foresight and accuracy that had rendered him famous in science, and won golden opinions as an economist and a practical sanitarian. No true medical man can ever be a party politician—the label under which he votes can never more than partly describe his creed; and Professor VIRCHOW, while he was a Radical in conservative opinion, was ousted from his seat in the Reichstag for a Berlin constituency by the Social Democrats. As a true medical man he knew that complicated ills can hardly ever be dealt with by one drastic operation: they require all-round treatment. At the same time he knew that to tinker in this direction or in that, in the desire to deal with symptoms, and to neglect an exhaustive search for a common cause of the symptoms is almost certainly to condemn the patient to death. Hence his political life has been no bed of roses. Probably he could not go fast enough or far enough to please some, while his zeal for reform was too hot to suit others. He has lived to see the development of the German Empire from a congeries of isolated kingdoms, unable to see that their common good demanded a common policy and a common head, into a strongly welded union. He had stormy passages with the great architect of that Empire, Prince BISMARCK, and on all occasions he stuck to his guns. He was as a politician the true man of science, believing that all proceedings on a false theory must lead to disaster. Political quackery was abhorrent to him, and where he thought a system wrong, whatever the eminence of its supporters, he was bold to speak his mind. It is not to be wondered at that the career of such a man has inspired his scientific brethren with the desire to do him honour upon his eightieth birthday. We share that desire. HOCH! Professor VIRCHOW.

## The Reorganisation of the Royal Army Medical Corps.

THE report of the Committee on the Reorganisation of the Army Medical Services has, on the whole, met with a fierce fire of adverse criticism. It seems to be forgotten that that document is after all only a *report* embodying the recommendations of a committee, and it may be asked whether it is not somewhat premature to pronounce absolutely condemnatory judgment on a still immature scheme, about which there is yet so much to be learned? Might it not be well before entering upon a course threatening to arrest the growth and development of further efforts in this direction to wait until something more is known about the scheme and the intentions of the Government in regard to it?

There are two ways of dealing with the scheme at this stage of its career. One is to disregard any honest and well-intentioned attempt on the part of its framers to deal with a confessedly very difficult and complicated subject and to hail its advent by mercilessly setting about to find out all its flaws, actual or potential, thus threatening its existence *ab initio*. The other and more conciliatory method is to regard the aim and spirit of the scheme, as outlined, in a general, broad, and comprehensive manner, to credit its framers with honesty of endeavour and purpose if such be apparent on the face of it, and to defer the task of searching for all the blots and defects that might be discoverable in their proposals, until their exact effect and bearing are better known. By showing a disposition to consider frankly and favourably any *bonâ-fide* scheme of reorganisation a fair claim is set up that regard must be given to subsequent criticisms and objections. In the case of the long controversy that has been going on between the medical services and numerous Governments we have considered that it was in the interest of the medical profession as a whole and of the medical services in particular to take the latter course. It cannot be denied that the report of the Committee on the Reorganisation of the Army Medical Services, in addition to an increase in the pay of medical officers, contains some other good proposals and suggestions. If it contained nothing else than a suggestion as to the possible translation of the medical school from Netley to London and the provision of a military hospital in the metropolis, where medical officers would have unrivalled opportunities for seeing hospital work and for obtaining clinical instruction of the best and most varied kind, it would be a great step in the right direction and, as we believe, of great value to the medical service. We need not say that, having already advocated this measure, we quite concur in all that Sir WILLIAM MACCORMAC has recently said on the subject. As he pointed out, some institution is required similar to that of the Kaiser Wilhelm Institute of Berlin. It would have been easy enough to find a number of points in the report which lent themselves to criticism or about which misgivings would naturally arise, for some of them lie on the surface, but we thought that such criticism would follow naturally and smoothly upon detailed consideration of the scheme. As we have stated, the effect and working of some of

the recommendations must for a time partake of the nature of experiments, and these would probably lead to modifications, developments, and improvements being introduced for which we consider there is ample room left in the scheme. We have from the first regretted that Mr. BRODRICK did not nominate some army medical officer of high rank, experience, and recognised ability as a member of the Committee. It was unquestionably a grave omission. But in another direction the constitution of the Committee was carefully considered. It is plain that one of the great aims of Mr. BRODRICK and the Committee has been to bring the Army Medical Services into the closest relations with the medical profession in civil life. Several distinguished men in the civil branch of the profession, some of whom had had war experience in South Africa, and to all of whom the requirements of the profession might safely be entrusted, were nominated members, and took part in the proceedings, of the Committee. The report was signed by all the members, although two of their number have added exceptions—viz., Sir WILLIAM THOMSON and Professor ALEXANDER OGSTON.

We entertained from the first serious doubts as to the size and workability of the Advisory Board charged with its numerous functions, and we hold, as we have already stated, that the Director-General, who is to be its chairman, must have a seat on the Army Board. We have also indicated that the *chevaux de frise* of examinations and conditions set up by the report will have to be considerably modified; indeed, for our own part we should be prepared to see them removed, although some machinery must, of course, be provided for the efficacious testing of medical officers upon whom great responsibilities will devolve. In many other respects the recommendations of the Committee are susceptible of, and will assuredly have to undergo, alteration and improvement. Little or nothing is said in the report about service in India, presumably because nothing has yet been definitely settled between the Government in this country and that of India. There is, to our minds, no actual or implied finality about the report of the Committee. We are convinced that it is a scheme *honestly* put forward, and therefore we think that our professional brethren may well be invited to consider its merits as well as its shortcomings. Hastily to boycott it is to create an *impasse* at a most unfortunate juncture. Because the Army Medical Service has been badly treated in the past that is no reason why the scheme propounded by Mr. BRODRICK's Committee should not receive the attention which in many respects it deserves.

### Small-pox and Anti-vaccination.

HAWTHORNE wrote: "Nobody will use other people's experience, nor has any of his own till it is too late to use it." His conclusion might well have been founded upon study of the behaviour of those who now decry vaccination and who assume that its value as a prophylactic against small-pox has never been made the subject of proper inquiry. Mr. BERNARD SHAW, writing to the *Times*, tells us that vaccination has never been scientifically investigated because it has been assumed that the science involved is

the science of therapeutics, and of this most medical men, and almost all vaccinationist and anti-vaccinationist controversialists are so ignorant that they do not know that such a science exists and assume statistics to be a natural faculty of man, like English political public speaking. "Anybody can prove," he says, "by the statistical methods used by the disputants, and even by our Royal Commissioners, that typhus fever has been extirpated by the introduction of hair-brushing by machinery, or that the alarming increase of child-mortality from measles and adult mortality from cancer is due to the spread of teetotalism, to the use of the telephone, to vaccination, or any other contemporary phenomenon you please." He therefore proposes that the London University should be invited to undertake a purely statistical investigation of the question and to publish the result.

We have referred at length to Mr. SHAW's statement because it is illustrative of the carelessness which characterises the action of the would-be teachers of the public on a matter of such vital importance as their protection against small-pox. Mr. SHAW contends that only persons highly qualified in statistics deserve to be listened to on this subject and in the same letter he condemns in wholesale fashion the statistics which have hitherto been presented by those who have studied it. It is not easy to understand his position. He evidently feels no difficulty in claiming for himself that he is a competent judge of statistical validity while he denies to all others but highly qualified statisticians similar ability. With Mr. SHAW's desire that absolutely sound statistical methods should be employed in determining whether vaccination protects against small-pox we are entirely in sympathy; but with his view that he is a competent critic of the methods which have been used we equally disagree. We presume that he does not claim for himself that specialised statistical knowledge which he deems to be necessary, but if he does, it is obvious that he has not studied the abundant statistical evidence which exists and which proves conclusively the value of vaccination. No one with the least knowledge of this evidence could have written the sentence which we have quoted, for this evidence is of a sort altogether different from that which exists in respect of other diseases. The evidence is supplied by every epidemic of small-pox which prevails, and its effects upon two classes of persons living under circumstances which expose them to small-pox infection, the one the vaccinated class, the other the unvaccinated class. Comparison of the two classes may be made in respect of liability to attack, and among those who are attacked in respect of liability to death. The evidence is not limited to one town or to one country. It is a universal experience which is demonstrated in every community and every small-pox hospital at the times of epidemic.

The London School Board on Oct. 10th had before them figures based upon a comparison of the incidence of attack upon the vaccinated and the unvaccinated classes; and while Mr. GRAHAM WALLAS found reason for thinking that during the last 11 years in London small-pox had not manifested any greater tendency to attack the unvaccinated class Sir CHARLES ELLIOTT, using, he said, the same data, came to opposite conclusions. Mr. WALLAS, however, had assumed

that only 75 per cent. of the general population were vaccinated and he thought that this proportion was likely to be correct from the report as to the number of children who had escaped vaccination. It is here that he has fallen into error, for only in recent years has vaccination default been as large as stated, and continued default of this sort over a prolonged period would be required to justify Mr. WALLAS'S assumption. To apply the figures of the last few years to the population at all ages is a proceeding which Mr. SHAW would no doubt deplore. Sir CHARLES ELLIOTT was on safer ground. Referring to children only, and not to the population at all ages, he estimated the vaccinated proportion to be 70 per cent., and he allotted 348 cases of small-pox to the vaccinated and 899 cases to the unvaccinated, and further, dealing with deaths found that of 176 only two occurred "among properly vaccinated children and the remaining 174 among others." He does not appear to have stated the ages of the children to whom he was referring, but we may state generally that his figures will cause no surprise to those who are familiar with small-pox statistics.

We note, however, that Mr. WALLAS is not satisfied; nor, indeed, do we believe that if expert statisticians, satisfactory to Mr. SHAW, were to present to those who oppose vaccination the assurance of their satisfaction with the statistical evidence of its value that they would accept the assurance as deserving of their confidence. They would fulfil HAWTHORNE'S dictum. There are, however, large numbers of people who make no profession of knowledge of the subject; they follow, as indeed the greater number of us must follow in regard to much that concerns us in life, the teaching of others in whom they have confidence. It is here we would appeal to those who, as public men, can largely influence the action of this numerous class of the population. We ask them, before decrying vaccination in the public press or placing difficulties in the way of those whose duty it is to secure the protection of the public against small-pox, to be at pains to learn something of the subject with which they are dealing.

## Annotations.

"Ne quid nims."

### THE HOME OFFICE ARBITRATION ON LEAD POISONING.

IN accordance with the Factory Acts of 1891 and 1895 an arbitration is about to be held in regard to the desirability of imposing new rules in the china and earthenware manufactories. For many years now the danger of lead poisoning in this industry has been denounced and has been the subject of many investigations and reports. The manufacturers, however, object to the new rules and have appointed Mr. Fletcher Moulton, K.C., to represent them and to defend their interests before the arbitrators appointed by the Home Office. It is, of course, only fair that the employers should be able to state their views and to defend their interests, but it would not be fair if the other side of the question were not represented with equal ability and thoroughness. Here, however, a practical difficulty arises. The workpeople have equal right to state their case, but they have not equal means

of so doing. Arbitration is a very costly matter, and it is stated that the expenses of the solicitor for the workers will amount to about £250. It is true that Mr. W. S. Robson, K.C., has offered his services gratuitously if he is able to leave London at the time; but in the event of his absence a junior must be employed who must be a chemical expert. All this means money, which the manufacturers can easily afford, but which the workers do not possess. The trade unions concerned are only able to give £85, and some philanthropic persons who take an interest in labour and public health questions have subscribed further sums through the agency of the Women's Trades Union League, an organisation which has largely helped to awaken the attention of the House of Commons and of the public generally to the numerous cases of lead poisoning in the Potteries; but more help is wanted and we would point out that this is a question in which the public at large are interested as well as the workers engaged in this industry. The unscientific use of lead in the composition of glaze for enamelled saucepans and dishes used in cooking and in the storing of food has produced several accidents. The fat and acidity of food dissolve some of the lead in the glaze and thus there occur cases of plumbism in households that have no connexion with trades in which lead is employed. Therefore it is necessary that the umpire and arbitrator should have the case put fairly before them, and the attainment of the end in view must not be prevented by the fact that one side is better able to afford the expense of arbitration than is the other side.

### "THE CREATOR OF THE CELLULAR PATHOLOGY."

UNDER this heading Professor Hugo Ribbert of Marburg gives in the opening article of the *Deutsche Medicinische Wochenschrift* of Oct. 10th a summary of the development of the cellular pathology and of its position at the present day. The article is one of a series evoked by the occasion of Virchow's eightieth birthday which has been so enthusiastically celebrated in Germany. The study of the localisation of disease first took practical shape with Morgagni, whose great work, "*De Sedibus et Causis Morborum*," was published in 1761. It is owing to Virchow that the seats of disease are no longer localised in organs, as was done by Morgagni, but that the inquiry has been carried from organs to tissues and from tissues to cells. He originally held the view advanced by Schwann, that every cell was a new formation produced from an albuminous solution by a kind of crystallisation process; his opinions, however, gradually altered and in 1855 he taught that cells were formed only from pre-existing cells (*omnis cellula e cellula*), a doctrine which was the leading feature of his classical treatise "*Die Zellulärpathologie*," published in 1858. Virchow's discovery of the cells of the connective tissue formed the basis of his studies on parenchymatous inflammation in which the cells were first shown by him to be the seat of the disease. All subsequent investigations have been founded on these results, to-day no less than at the time of their first announcement, although in the course of time opinions may have undergone a change in some particulars. The knowledge of the importance of cellular changes in the explanation of morbid phenomena was only arrived at by degrees, and there are morbid conditions, such as nervous diseases, hysteria, and neurasthenia, to which even at the present time the doctrines of cellular pathology seem to be inapplicable. This, however, cannot be regarded as a failure of the theory, for it may be confidently expected that these symptoms will ultimately be traced to anomalies of the nerve cells, the pathological histology of which is only in the initial stage. If it is said that pyrexia cannot be explained according to the principles of cellular pathology it

may be replied that high temperatures and disorders of the heat-regulating faculty are probably dependent upon morbid conditions of certain cell groups of the central nervous system. Objections to the cellular pathology have for a long time been drawn from the phenomena presented by infectious diseases. But the exciting causes of infectious processes are only dangerous from the changes which they produce in the cells of the body, either directly or else indirectly by means of their toxins. Virchow himself has called special attention to the fact that in infection there is a struggle between cells and bacteria. Another view has been put forward to the effect that in infections changes occur in the blood, or, to be more precise, in its fluid constituents, which would be a return to the humoral pathology. But although the toxins actually produce certain changes in the substances contained in the blood in a state of solution, illness, nevertheless, is not manifested until the cells in some part or other have been affected. It is at present the almost universal belief that the bactericidal and antitoxic substances formed in the blood are produced through the instrumentality of cells. The cellular pathology is undoubtedly a well-established principle, and its illustrious originator has the satisfaction of knowing that for half a century it has been a reliable guide in many fields of medical inquiry.

#### "LOOKING BACK."

We have often commented upon the fact that the tendency nowadays amongst chemists engaged upon research is to become engrossed with the chemistry of the carbon compounds, probably because the materials are so abundant as to enable a never-ending list of new synthetic and very complex substances to be built up. This fascination has been very detrimental to the development of simpler chemistry, such as the chemistry of the inorganic elements. The ordinary facts of inorganic chemistry are accepted, but it often happens that in the light of modern inquiry the changes or actions or phenomena concerned are not so simple as was at first supposed. An excellent illustration of this will be seen in our "Looking Back" column to-day. As may there be found M. Döbereiner discovered the fact in 1823 that finely divided platinum possesses the power of determining the union of gases, but to this day the nature of the action is not precisely understood. All we know is that when a jet of hydrogen or other combustible gas is allowed to impinge upon finely divided platinum or platinum black in the presence of oxygen union of the gases results with such manifestation of heat that the platinum soon gets red hot. An apparatus generating hydrogen and provided with a cage of platinum was subsequently designed and known as the Döbereiner lamp. The principle has been applied, but with limited success, to the self-lighting of gas flames, obviating the use of matches or other means of igniting gas. We believe that the principle has been applied in connexion with the Welsbach light in particular. After a time, however, the platinum loses its property, perhaps by becoming damp or more probably by the effect of the destructive sulphur compounds in the coal-gas on the platinum. But the effect, as we now know, is not confined to platinum; other metals, such as palladium and gold, and even stones and glass according to Professor Tilden, exhibit the same property, although in a far lower degree, since they often require to be aided by a little heat. The explanation of the phenomenon is given by supposing that solid bodies in general have to a greater or less extent the property of condensing gases upon their surfaces and that this faculty is exhibited pre-eminently by certain of the non-oxidisable metals, such as platinum and gold. Why they possess this property we do not know. A warmed coil of platinum wire suspended over the wick of a spirit-lamp

will ultimately glow and amongst the products of partial combustion of the spirit is formaldehyde, one of the most powerful of modern antiseptics. Similarly a coil of platinum wire will glow in ether vapour, an irritating and incomplete product of combustion ensuing. As we have said, the exact nature of this interesting discovery recorded in our columns exactly 78 years ago is yet but ill understood and therefore it still leaves, in the words of this classic paragraph, "a new field for physical and chemical researches." It is interesting to add that it was six years after this discovery that Döbereiner pointed out that when families of closely-allied elements are examined they are commonly found to consist of three members. For example, in the case of chlorine, bromine, and iodine, or sulphur, selenium, and tellurium, or lithium, sodium, and potassium, the values of the atomic weights are so related that the middle term of the series is nearly the arithmetical mean of the two other terms. Thus the atomic weight of lithium is seven and that of potassium 39, and the mean of these figures is 23, the atomic weight of sodium. These observations were the foundation of the famous periodic law.

#### PSYCHICAL TROUBLES DUE TO A TUMOUR OF THE FRONTAL LOBE OF THE BRAIN.

In the *Revue Neurologique* of Sept. 15th Dr. Raymond Cestan and Dr. Paul Lejonne record an interesting case of a tumour involving the frontal lobe and attended with peculiar psychical disturbances. The frontal lobe has been hitherto regarded as a "silent" area of the brain in its anterior half—i.e., in the part in front of the Rolandic gyri—but the recent observations of Flechsig, von Bruns, and Höninger have cast doubt on that supposition. The following case throws some light on this obscure question. A woman, aged 33 years, was admitted into the Salpêtrière in August, 1900, suffering from right hemiplegia, complete blindness, and mental disturbance. She was free from neuropathic heredity, sober in habits, and free from syphilis and from convulsions during childhood. In October, 1899, she suffered from a violent frontal headache, persisting day and night, and of a gnawing character. Almost at the same time she developed epileptiform attacks with temporary loss of speech but without loss of consciousness. The symptoms became worse, she had attacks of vomiting, and gradually the fits tended to become generalised. In the beginning of 1900 she had a remission of these troubles, but optic neuritis accompanied by gradual failure of vision now succeeded, and in May, 1900, she was completely blind. The attacks of vomiting and the headaches had now quite disappeared. A third stage now followed as regards her disease, characterised by motor phenomena and intellectual disturbances. The motor symptoms consisted of a permanent right-sided hemiplegia and convulsions. Cutaneous sensibility was apparently normal and the stereognostic sense was unimpaired, though it was difficult to be certain on these points owing to the intellectual disorder present. The hemiplegia grew more marked, contraction of the right arm followed, and finally the sign of extension of the great toe on plantar stimulation (Babinski's reflex) made its appearance. She had on an average four or five slight epileptiform attacks and one violent seizure per month, but without loss of consciousness. The mental symptoms which appeared at the onset of her illness were a slight degree of intellectual apathy and torpor, which was probably associated with cerebral compression and which has been frequently observed in cranial neoplasms. But in May, 1900, a different mental condition appeared. She passed into a state of high spirits (euphoria), looking happy and smiling when spoken to, complaining no longer, and showing signs of good spirits and good appetite. Her intelligence, however, seemed a little blunted, and she laughed at almost

everything which was said to her. There were no hallucinations of sight or of hearing, no melancholic depression or maniacal excitement, and no moral perversion. She sat still most of the day, smiling and looking happy, exhibiting, however, little initiative or volition of her own (aboulia). Her memory for recent occurrences was not good; they did not seem to be properly retained in her memory as it now existed, and she failed to show the least recollection of what friends and relatives who now visited her had said to her. Her natural affection to them also seemed to be lost or replaced by indifference. Her habits were neat and clean and she was free from dementia. In April, 1901, a somnolent state succeeded the condition of euphoria, coma supervened, and she died in June. The necropsy revealed a large cystic tumour of the left frontal lobe of the size of an orange, filled with serous fluid and involving the posterior two-thirds of the prefrontal lobe and compressing the Rolandic area.

#### MISLEADING NAMES FOR GENERAL AND LOCAL ANÆSTHETICS.

It has been generally recognised that a great danger arises when powerful drugs are sold under factitious names, such names being not in fact the chemical designation of the poison contained in the compound. Of late this danger has been rendered greater by the introduction into the market of various substances of a most powerful and even lethal character which are vaunted as general or local anæsthetics under what are at best mere fancy names. In a recently issued French work we found several of such substances named, and there lies before us a catalogue of dental appliances in which are advertisements of other anæsthetics cloaked under registered names. As all such substances are puffed as being quite safe and in all respects ideal anæsthetics we think it time to put our readers upon their guard. It has been a mournful repetition of history that every anæsthetic has burst upon the horizon of practice as an "absolutely safe" body, only as time wore on to fall into the sphere of "dangerous" unless used with knowledge and skill. When we work with known substances, the physiological actions of which are recognised, we possess at least safe-guiding principles upon which to base our practice, but when we undertake to anæsthetise with a fancy nostrum we run a grave risk of summoning not Sleep but her twin sister, Death.

#### THE DUTIES OF A PUBLIC VACCINATOR.

A SUMMONS was applied for a few days ago at Marlborough-street Police-court for an alleged assault of a somewhat unusual nature. The advocate who made the application stated that a public vaccinator had visited a house and in the absence of the parents vaccinated two unvaccinated children whom he found there. The essence of the supposed offence was contained in the assertion that one of the children, aged 13 years, had protested that her parents and she herself objected to vaccination. Mr. Denman refused to grant a summons, pointing out that the children were liable to be vaccinated and the parents to be prosecuted in default, while if all that was alleged was proved there would only have been a mistake in duty committed without criminal intent. His decision clearly embodied sound sense and good law, for it is preposterous to suppose that the public vaccinator laid forcible hands upon a girl of 13 years of age and compelled her to undergo vaccination or that he terrified her into submission, and unless there was a likelihood of conditions such as these being proved it would have been waste of time to grant a summons. At the same time, we may congratulate the public vaccinator on having avoided a tedious and irritating ordeal. Not all magistrates have the strength of Mr. Denman, and excess of zeal may

place a public vaccinator who has erred from such a cause in an awkward predicament. Therefore it is advisable for those connected with the enforcement of the law rigidly to confine themselves to the duties which it imposes upon them. If the legislature does not sufficiently protect the unwise from small-pox, and if the unwise are unwilling to protect themselves and their offspring, no one is called upon to expose himself to the expense and worry of criminal proceedings in the fulfilment of what is at best a thankless task. We should mention that Dr. Purdie, in a letter which appears in the *Daily News* of Oct. 16th, states that the children in question never said or did anything to lead him to believe that their parents did not wish them to be vaccinated.

#### SMALL-POX IN LONDON.

DURING Tuesday, Oct. 15th, 10 fresh cases of small-pox were admitted to the hospitals of the Metropolitan Asylums Board, and during Wednesday, Oct. 16th, there were four fresh cases. At an inquest held on Oct. 15th into the circumstances attending the death of Annie Bowen, aged 12 years, the daughter of a coal-porter residing in Limehouse, some remarkable facts came to light. The mother, in giving evidence, said that the child came home on Oct. 10th from the Roman Catholic School in Copenhagen-place complaining of headache. On Oct. 13th she was seen to have a number of black and blue spots on her body. None of the witness's children had ever been vaccinated, neither had they been registered. Mr. Samuel Robert Dudley said that death was due to small-pox. He had seen five other of Mrs. Bowen's children, all of whom were suffering from small-pox. He informed the medical officer of health and within one hour all the children were removed. The eldest boy, whom he had also seen, would not await the visit of the medical officer of health. The jury, in returning a verdict of "Death from small-pox," commended Mr. Dudley for his promptness. It now remains for the fugitive boy to be caught. It was stated that he worked at a coal-merchant's and we trust that the merchant in question will insist upon his staff either being all vaccinated or leaving. The managers of the school should also give every facility for their scholars to be inspected; and this simple precaution, as the school is not a board school, will probably be carried out.

#### BERI-BERI AND ARSENICAL POISONING.

ABOUT a year ago, when the existence of an epidemic of peripheral neuritis in the North of England was discovered and the cause was ascertained to be chronic poisoning by arsenic in beer, Major Ronald Ross, who had seen several of the cases at Chester Infirmary, laid stress upon their marked similarity to tropical beri-beri, and at the recent meeting of the British Medical Association he again brought the possible relationship between beri-beri and arsenic to notice. If, as may be presumed, this question has since been locally investigated in regions where beri-beri is common, it would be interesting to know what positive or negative results have been obtained. Meanwhile, there is at least one suggestive case on record, that communicated by Major Ross and Dr. E. S. Reynolds to the *British Medical Journal* of Oct. 5th last. Here the patient, a Scottish lady and wife of a missionary, when living on the West Coast of Africa was attacked by peripheral neuritis, the symptoms of which were indistinguishable from beri-beri of the "paralytic" type. She had none of those symptoms unmistakably indicative of arsenic which characterised some of the later cases during the Manchester epidemic. While still suffering from the disease she returned to England and was admitted to the Royal Southern Hospital, Liverpool. Her hair was then examined by Dr. Dixon Mann who found in it considerable

quantities of arsenic, proving, to use his words, "that a considerable quantity of arsenic had been taken into the system of the patient, either by administration as medicine"—of which there is no affirmative evidence—"or in some other way." In this country we meet with beri-beri only at rare intervals, almost exclusively at our ports and among sailors. In most instances the sufferers are Asiatics, but occasionally at certain ports—Falmouth, for example—sailing vessels put in after long ocean voyages during which one or more members of a European crew have been attacked. It is noteworthy that in these cases rice, which has been suspected for good reasons to be associated with the disease in the East, has formed no part of the diet of the sufferers. It is, of course, possible that the peripheral neuritis which is the chief characteristic of the malady of these European sailors may not be due to the same cause as tropical beri-beri. But, however this may be, the few facts known about the ship-borne cases which come to this country suggest that the illness is to be connected in some way or other with diet rather than with an infective process, and it is important that here also arsenic should be kept in mind as a possible cause. We understand that the Royal Commission on Arsenical Poisoning last month invited the coöperation of the medical officers of health of certain selected ports in investigating the subject when opportunity offers, and this inquiry, together with the investigations which Dr. H. E. Durham and others are about to make on behalf of the London School of Tropical Medicine into endemic beri-beri on Christmas Island and elsewhere in the Pacific, may be expected at no distant date to throw some light upon this very interesting question.

#### RICH HEADS AND POOR DINNERS.

IN a passage of his "Confessions" descanting upon the nature of drunkenness De Quincey concludes that the exact condition indicated is a question of accuracy in terms. He was assured on medical authority that a man could be, and had been, drunk upon a beef-steak. This is largely true, for even solid food may produce at any rate great mental torpor. The comfort of a good dinner may have suggested a writer's theme, we doubt whether it ever promptly stirred his pen. It is the empty stomach that best suits a full head and ideas that flow out freely before retire with the entry of a substantial repast. Oliver Wendell Holmes, with that charming blend of wit and scientific knowledge that gave the distinction to his writings, has discoursed upon this very point. He talks of the "bulbous-headed fellows steaming as they write" and shows how to meet the demands of thought and imagination. The brain must have more than its share of the circulating blood. There must be no rival in the full liver or the actively digesting glands of the gastric mucous membrane. Do not eat heavily, then, if you are soon to think hard. Either your ideas or your dinner will be neglected and lie a sorry weight upon your head or your epigastrium. The poor half-starving poet is familiar to everyone. We may mitigate our pity by reflecting that in many cases he would have been no poet if he had not starved. Enough fuel to sustain the fire of life is necessary for work, but heap on the coal and you will deaden the overburdened flame. The great thinkers, the great workers in any direction but a purely physical one, have for the most part been abstemious men. If not naturally of small appetite they have exercised constant restraint, grudging from the play of higher functions every moment and every energy spent upon the animal activities of their nature. Habit soon helps the fine effort of such people, and it becomes natural for them to eat less, to drink less, and to sleep less than their fellows. Thus, in a long life of intellectual activity many scores of hours are utilised for the main purpose

which in the case of other men are squandered upon the dinner-table or in the mere nothingness of sleep or idling. Carlyle was justified in declaring a capacity for work to be the essence of genius. Whatever great man's life is read, no matter how brilliant his natural gifts, sooner or later he is found to have worked with unswerving constancy and imperturbable devotion. Others as gifted have left no mark; it was in the will and the power to work that the genius asserted itself. It is common to hear a man say, "So-and-so is a genius, if he worked he could do anything." Just because he does not work "So-and-so" must be denied the title. In the natural sciences, and professions such as medicine that depend upon them, the inevitableness of great work for great achievement is, perhaps, more obvious than in the service of art and literature. The artist and the writer of genius are gifted with inspirations falling to no man of mere talent, however hard he works. Yet even so the genius works to illustrate his inspiration, whether it is Raphael at his easel or Shakespeare at his desk, with a kind of frenzy of application and a continuous determination that are impossible to men not so endowed. Such labours of the will and of the brain demand at the time the whole energies of a human being. No lower member of the confederated body which is man must seek employment while the master parts are thus at work. So it is, then, that the little-eating worker blesses the world with fruits which the voluptuary and the *gourmet* may possibly enjoy at his well-fed ease, but can never hope in the least degree to emulate.

#### CHOLERA IN JAPAN.

VARIOUS epidemics attended with a great mortality are recorded in the Japanese annals, but no satisfactory data exist for the identification of the diseases concerned. In 1890 a committee was appointed by the Central Board of Health, Department for Home Affairs of the Imperial Japanese Government, to consider questions relating to the inspection of shipping and the sanitation of the ports open to foreign traders. The subject obviously involved a reference to previous experience of outbreaks of disease in Japanese seaports, and the committee arrived at the conclusion that the first positive knowledge of the prevalence of Asiatic cholera in Japan was in 1822. The second epidemic outbreak, according to Japanese accounts, was from 1858 to 1860; the third from 1877 to 1879; the fourth in 1881 and 1882; the fifth in 1885 and 1886; and the sixth in 1890 and 1891. The seventh and last epidemic, which continued from the beginning of 1895 to 1896, was undoubtedly a result of the war between Japan and China, and supplied material for an interesting report written by Dr. William F. Arnold of the United States Navy, at that time serving on the China and Japan station. This narrative was published in the annual report of the Surgeon-General of the United States Navy for the year 1897, and has just been reprinted by the author who, after an absence of some years, is once more in Japan. Statistics of cholera in the Japanese empire since 1877 have been published. From these it appears that in 1894 there were 546 cases with 314 deaths; in 1895 there were 53,999 cases with 38,500 deaths; and in 1896 there were 350 cases with about 150 deaths. The Japanese forces engaged in China suffered severely from cholera at the end of 1894 and beginning of 1895, but on the whole the incidence of the disease in the Japanese army and navy has been slight. In the navy during 1895 only 93 cases were recorded. No pains have been spared by the Japanese authorities in the repression of the various recent epidemics and great efforts were made to secure the coöperation of the public in preventive measures. In 1890 lectures, popular publications, magic-lantern exhibitions, effective illustrations, and handbills

were freely employed and the police regulations requiring cooked food to be protected from the access of house flies were vigorously enforced. In the city of Hiroshima a microscope was on view in a temple, and it is said that the demonstration of the living organisms in water to housewives was much more impressive than lantern exhibitions. Dr. Arnold, writing in August, 1901, states that no cases of Asiatic cholera have been proved to have occurred in Japan since 1896, and acknowledges the assistance afforded to him in his inquiries by Dr. Isaac Nakagawa, professor of bacteriology in the medical school at Sendai, Japan.

#### THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Cape of Good Hope received at the Colonial Office on Oct. 9th states that during the week ending Oct. 5th in the Cape peninsula there were 2 cases of plague, both in natives, with 1 death. At Port Elizabeth there were 2 cases, both in Europeans, and 3 deaths, 1 of a Chinaman and 2 of natives. The area of infection remained unchanged. There were no military or naval cases. In Mauritius during the week ending Oct. 10th there were 65 cases with 47 deaths.

#### PNEUMOCOCCIC MEMBRANOUS INFLAMMATIONS OF MUCOUS MEMBRANES.

IN an annotation<sup>1</sup> we have recently called attention to the numerous affections which may be produced by the pneumococcus. The subject was very exhaustively discussed by Mr. Alexander G. R. Foulerton at the recent annual meeting of the British Medical Association.<sup>2</sup> But his admirable paper contains no allusion to membranous inflammations of mucous membranes of which the following case, published in the *American Journal of the Medical Sciences* for September by Dr. Charles Cary and Dr. Irving P. Lyon, is a remarkable example. A boy, aged 11 years, was taken ill with sore-throat on Jan. 5th, 1901. On Jan. 7th the throat was reddened and there were incipient signs of pneumonia at the base of the left lung. On Jan. 11th the right base was also affected and an abundant white exudation covered both tonsils. Next day herpes appeared on the lips and the exudation was more or less diffused throughout the mouth and throat. On Jan. 13th there were fibrinous conjunctivitis and subconjunctival hæmorrhage and the lids were swollen and adherent. The mucous membrane of the lips, gums, cheeks, margin and under surface of the tongue, hard and soft palate, fauces, tonsils, pharynx (as far as could be seen), and nose was covered with a continuous white exudation, which could be torn off in shreds, leaving a raw granular bleeding surface. The boy picked at his nose and lips and thus apparently transferred infection from one place to another. On Jan. 15th the glans penis showed the same membranous inflammation as the other parts. On Jan. 16th the anus was involved and membranous shreds were found in the stools. For several days there had been tympanites and the stools had been frequent and soft and had contained considerable mucus. Respiration was laboured from accumulation of mucus in the upper air passages. The sputum contained fibrinous casts of the finer bronchi with dendritic processes, a few red blood corpuscles, and numerous pneumococci. The organism, practically in pure culture, was also found in the exudation on the various mucous membranes. The diphtheria bacillus was absent. The membranes persisted for about four weeks in spite of antiseptic treatment. That the pneumococcus is capable of causing such membranous exudations is attested by various observers. Bristowe in 1879 mentioned that membranous patches on the mucous surface of the large intestine were

sometimes found in pneumonia. Osler, in 1885, reported five cases of "croupous colitis" in 100 necropsies on subjects who had died from pneumonia. In one case the cæcum was covered with a thin layer of adherent lymph and scattered throughout the colon and sigmoid flexure were numerous patches of lymph. Weichselbaum found the pneumococcus in the intestinal croupous exudation in a case of pneumonia. Rochon has described the case of a boy, aged two years, who during whooping-cough developed severe and continued diarrhoea with an eruption of vesicles about the anus. In the fluid of the vesicles the pneumococcus was found in pure culture. During coughing prolapsus recti occurred, revealing in places on the mucous membrane exudation which contained numerous pneumococci. Pneumonia and death followed. Wetter has reported the case of a boy, aged three years, in which during an attack of varicella tracheotomy was required for laryngitis. Membrane was expelled through the tube containing no diphtheria bacilli but pneumococci. Cases of pneumococcic membranous inflammation of the throat, conjunctiva, and nose simulating diphtheria and independent of pneumonia have been recorded. But in most of the cases of pneumococcic conjunctivitis the inflammation could hardly be called membranous, it was characterised by small fibrinous shreds which were sometimes lightly adherent to the mucous membrane. When it is remembered that the pneumococcus is *par excellence* the cause of fibrinous inflammation of the lungs the occurrence of the same process on other mucous membranes should not cause surprise.

#### FISH-CURING.

MOST people know in a general sort of way that herrings are migratory fishes, and that the shoals appear off the Hebrides and then travel in a southerly direction round the coast of Scotland and England. The date at which they first appear is not always exactly the same, but it does not differ to a much greater extent than that of the first appearance of the cuckoo in the south of England or the departure of the swallows from the eastern coasts. The shoals of herrings are followed by fleets of fishing-boats, some of which come from ports as far from the North Sea as Penzance in Cornwall and Brixham in Devonshire. The fishermen who man these boats are, however, not the only people whose movements depend on the migration of the herring. A great many women are similarly affected; they are to be numbered by thousands, and it is to the unnecessary hardships endured by these people that we wish to direct attention. The industry of fish-curing is performed in great part by a nomadic population consisting chiefly of strong and healthy young women, daughters of fisher folk, who go from the north towards the south and return home after their work is done. Some come from places as far north as Stornoway and Shetland. Fraserburgh and Peterhead are the centres of the fish-curing industry in July and August, Scarborough and Grimsby in September, and Yarmouth and Lowestoft in October. To give some idea of the number of people engaged in the work it may be said that as many as 3445 women have been engaged at one time at Fraserburgh, and of these no fewer than 3000 were "foreigners"—for amongst fishing people everyone not born in the place is a foreigner. The work which has to be done is cleaning, salting, and packing the fish for the continental markets. The sleeping accommodation provided for the women is not luxurious, but it is possibly better than many of them enjoy at home—and, according to an official report made by one of the factory inspectors, they live in a state of "marvellous harmony." In Yarmouth the curing trade is carried on in an open space which is undrained and the soil of which is therefore much polluted. Here the work is done in spite of

<sup>1</sup> Fatal Intestinal Hæmorrhage in Pneumonia, THE LANCET, August 17th, 1901, p. 460.

<sup>2</sup> THE LANCET, August 17th, 1901, p. 472.

wind and rain. The processes which precede the making of kippers—the pickling and splitting of the fish—are carried on under cover. The people engaged in the work are crowded, the rooms are often ill-lighted, the flooring is defective, and proper provision is not made for the removal of the refuse. This state of things is not one to be commended and the sanitary authorities of Yarmouth cannot be held to be entirely free from blame in this matter, especially as the land on which the open-air work is carried on belongs to the town, and therefore the civic authorities are the more easily able to make proper restrictions as to its use. It is to be hoped that in the future they will not neglect to carry out such an obvious duty. In France and in Belgium the factory laws insist that the walls and floors of rooms in which organic matter is treated shall be made of impermeable material, and, moreover, they provide for the immediate removal of organic refuse. It would be well if similar regulations existed in England. But in the absence of such a law there is the more reason why those who work at fish-curing should at least have the full measure of protection which is provided for them by the statutory provisions which are already in force in matters pertaining to the public health.

#### A MEDICAL REPORT ON UGANDA.

WE have received a copy of "A General Medical Report on Uganda" by Dr. R. U. Moffat, C.M.G., principal medical officer of the Uganda Protectorate, East Africa. The region included in the protectorate comprises a large tract of country the several parts of which differ entirely in their climatic conditions, varying from the cold and healthy altitudes of the Mau Escarpment to the hot and malarious shores of the Victoria Lake and Nile valley, so that in compiling a comprehensive report Dr. Moffat has found it necessary to take notice of these differences, and he has ably pointed out the main aspects of the various districts into which the country may roughly be divided from the point of view of health. This part of the report is very instructive, but a bare abstract would not be of value and we refer those of our readers who are interested in the matter to the original report. Dr. Moffat further points out that the report may be open to misconception owing to the fact that the Government medical officers at most stations have little to do with the aboriginal natives of the country. For this reason the records based on their work do not afford an entirely trustworthy index of the diseases peculiar to the country. In the great majority of cases the patients treated are alien to the country. Many diseases which, perhaps, are common among the aboriginal tribes may seldom or never occur among the well-fed and better-tended Government employés. On the other hand, these latter may bring with them the seeds of diseases contracted in their own country but which may not be endemic in the Uganda Protectorate. Malaria is endemic through the whole of the western provinces of the protectorate comprising the districts of the Lake level and the Nile valley. The types of fever commonly met with are the tropical quotidian and tertian, the latter more commonly among Europeans. The benign tertian and quartan forms are seldom met with. By far the most important and dangerous form of malaria is that complicated with hæmoglobinuria, the so-called "black-water fever." Dr. Moffat does not discuss whether this condition is indeed malaria or an entirely different disease—as he remarks, his report does not form a suitable occasion for such a discussion; he merely states that he has never seen any reason to connect it with the administration of quinine, and he recommends that in the treatment of the disease the drug should be given speedily and in large doses. Owing to the severe vomiting it is impossible to give quinine by the mouth and

therefore Dr. Moffat suggests that it should be given by intra-muscular injection and describes his method of so administering it. Many other diseases are considered, the most important of which are dysentery and yaws. With regard to the treatment of the latter, Dr. Moffat states that he has had excellent results from the internal administration of mercury. The report should prove very interesting to those who have experience in tropical diseases.

#### SALICYLIC ACID IN WINE.

THERE seems to be little doubt that salicylic acid is occasionally a natural constituent of genuine wine and this observation is of considerable importance in connexion with the preservation of wines by artificial means. In most foreign countries the addition of salicylic acid to wines is forbidden. The fact, therefore, that wines may normally contain the acid is calculated to lead to confusion and not impossibly an injustice might be done, by condemning a wine because it contained the acid which after all may prove to be a natural constituent. The amount of natural salicylic acid in wines is, however, small and no definite evidence of its presence is indicated until five or six ounces are operated upon for the test. It has accordingly been proposed that when seeking for salicylic acid in wine not more than a couple of ounces should be employed for the test. This recommendation has, as a matter of fact, been adopted in Germany. The quantity of salicylic acid in genuine wine is invariably so small that it is difficult to attach any special significance to it in regard to its effect either upon the wine or upon the person who consumes it.

#### BELLADONNA POISONING.

A CORRESPONDENT informs us of the details of a case of poisoning by belladonna brought about by the application of a belladonna plaster. A young lady had been indulging in the sport of duck-shooting and in so doing got very wet. An attack of lumbago followed. A practitioner was not sent for, but whisky was rubbed into the painful region. The pain continued for four days; then the back was rubbed with "Jacob's oil." This only produced a slight redness which disappeared in a few hours leaving the skin quite normal in appearance. On the fifth night a belladonna plaster was applied. The patient wished to go out duck-shooting on the following morning, but when her maid went to rouse her at four o'clock in the morning she was found to be suffering from the characteristic symptoms of belladonna poisoning; her throat and mouth were dry, there was a burning sensation in these parts, and she could scarcely speak, the pupils were widely dilated, and she "had lost the power of controlling her movements ..... and her hands felt as though they were getting smaller." Apparently she rapidly recovered. Several cases of this nature have been recorded. Dr. W. J. Howarth reported one case in THE LANCET of Jan. 27th, 1894, p. 204. A man began to feel that his mouth was dry three-quarters of an hour after putting a belladonna plaster, six inches by four, on his back; the pupils were widely dilated, and delirium of the characteristic type occurred. Idiosyncrasy towards belladonna is not uncommon and many adults are unable to tolerate a dose which a young child could take with impunity. The practitioner who attended the above case is reported to have said that if the patient had not been discovered to have been suffering from belladonna poisoning until four hours later it would "have been too late, in all probability, to save her." We are not aware that a fatal case of belladonna poisoning produced in this manner has ever been reported, and the symptoms have occurred when no previous applications to the back have been made. Our correspondent suggests that it should be made compulsory that a warning should be issued with every plaster sold that serious symptoms may arise in its application, especially if the skin has been abraded. We

think the suggestion a good one, although such cases are extremely rare. It would be still wiser, however, if a druggist was not permitted to sell such a plaster without a prescription from a qualified medical practitioner. It is worthy of note that the emplastrum belladonnæ of the new Pharmacopœia is much weaker than that of 1885. Our correspondent further asks whether a plaster of belladonna and opium would produce the poisonous effects of the former drug. Such a plaster is not official; it would depend in great measure upon the relative strengths of the two ingredients.

#### SOFT WATER AND SOAP.

It is commonly supposed that the use of soft water—rain-water, for example—for washing purposes economises soap. But while it is perfectly true that the lime salts in hard water nullify to some extent the soap by forming insoluble lime soaps, yet the expenditure of soap, at least in toilet purposes, will be found to be considerably less than when rain-water is used, while the cleansing effect is just as good. The explanation of this is that soap is so very readily soluble in soft water that considerably more soap is used than is necessary. Everybody knows the slippery feeling of rain-water in which the hands have been washed with soap, and no amount of rinsing would appear to remove the soapiness from the skin. In this case it is doubtful when soap is used whether, after all, rain-water or soft water is better for the complexion or skin than hard tap-water. It is certainly not so refreshing. In manufacturing processes or in the wash-tub it is true the use of soap in soft water is an economy. It is in this way, of course, that the addition of soda, throwing out the lime salt, saves soap. It has been estimated that if London were supplied with soft water the saving of soap would amount to tens of thousands of pounds per annum, and Glasgow is estimated to save £36,000 annually in the matter of soap since using Loch Katrine water. That may be so, but in the matter of personal washing there is a waste of soap produced rather than an economy by using soft water. The fact that a tablet of soap disappears much more quickly when rain-water is used instead of hard tap-water is proof of this assertion.

#### THE PATHOGENESIS OF DELIRIUM TREMENS.

DR. K. BONHÖFFER of Breslau, in a recent communication to the *Berliner Klinische Wochenschrift* (No. 32, 1901), deals with the pathogenesis of delirium tremens, based upon a study of 250 cases of the disease observed during three years. After referring to the conditions present in the disease—viz., acute hallucinatory mental confusion, transitory albuminuria, dirotism of the pulse, and in fatal cases intense cerebral hyperæmia, and even small hæmorrhages into the brain—he discusses the etiological factors of delirium tremens. Sudden withdrawal of alcohol is one of the factors and injuries (especially cranial injuries) are prone to develop the attack. The presence of epilepsy as a complication increases the liability to delirium tremens in alcoholic subjects. The most potent causes are, however, first, infectious diseases affecting the lungs and respiratory organs, and secondly, gastro-intestinal disorders. Jacobsohn in Denmark and Villiers in Belgium found that 17 or 18 per cent. of cases of delirium tremens were complicated with an acute disease. Tabulating the acute bodily diseases which thus complicate, or participate in the production of, delirium tremens Dr. Bonhöffer found that 20 per cent. were cases of pneumonia, while 23 per cent. included such disorders as acute bronchitis, pleurisy, pulmonary hæmorrhage of tuberculous origin, cellulitis (including erysipelas), paronychia or whitlow, and acute exanthemata; 11 per cent. comprised marked gastric disorder, diarrhoea, and hæmatemesis from cirrhosis of the liver; 10 per cent. were cases of traumatic nature; and 23 per cent.

were complicated with epilepsy. The remaining acute disorders provocative of delirium tremens were rare and amounted altogether to 8 per cent. As regards the pathogenesis of the disease Dr. Bonhöffer inclines to the view that it is of a toxic nature, the clinical form being usually that of acute hallucinatory mental confusion. He also recognises distinct pathological changes in the nerve-cells of the cerebral cortex in fatal cases of delirium tremens, such as chromatolysis, pigmentary degeneration, and vacuolation of the cells, intense capillary hyperæmia of the cortex with minute hæmorrhages into the grey substance, and a hyperplasia of the neuroglia cells, as described by him in a recent publication.<sup>1</sup> The clinical varieties of delirium tremens noted by him are the same as those observed by Evenson, to which reference has already been made in these columns.<sup>2</sup>

#### CLINICAL THERMOMETERS AND THE CASUAL GERM.

A CORRESPONDENT has addressed us upon ground that medical men are careless in cleansing their clinical thermometers. Thus, he says, they support the "Christian Science" doctrine, which seems to us to pertain somewhat to the nature of a "bull," "that there are no germs, but doctors bring them." Now we should be sorry to believe that this patient's experience is at all a common one. Often, he declares, "the thermometer has been stuck in my mouth and dropped back into the case again without a wipe or a wash." Anyone, he very reasonably adds, prefers to see the thermometer washed before and after use. This is no doubt the general practice; there can, of course, be no excuse in any amount of hurry for not at any rate placing the thermometer in water after use and wiping it dry before returning it to its case. Elaborate cleansing is not necessary, nor do we need what our correspondent appears to hanker after, any attempt at sterilisation. The clinical thermometer is not an object that carries gross dirt easily, and therefore water and a clean towel after being used suffice to keep it in decent condition. As regards microbic accompaniment, we may allay our correspondent's fears by assuring him that any thermometer treated as we suggest will not add materially to the microbes that already swarm within his mouth. He is probably in blissful ignorance of the saprophytic condition of his own mucous membrane, and the comparative purity of a glass thermometer. Indeed, he is far more likely to give than to receive in this instance, and if a previous patient also conferred bacterial gifts upon the thermometer these are unlikely to have survived the intervening period between the two occasions when it was used. However, we perfectly sympathise with his protest, considering his unpleasant, and, we trust, unique, experience. After pleading for cleanliness our correspondent concludes with the Jane-Austenian observation that "safety and sensibility alike demand it." We can assure him that the medical profession have no "Pride and Prejudice" in a contrary opinion. It may also allay his apprehension to remember that not infrequently medical men place the thermometer in the axilla rather than in the mouth, although we believe this to be on the whole a less trustworthy position for recording the body temperature, as the instrument is there affected by conditions of perspiration, want of accurate contact, and possibly clothing.

WE understand that the Secretary of State for India has sanctioned an increase of 26 officers to the Indian Medical Service. This will help to get over the difficulty about leave.

THE autumn dinner of the Edinburgh University Club, London, will be held on Wednesday, Nov. 13th, at the Criterion Restaurant. Professor John Chiene, C.B., M.D., F.R.C.S. Edin., will take the chair.

<sup>1</sup> Monatschrift für Psychiatric und Neurologie, 1899.

<sup>2</sup> THE LANCET, Sept. 16th, 1899, p. 795.

## PROFESSOR VIRCHOW'S EIGHTIETH BIRTHDAY.

PROFESSOR VIRCHOW was born on Oct. 13th, 1821, at Schievelbein, a village in Pomerania. In 1891 his seventieth birthday was celebrated with much enthusiasm in Berlin, and now that he has reached the advanced age of 80 years in the enjoyment of great mental vigour and an amount of bodily energy unusual at his time of life, the anniversary has been attended by manifestations which in their spontaneity and warmth leave no doubt as to the place which he holds in the hearts of his countrymen. Oct. 13th, 1901, was a Sunday. The celebrations began on the previous day with a reception in the new Pathological Institute in Berlin, where the company included the Minister of Education, Herr Studt; the Chief of the Imperial Chancellery, representing Count von Bülow; Baron von Richthofen, the Foreign Secretary; Count Posadowsky, the Secretary of State for the Interior; Herr Möller, the Prussian Minister of Commerce; Herr von Thielen, the Minister of Communications; Dr. von Leuthold, the General Staff Surgeon of the Army; Herr Kirschner, the Chief Burgomaster of Berlin; Dr. Langerhans, the President of the Berlin Municipal Council; and very many representatives of German and foreign medical science. The Minister of Education, Dr. STUDT, said that the name of Virchow would be for ever associated with the Pathological Institute, but in order that future generations might possess a likeness of its founder he, on behalf of the Ministry of Education, presented the institute with a marble bust of him. Professor VIRCHOW expressed his thanks in cordial terms, and then proceeded to deliver an address on the Development of Pathology and the special objects of the institution in which they were assembled. In conclusion, he claimed for pathology a place among the biological sciences. Various micro-organisms were then shown under microscopes and as lantern slides by Professor Koch and others. At 6 P.M. Professor Virchow was entertained at a banquet held in one of the halls of the buildings where the Prussian Diet meets. The company included his wife and several other members of his family, eminent German and foreign men of science, and representatives of the Government. Count POSADOWSKY, the Imperial Home Secretary, proposed the health of the German Emperor. Dr. KOERTE proposed the health of Professor Virchow, and Dr. ALTHOFF of the Ministry of Education presented him with his portrait showing him at the age of seven years as well as with one of his school certificates. The chief event of the celebration commenced at 8 P.M. in the buildings used by the Prussian Chamber of Deputies and was not concluded till long after midnight. This was the presentation of addresses by German and foreign delegations. Professor WALDEYER, who presided and delivered an eloquent address, said that a sum of 50,000 marks (£2500) had been collected for the purposes of the "Virchow Fund" for the promotion of scientific research. Dr. STUDT, the Prussian Minister of Education, then read a letter from the German Emperor to Professor Virchow, warmly congratulating him on the anniversary of his birthday, and eulogising the great services which he had rendered not only to the scientific side of medicine but to its practical application for the benefit of mankind. In conclusion, the Emperor wrote that in recognition of his distinguished labours he had that day conferred on him the Grand Gold Medal for Science and now sent it to him. The Imperial Chancellor, Count von Bülow, also sent a letter of congratulation. The address of the municipality of Berlin was presented by the Chairman of the Municipal Council, Dr. LANGERHANS, who announced that the city had contributed 100,000 marks (£5000) to the "Virchow Fund." The foreign delegates included representatives of medical science from Great Britain, France, Russia, Italy, Austria, and other countries. Great Britain was represented by Lord Lister, who wore the Prussian Order *Pour le Mérite*; Sir Felix Semon (Royal College of Physicians of London); Mr. Howard Marsh (Royal College of Surgeons of England); Dr. Rose Bradford (Royal Medical and Chirurgical Society and Pathological Society of London); Mr. Watson Cheyne (Pathological Society of London); Professor Robert Muir

(University of Glasgow); and Dr. Graham Brown (Royal College of Physicians of Edinburgh).

Lord LISTER, who spoke in English, and was welcomed with hearty applause, said:—

Revered master, I am here as a delegate of the Royal Society of London, of which you are an honoured member, and on behalf of which I have to present to you a loyal address. I have been also requested to hand you addresses from six other societies which greatly regret that it has been impossible for them to send special delegates. They are as follows: (1) the Anthropological Section of the British Association for the Advancement of Science; (2) the University of London; (3) the University of Edinburgh; (4) the Faculty of Physicians and Surgeons of Glasgow; (5) the Medical and Chirurgical Society of Edinburgh; (6) the Royal Academy of Medicine of Ireland. All these bodies join in the recognition of your gigantic intellectual powers, in gratitude for the great benefits that you have conferred upon humanity, and in admiration of your personal character, your absolute uprightness, the courage which has enabled you always to advocate what you believed to be the cause of truth, liberty, and justice, and the genial nature which has won for you the love of all who know you. The astonishing vigour which you displayed in the address to which we listened to-day justifies the hope that, when many of us your juniors shall have been removed from this scene of labour, it may be granted to you to celebrate your ninetieth birthday not only in health and honour but in continued activity in the service of mankind.

Sir FELIX SEMON, who spoke in German, said:—

There are two reasons why I have been selected, dear master, to convey to you the sincere congratulations of the Royal College of Physicians of London. In the first place, the authorities thought it might be agreeable to you if the good wishes of the College were expressed by an old pupil who when he sat at your feet 30 years ago as a young German student did not suppose that he would one day have the honour of representing the venerable College in whose name he now speaks. In the second place, the College selected a native of Germany as its spokesman from a desire to give prominence to the fraternal feeling which has so long existed between German and British scientific men and to express thereby their cordial recognition of the beneficial influence which you have exercised upon science in Great Britain no less than in Germany.

His Excellency Dr. GUIDO BACCELLI, Minister of Agriculture in the Government of Italy, spoke in Latin as follows:—

*Quod reipublicae medicae per orbem bene vertat, et faustum Germaniae felixque sit, tibi, Rodulpho Virchow! hodie, Berolini in novissimo propemodum Scientiarum omnium Capitolio, supremi tribuuntur honores. Immortali igitur lauro, fronte tua redimita, neque splendidiore humanae iustitiae, neque jucundior nobis fulsit unquam dies. Quapropter in tanto doctissimorum virorum tibi plaudentium atque gratulantium Senatu, et ego plaudens atque gratulans, quae per te Italia sentit, promere jubeor.*

*Primum tibi Victorii Emanuelis tertii, amatissimi Regis nostri, nomine loquor, qui fortibus et bonis natus praestanti juventute florens, omnigenae virtutis fulgore, undecumque nitent, trahitur saepe natura. Deinde Ministrorum Regis Consilii nomine in quo praescriptum et qui medicinam politicam hodie feliciter tuetur; et qui studiis italicis ingenio singulari praestat, volunt singulariter memorari.*

*At supereminens omnes, Joseph Zanardelli, libertatis in legem assertor invictus, Consilii Praesul, tibi gloriosissimo affert sua vota per me. Et bene est: tu enim cunctis mirificam intulisti laetitiam, octagesimum annum natus, studiis laboribusque nunquam fractus.*

*Quam vero doctrinam disciplinamque Anatonae pathologicae Joannes Baptista Morgagnius, felici ausu, primus in Italia instituit ac tradidit, tu singulari sapientia in Germania tua perfecisti, eoque egisti ut Magistorum Magister jure voceris. Hoc Itali picturae traditum volvere et ego hexametrum supra tabulam scripsi:*

*"Ut quos corda fovent, praesentes lumina spectent."*

*Io, igitur, triumphe, Rodulpho Virchow! Nestores vive per annos, incolumis florens, terque quaterque beatus. Vive, patriae tuae decus et lumen; vive, humani generis praesidium, vive nationum omnium admiratio, vive Italiae amor, vive immortalis!*

### TRANSLATION.

For the prosperity of the Republic of Medicine throughout the world and for the best interests of Germany the highest honours are vouchsafed to thee, Rudolf Virchow, to-day in Berlin, where Science, in well-nigh all her branches, holds her latest seat. No day has ever shone with purer lustre for the cause of humanity, or with livelier pleasure for ourselves than this, which sees thy brow enwreathed with undying laurel. So amid the plaudits and congratulations of this august concourse of the learned, I too join in applause and congratulations, conveying, on the mandate of Italy, the sentiments she entertains towards thee.

I speak first in the name of our well-beloved King Victor Emmanuel the Third who, sprung from brave and honourable ancestors, with the dew of his youth yet upon him, and radiant with the lustre of every manly virtue, is drawn to thee by his own august nature. Next in the name of His Majesty's Ministers, among whom, in particular, the Minister who happily presides over State Medicine, and his colleague who with rare skill superintends Italian Education, desire to be individually commended to thee.

But, above all, His Excellency Joseph Zanardelli, the indomitable vindicator of "Liberty within the Law," the Prime Minister of Italy, conveys to thee his cordial good wishes through me. Appropriately so; for in thy eightieth year, with strength unimpaired by studious research and by energetic action, thou inspirest us all with equal wonder and delight.

In truth the theory and practice of pathological anatomy, first in Italy imparted and diffused with happy initiative by John Baptist Morgagni, has by thee, in thy native Germany, been carried to such rare perfection that thou hast justly earned the title of Master of Masters. This achievement Italy desires to commemorate by the painter's art and I, on the picture, have ventured to inscribe the hexameter—"that the eye may behold him as present whom the heart cherishes."

So then, "Io Triumphe!" Rudolf Virchow. Live, through the years of a Nestor, in health and energy, thrice, aye four times, happy. Live, as thy country's ornament and light; live, as a safeguard of humanity; live in the admiration of all nationalities; live in the imperishable love of Italy!

The following telegram, also in Latin, has been sent to Professor Virchow by the president and vice-president of the Federal Council of the Medico-Chirurgical Orders of Italy:—

Prof. Rodolfo Virchow, Berlino.  
Durante, Bastianelli, Sciamanna, Spaziani, Topai, Praesides foederati consilii Italicorum medicorum ordinum, plaudentes, tibi, pathologorum principi, salutem dicunt, eo temporis momento, quo omnes orbis terrarum medicinae cultores suam quisque admirationem verbis effingunt—voti expetentes ut altiora tua studia magis magisque efficacis artis medicae officium sint redditura.

Dabant Roma a. d. IV Idus Octobres A. P. Chr. n. MDCCCXI.  
12. X. 901.

[TRANSLATION.]

To Professor Virchow, Berlin.  
Durante, Bastianelli, Sciamanna, Spaziani, Topai, presidents and vice-presidents of the Federal Council of the medico-chirurgical orders of Italy, salute and applaud thee, prince of pathologists, on this day when all the votaries of the healing art throughout the civilised globe convey to thee in words their admiration of thee collectively and individually, in the hope and desire that thy researches, prosecuted with ever greater profundity, may render the function of medicine yet more and more effective.

Rome, Oct. 12th, MDCCCXI.

On the evening of Sunday, Oct. 13th, Professor Virchow was present at a birthday dinner in the Palace Hotel, Lord Lister and Sir Felix Semon being among the guests. In the Schellingstrasse, where his residence is, the houses were illuminated in his honour.

## THE NEW PATHOLOGICAL LABORATORIES AT THE UNIVERSITY OF OXFORD.

ON Oct. 12th, an appropriate date, being the birthday celebration of Professor Virchow, the new pathological laboratories of the University of Oxford were opened. Among those present were the Vice-Chancellor of the University, Mr. D. B. Monro. Provost of Oriel (who presided), Sir William Church, Bart. (President of the Royal College of Physicians of London), Sir J. Burdon Sanderson, Bart. (Regius Professor of Medicine), the Warden of All Souls, the Dean of Christ Church, the Rector of Lincoln, the Master of Pembroke, the Provost of Queen's, the Principal of Brasenose, the President of Magdalen, the Warden of Keble, Dr. G. Sims Woodhead (professor of pathology in the University of Cambridge), Mr. W. Bruce Clarke, Dr. F. H. Champneys, Dr. J. F. Payne, Professor Arthur Thomson, Professor E. B. Poulton, Professor W. Odling, Professor W. Esson, Professor J. McFadyean (Royal College of Veterinary Surgeons), Dr. H. D. Rolleston (St. George's Hospital), Mr. Horatio Symonds, Dr. James Ritchie (reader in pathology), the Senior and Junior Proctors, Professor Wright, Professor E. J. McWeeny (Dublin), Dr. H. P. Hawkins (St. Thomas's Hospital), Dr. J. W. Washbourn, Dr. W. Bulloch and Dr. G. Schorstein (London Hospital), Dr. M. S. Pembrey (Guy's Hospital), Dr. Ogle, Dr. S. West, Dr. Theodore Williams, Professor R. F. C. Leith (Birmingham), Professor Sheridan Delépine (Manchester), Dr. J. Neil, Mr. A. J. Freeborn, Mr. W. W. Fisher, Mr. P. F. Willert, and others.

The buildings stand in the museum grounds and a full account of them, together with plans, appeared in *THE LANCET* of June 23rd, 1900, p. 1823. The architect was Mr. J. A. Souttar of Bishopsgate-street, London, E.C.

The VICE-CHANCELLOR, having referred to the growth of natural science study in the University and to the good work done by the late Regius Professor of Medicine and the late Professor Rolleston, called upon Dr. J. Ritchie, the reader in pathology, to give some account of the work.

Dr. RITCHIE said it was natural to think of the time when the University voted the money for the building of a department of pathology, and in carrying out the work the University had the advantage of the experience and advice of two of its members, than whom there could not be greater experts in the details of such work. One was the Regius Professor of Medicine who not only looked upon the scheme from the standpoint of his official position, but all along he had given to it the advantage of the vast stores of experience that he possessed as to what ought to be provided in such a department. The other gentleman to whom the University owed much in this connexion was Professor Arthur Thomson. In the actual building fabric they had two things to keep in view, two objects for which such a building ought to

be made available. The first was to meet the requirements of those preparing for graduation in medicine. The University of Oxford had by recent regulations made the subject of pathology one of very great importance in the second Bachelor of Medicine examination, which was such as was required in very few examining institutions in this country. Therefore, the first thing they had to think of was the proper provision and accommodation for teaching the subject, and so they had that lecture-room and other rooms which were necessary for students to obtain that practical acquaintance with the details of the science of pathology on biological lines which they ought to have. The greater part of the necessary studies along these lines was of a microscopical nature, and therefore they had to provide rooms where the students could become practically acquainted with the subject. They had had to make provision also for students obtaining an adequate knowledge of the bacteriological department. One matter which they had to consider very seriously was that the standard for graduating in medicine in the University was very high, and they had had to face the question of the possibility of many men coming back here to work after having graduated. Here, therefore, was provided a complete chemical laboratory where researches could be carried on; they had tried to meet the actual requirements of every branch of research or to arrange matters so that any requirements could be very easily met in the future. They had also had to make provision for the accumulation of specimens the custody of which the University had made over to this department. Upon this point he should like to refer to the intimate connexion which had been made between the Radcliffe Infirmary and this department, and they hoped that the work would be for the benefit of the inmates of the Radcliffe Infirmary, as a great part of it would be in the way of confirming the diagnosis of the medical staff. Dr. Ritchie concluded by referring to the admirable manner in which the architect had designed the building and to the munificence of Dr. E. R. Frazer, of Balliol College, who had given £5000 towards the expenses.<sup>1</sup>

Sir W. S. CHURCH, Bart., President of the Royal College of Physicians of London, next delivered an address. He traced the teaching of modern medicine in Oxford from the time that Sir Henry Acland brought the museum into being and made a graceful reference to the occasion on which they were met, being also the day on which the eightieth birthday of the Nestor of Pathology, Professor Virchow, was being celebrated. Pathology and physiology were interdependent. The days of opposition to the study of the natural sciences in the University had, happily, long since passed away, and they were more nearly approaching the ideal the originators of the museum had before them. But yet much remained to be added before the University was fully equipped for, to use the words of Mr. Ruskin, "the reverent and earnest study of nature and of man, to the glory of God, to the better teaching of the future, to the benefit of our country, and to the good of all mankind."

Professor G. SIMS WOODHEAD, Professor of Pathology at Cambridge University, after announcing that a telegram of heartiest greetings had been sent from the meeting to Professor Virchow, congratulated the University on her new Laboratory.

The REGIUS PROFESSOR OF MEDICINE, in moving a vote of thanks to the Vice-Chancellor, said it was a fact of happy augury that he was the grandson of that Professor Alexander Monro who founded both the Edinburgh Infirmary and the Edinburgh Medical School.

## NOTIFICATION OF DEATH TO THE CORONER.

WE have received a voluminous correspondence which was evoked by the preliminaries of the inquest on the late Right Hon. W. W. B. Beach, M.P. It will be recollected that this gentleman, who had attained a great age, was thrown out of a hansom cab in Parliament-street on August 2nd and died at 8.45 P.M. on August 3rd in Westminster Hospital, to which he was admitted immediately after the accident. Here it is well to point out that August 3rd was a Saturday and August 5th was a Bank Holiday. On the evening of August 3rd the

<sup>1</sup> *THE LANCET*, July 7th, 1900, p. 39.

house physician, Mr. A. R. Roche, drew up a properly-worded intimation of the death and sent it to the private residence of Mr. Troutbeck, coroner for Westminster. The next morning (Sunday), hearing that the coroner was out of town, he obtained his temporary address and telegraphed the facts of the case. About 11 A.M. on August 5th a reply was received from the coroner stating that an inquest would be held on August 7th, and in answer to this Mr. Roche telegraphed that decomposition was setting in. On August 7th, before the inquest commenced, the coroner, we understand, sent for Mr. Roche and in a private room spoke to him in a manner which he (Mr. Roche) resented as "unjustifiable." Mr. Roche very properly refrained from any contention with the coroner and confined himself to sending to the hospital secretary a written statement of the circumstances as seen from his point of view. The secretary's reply to this communication contained the passage, "I am directed to inform you that the House Committee consider that your action in communicating with the coroner regarding the death of Mr. Beach was entirely correct," a sentiment which was repeated in other words at a later stage. It appears that the coroner for Westminster considers that information of a death ought to be given not to the coroner himself but to the coroner's officer. The authorities of Westminster Hospital have, however, been guided by the strict letter of the Coroners Act, and on August 15th the secretary wrote to the coroner that it had been "the practice at this hospital for the past 24 years, and doubtless for a very much longer period, to give information to the coroner direct." The reply was as follows:—

Coroner's Office, Phillimore Chambers,  
21, Great Smith-street, S.W.  
16th August, 1901.

S. M. Quennell, Esq.  
Dear Sir,—To deal with the question of construction of an Act of Parliament first. I fear that the logical position in which you have placed yourself is untenable.

The Act does not refer to the coroner's officer, therefore there is no officer! Such is the argument.

The proper way to inform the coroner is to do it in the manner in which he asks.

The proper course has been pointed out many times. It is the course adopted with great success by other hospitals.

Unless and until these notices are sent from the secretary's office at once directly to the officer there always will be confusion. The resident officers are not instructed by anyone in these duties, and, of course, they bungle like any other inexperienced young men.

It must obviously cause delay not to send direct to the officer, because a report must be made in each case by him to enable the coroner to make his decision. The other matter of the particular case of Mr. Beach is far more serious than you appear to be aware of.

Owing to the action of the house physician in not reporting this death to me or to the officer or any other person until by telegram on Sunday afternoon, when, as he admitted, he knew it could not reach me until Monday morning, complaint has been made of the delay to the Home Secretary, and Sir Michael Hicks-Beach tells him that the coroner was informed "at once" of the death, and that reasons were given then for taking the inquest very soon. Both of which statements are untrue. Now these statements could only be made by a man in his position on the strength of information given by some person at the hospital.

I want an explanation of the whole circumstances.

I also think that the House Committee ought in their own interests to ascertain how such statements came to be made.

The reason alleged for the hurry being that the body was decomposing makes the position all the more inexplicable, since this body was actually left in the hospital full of patients in an open coffin to within a quarter of an hour of its removal for the purpose of the inquest on Wednesday.

It is true that putrefaction had set in, as alleged, on Monday morning, it is perfectly disgusting that the house physician did not insist upon the body being removed to the parish mortuary at once.

Yours faithfully,

J. TROUTBECK,  
Coroner for Westminster.

From inquiries which we have made there would seem to be no doubt that, technically speaking, notice of death should be given to the coroner, but that, as a matter of fact, this is seldom done anywhere, as in practice it is found to be very inconvenient and often to cause delay in the holding of an inquest. The practice generally adopted is to notify the coroner's officer who at once makes inquiries and reports the facts to the coroner for his decision. By sending directly to coroner the necessity arises of forwarding the letter to the officer, who may not receive it till the next day, and then he may have to make inquiries and to report to the coroner on the following day, thus causing two days' delay, which may be very unpleasant for the relatives.

As we have said above, the practice at Westminster Hospital is to give information directly to the coroner, but it is evident that to the coroners generally this practice does not commend itself, and perhaps not without some cause, for there does not seem to be any particular reason, save always the verbatim interpretation of the words of an Act of

Parliament, why hospital authorities should not notify the coroner's officer instead of the coroner himself. Therefore we can to some extent understand the position taken up by Mr. Troutbeck in his letter, which, however, bears traces of having been written in haste and is certainly lacking in urbanity. It should be explained that the hospital authorities deny that the body was "left in a hospital full of patients in an open coffin," and the House Committee informed the coroner that he was "mistaken in suggesting that it was perfectly disgusting to allow the late Mr. Beach's body to remain in the hospital for so long a period." The body lay in a mortuary chapel which is completely cut off from the hospital proper and the coffin was screwed down on the morning of Monday, August 5th. It was more in harmony with the wishes of Mr. Beach's family that the body should remain there than be removed to the parish mortuary.

At one hospital we are informed that the authorities have a special card printed, which is filled up in the steward's office, giving the necessary particulars, and is then sent directly to the coroner's officer. Some such arrangement as this, we think, the best one to adopt and would have saved the unpleasantness to which we have referred. Mr. Roche merely followed the custom in vogue at his hospital and no blame can attach itself to him. But it would be well for the hospital authorities on the one hand, and the coroner on the other, to come to some mutual understanding as to the course to be pursued in the future.

## SANITARY WORK IN THE PORT OF LONDON.

DR. WILLIAM COLLINGRIDGE, the recently-appointed medical officer of health of the City of London, was previously for a period of 20 years medical officer of health of the Port of London—namely, from 1880 until the year 1901 was somewhat advanced. He is therefore the author of the report of the medical officer of health of the Port of London for the half-year ending June 30th, 1901, and he prefaces it with a brief historical retrospect. In 1880 the medical staff consisted of a medical officer of health and a medical practitioner who gave a portion only of his time to the care of patients admitted into the hospital ship *Albin* lying off Gravesend. At the present date the medical staff consists of a port medical officer, three boarding medical officers at Gravesend (one of whom is in charge of the hospital on shore), and one medical officer stationed at Sheerness. During the year 1880 there were 16,341 vessels inspected; during 1900 this number had risen to 31,224. In 1883 the boundaries of the jurisdiction of the port were greatly increased and were made to include the mouth of the Medway. To meet the wishes of the Rochester port authority by inspecting all vessels arriving from foreign voyages, a medical officer has been stationed at Sheerness who boards all vessels reporting. In 1892 the great development of the port sanitary authority took place. Cholera appeared on the continent, and the Customs had no means of coping with the imminent danger of importation of this disease. A medical officer was, therefore, stationed on the Customs' hulk off Gravesend, whose business it was to visit every vessel on arrival, and what was only intended as a temporary measure became a permanent one, the whole of the machinery for dealing with infectious disease passing from the hands of the Customs to the corporation as port sanitary authority. The Public Health Amendment Act of 1896 abolished the last vestige of quarantine and laid the whole duty of the protection of the ports of this country upon the local authority, acting under the supervision and control of the Local Government Board. The report for the half-year ended June 30th, 1901, with its appendices fills 60 large pages. It shows that during that period 16,376 visits of inspection were made to vessels of all classes within the port, 7361 lying in the river and the remainder in the various docks. Of the total number, 13,433 (equal to 82 per cent.) carried the British flag, the Norwegian coming next in numerical order with 1020 (equal to 6 per cent.). The boarding medical officers at Gravesend visited 5141 vessels, 476 of which were medically inspected, this involving the personal inspection of 13,255 passengers and 35,626 persons forming the crews. The cases of infectious disease dealt with were 157 in number—namely, eight of small-pox, four of scarlet

fever, 18 of diphtheria, 28 of enteric fever, 80 of measles, and 19 of other infectious diseases. Ten men forming part of ships' crews were found to have enlarged or suppurating inguinal glands and as a precaution against plague were removed to the port sanitary hospital for observation, but bacteriological examination gave negative results. Dr. Collingridge quotes the memorandum of the Local Government Board relative to ship-borne rats and plague, and devotes several pages to this question. Experiments, he says, have been made by the Clayton Fire Extinguishing and Ventilating Company, Limited, one being on the s.s. *Manora* in the Royal Albert Dock. The vessel was empty at the time and the method consisted in pumping sulphurous acid gas from a special apparatus into the hold. This system is effective in destroying rats and has the great advantage of limiting the risk from fire which always obtains when sulphur is burned on shipboard, but it may be detrimental to the cargo. On the *Manora* 303 dead rats were found after treatment of the vessel. Experiments with the cocco-bacillus of Dr. Danysz were made in the Royal Victoria and Surrey Commercial Docks. Bread soaked in the virus, and also the bodies of guinea-pigs and mice which had died from inoculation with the bacillus, were deposited in the warehouses and were devoured by the rats but without producing any observable effect on them. Large numbers of rats were, however, destroyed by means of traps and poison. From Feb. 28th to June 30th the total so destroyed was 32,008, of which about 20,000 were killed on board vessels and about 12,000 in warehouses.

### THE POST-GRADUATE COLLEGE, WEST LONDON HOSPITAL.

THE new college building of the Post-Graduate College at the West London Hospital, Hammersmith, was formally opened by Sir WILLIAM MAC CORMAC, Bart., K.C.B., K.C.V.O., on Oct. 14th in the presence of a numerous company.

Sir WILLIAM MAC CORMAC in the course of his address said that they had not yet reached the condition denoted by that somewhat misused term "perfection." They would continue in the future to realise further progress just as they had realised advances in the past. Medicine was a progressive science and those who practised it could not stand still. They must ever continue to learn; indeed, they all must do so unceasingly if they would not be hopelessly left behind, and in an institution like that which they were in the opportunity was given. The staff of the West London Hospital was young and energetic and might well be congratulated on the progress which it had made. Many years ago there was some question of establishing a complete medical school, but the plan was, fortunately, abandoned, since there were a sufficient number of such institutions in London and the cost to the smaller schools of teaching subjects like chemistry, anatomy, and physiology was practically prohibitive. The much more promising project of a post-graduate school subsequently took place, and from small beginnings, consisting in the delivery of weekly lectures without any clinical advantages, had now achieved a very considerable success. A feature in the school was that it was reserved exclusively for qualified medical men. Unqualified students were not taught by their side, nor, indeed, would the same class of teaching be suitable for both. The natural diffidence of the older student was spared the comparison of his own mistakes and shortcomings with the complete absence of any such weakness in his younger brother. The wards and hospital practice were open to all the post-graduates. Special clinical lectures were given, lectures were daily delivered in the lecture-room, and classes of instruction in various special subjects had been formed, limited in each instance to 10 persons, who could thus readily acquire the knowledge they desired. All this had been proved to be of great service to a large number of general practitioners of London and the suburbs, and to country medical men as well, who found the opportunity of doing occasional hospital work useful and agreeable. Many officers of the navy and army had availed themselves of the opportunities here afforded. Work of a similar kind was being done elsewhere, but the West London Post-Graduate College was the only one enjoying the advantage of a close

connexion with a general hospital, and the only one where the practice was reserved for the benefit of qualified men alone. Opportunities were given to the students of personally examining the patients before the cases were discussed, and those interested in surgery could assist at operations in the theatre and do work as dressers in the wards. A considerable number of the medical officers serving in South Africa had previously attended the post-graduate instruction there, and had written in terms of grateful acknowledgment of the value it proved to them. Nearly all of these officers attended without having previously obtained any leave from their ordinary duties, which had to be attended to. Some of them came three or four times a week from places like Aldershot, Chatham, and Woolwich, at much personal inconvenience to themselves, and several naval medical officers during their leave ashore had also attended to their great credit. The need for the school would be more and more recognised, not only in the medical element of the public services, for whom study leave in the near future should be a recognised institution, but for civil practitioners as well. When the medical history of the war came to be written justice would be done to the medical officer, who had displayed a complete devotion to duty and a complete self-sacrifice. He accomplished much, and in an admirable manner, under restrictions and difficulties which it was very hard adequately to appreciate, and the results accomplished would bear the most favourable comparison with those of any other war or expedition, and, as recently seen in China, with the medical services of other nations. The war had caused the generals and commanding officers to see with their own eyes what medical officers did, and there had been many strongly commendatory reports sent home, while very generally a greater sympathy and appreciation had been shown by the combatant ranks for the work of their medical brethren. In regard to the manner in which the medical staff as a whole acquitted themselves in the face of the tremendous responsibility which they had suddenly to face Lord Romer and his colleagues on the South African Hospitals Commission had vindicated the high reputation of the Army Medical Corps. If there were failure in some instances the cause was the pressure of circumstances which baffled the devotion of the medical officers. Some means should be devised for removing the Army Medical School from its isolated position at Netley to London, where they would feel the constant stimulus of competition and of criticism, and be made free to benefit by the unrivalled teaching and clinical opportunities which the great city afforded. If a great military hospital and school of the most modern and complete type were established in London, and a body of teachers similar to that of the Kaiser Wilhelm Institute in Berlin, where post-graduate instruction of the army medical officers was most complete, were appointed in connexion with it, a more widely reaching influence would be exerted for the improvement and advancement of the medical department of the army than any other single measure could accomplish. It would enable a considerable proportion of the army medical officers to keep in touch with the scientific work of the London schools and Netley Hospital could still be used for the reception of invalids from abroad. That or any other suggested improvement altogether depended on the ability of the authorities to fill up the vacancies in the department and to create a medical corps of sufficient number. The scheme would probably be the means of effecting a closer relationship between the military and civilian members of the profession. In the South African war the services of civilian practitioners were largely drawn upon, and that would be the case in any future war.

### REPORT OF THE COMMISSIONERS IN LUNACY FOR SCOTLAND.

In the forty-third annual report of the Commissioners in Lunacy for Scotland it is stated that the number of the insane in Scotland on Jan. 1st, 1901, under official cognisance was 15,899. Of this number 2395 were private patients, 13,458 were paupers maintained by parochial rates, and 46 were maintained at the expense of the State. In January, 1858, when the Commissioners in Lunacy for Scotland entered on their functions, the total number of lunatics officially known to the board was 5824, and since then the number of lunatics under their jurisdiction has increased

to two and three-quarter times the original number. The increase of the population during the same period has been 42 per cent. "The proportion of all pauper lunatics per 100,000 of population shows an almost steady increase since 1858 and at the beginning of this year attained its highest figure of 308," as against the next highest, 304, which was attained last year. As regards the number of persons admitted into asylums, excluding mere transfers from one institution to another, it is shown in Table VII. of the report that the number of private patients admitted during the year 1900 was 542, being 20 less than in the preceding year and one more than the average for the quinquenniad 1895-1899. The number of pauper patients admitted during the year 1900 was 2899, being 31 more than the number during the preceding year and 160 more than the average for the quinquenniad 1895-1899. During the year the total number of pauper patients discharged as recovered amounted to 1276, or 12.2 per cent. of the average number resident. The number of deaths in the same class of patients was 958, or 9.2 as calculated on the same basis. Of a total of 102 accidents reported as having occurred to patients during the year, in 13 cases the termination was fatal, death in four of these cases being due to suicide by hanging or cutting the throat. In one case of suicide by a patient leaping into a river the nurse, Miss Isabella Sime, also lost her life in an heroic effort to save the life of the patient under her charge. In 48 cases the accidents involved fracture of bones or dislocation of joints, and in 23 cases injuries to the head. There are two training schools for imbecile children, one at Baldovan and the other at Larbert. These institutions receive between them about 380 children, but both appear to be overcrowded, and further accommodation is needed. In Section X. of the report the commissioners deal with the question of general paralysis. During the five years 1896-1900 the total number of deaths from general paralysis amounted to 667, including 550 males and 117 females. Of the male patients, 40 per cent. had died from the disease between the ages of 31 and 40 years, and 39 per cent. had died between the ages of 41 and 50 years. For females the corresponding proportions were 39 per cent. and 33 per cent. Comparing these figures with those of the decennium 1865-1874, it appears that some support is lent to the view that there is an increase in the number of deaths from general paralysis during early adult life and the middle periods of life—i.e., in the decades 31 to 40 and 41 to 50 years. Of the total 667 patients who died from general paralysis during the period 1896-1900 the length of residence in asylums was three years and under in 605 cases, or 91 per cent. In 54 cases the duration of residence was from three to five years, in seven it was five to 10 years, and in one case it was over 10 years. The expenditure on maintenance per head of pauper lunatics has risen steadily since 1895, and the rise still continues. The expenditure for the purchase of land and the erection of asylums also continues to increase year by year without abatement.

## THE THIRTIETH ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD, 1900-1901.

### I.

#### THE FOOD AND DRUGS ACTS AND THE QUALITY OF THE METROPOLITAN WATER-SUPPLY.

THERE are certain fresh features in the sections of the annual report of the Local Government Board just issued relating to the administration of the Food and Drugs Acts and to the metropolitan water-supply which are of interest and worthy of note. The Sale of Food and Drugs Act of 1899—a really important addendum to the existing laws—came into operation on Jan. 1st, 1900, and seeing that this Act contained several important changes in the law relating to adulteration of food it is interesting to learn in what manner the new legislation has affected the administration of this important department of public service. The chief result would appear to have been—and that is satisfactory so far as it goes—that many more samples have been taken for analysis. Indeed, during 1900 many local authorities for the first time in their existence

obtained samples for analysis, whilst others have been induced largely to increase the number hitherto taken. It is with considerable satisfaction that we note that the Local Government Board have at length stirred up those authorities of districts in which the work done was inadequate, urging upon them to exercise the powers entrusted to them by the legislature for the suppression of adulteration. It is to be hoped that this activity in thus reminding the authorities of the duty specifically cast upon them will be maintained, for we cannot admit even now that the number of samples analysed in relation to the population is sufficient. Moreover, with the increase of the number of samples taken for analysis there invariably appears a decrease in the number of samples found to be adulterated. The past official year again gives evidence of this fact, for something like 10,000 samples in excess of the number taken in the previous year were obtained for analysis and the result shows a diminution in adulterated samples of 0.6 per cent.; that is to say, the percentage adulterated in 1899 was 9.4, while in 1900, with 10,000 more samples taken for analysis, it was 8.8. The number of samples examined was 62,858, of which 5503 were reported against and proceedings were instituted in respect of 3321. Just as there has been a decrease in the number of metropolitan medical officers of health consequent on the operation of the London Government Act, 1899, so there has been a similar decrease in the number of analysts for metropolitan boroughs. The number of analysts whose appointments were approved by the Local Government Board was 237. As in previous years the bulk of the samples analysed consisted of milk, the proportion reported against (namely, 10.8 per cent.) being slightly higher than the average of the previous six years—a result which may be attributed to the remarkable drought. It will be interesting to learn in what way the rate of adulteration of milk will be affected by the recent adoption of a standard for milk. To some extent the important increase in the total number of samples analysed was due to the occurrence of arsenic in beer in Manchester and certain other places in November last year. It is satisfactory to record that the analytical equipment of the country proved equal to the occasion and "within 30 hours," writes the analyst for Lancashire, "of the source being made known in the neighbourhood of Liverpool samples of glucose and of beer were in the hands of the public analyst. Within a few days most of the dangerous glucose was withdrawn from use. In less than three weeks most of the beer in and near large towns was either destroyed or withdrawn from sale prior to destruction, and although in places more remote from the centre of activity and from the great brewing centres the harmful beer lingered longer, yet after three weeks there was only here and there a sample to be found in the country districts." During the year no less than 4559 samples of beer were thus submitted to analysis. A curious and contemptible mode of adulteration is reported by the analyst for Cornwall. He noticed that a portion of a small cheese submitted to him had an unusually thick rind. While the cheese itself would have been passed as genuine the rind was found to contain no less than 69 per cent. of barium sulphate, a very heavy white substance. There is no doubt that as cheese is sold by weight the barium sulphate was added to increase its weight.

We note with satisfaction that Dr. Thorpe has considered it advisable in the public interest to institute a tri-weekly examination of the metropolitan water companies' supplies instead of a monthly chemical examination as was the plan pursued by his predecessor, the late Sir Edward Frankland. Further, samples are now collected at various points in the districts supplied by the different companies and not as hitherto always from the same place. We have urged the desirability of this plan of control repeatedly in our columns. Dr. Thorpe admits, however, that the tri-weekly examinations are only partial, being confined to the determinations of the amounts of oxygen consumed and albuminoid ammonia, these data affording, in Dr. Thorpe's opinion, trustworthy indications of the variations in the proportion of organic matter present in the waters. At the same time when the samples were not perfectly clear the turbidity was examined. The monthly analyses reported by Sir Edward Frankland were laborious on account of his confidence in the method known as the combustion method for the determination of the organic carbon and organic nitrogen in the water. Sir Edward Frankland, as was well known, would not recognise that the albuminoid ammonia process was of any value. Thus the

difference of opinion on this point between Sir Edward Frankland and Dr. Thorpe has enabled the latter to undertake the analyses of water more expeditiously by adopting the quick albuminoid ammonia and oxygen absorbed processes in place of the tedious combustion process. In our opinion the number of samples submitted to analysis might be further increased with advantage and the results should be published without unnecessary delay. Dr. Thorpe, however, by no means belittles the combustion process for the determination of organic carbon and organic nitrogen, for he says that the results gained are of great value as they afford the chief data on which the probable origin of the organic matter is determined. But the process takes time. During the year there were a number of occasions when sensible turbidity was observed in the waters, but in nearly all cases the turbidity was very slight indeed and consisted mainly of rust-stained particles in all probability introduced by the disturbance of the water. 14 out of 16 samples of the Grand Junction Company's water collected during the months of August, September, October, and November, were distinctly opalescent with very finely divided oxide of iron due, as was afterwards explained by the engineer, to the proximity of the collecting place to the dead end of a main. The defect was subsequently remedied, as shown by the later samples drawn being almost invariably clear. It is regrettable, we think, that bacteriological examinations are omitted, although Mr. Perrin, the official water examiner, expresses the hope that the recommendations of the Royal Commission presided over by Lord Llandaff, to the effect that small bacteriological experimental works should be established in order to ascertain what processes of treatment give the best results and what bacterial standard of effectual filtration can be reasonably adopted for practical use, will receive the early attention of the companies concerned. Dr. Thorpe remarks that it is obvious that the organic matter present in the raw Thames and Lee waters must be partly of vegetable and partly of animal origin, as the surface and other drainage from the cultivated land and the effluents from the sewage works of towns situated on or near the rivers are discharged into the streams. He admits that under ideal conditions the use of water subject to such regular pollution would be avoided, but adds the very safe remark that provided certain flood water is excluded and provided that after proper storage the water is efficiently filtered the risk of danger to the public health through consuming such water is reduced to a minimum if not to zero. Of course, it is a well-known fact that the water-supply of London drawn from the river Thames and the river Lee has only been and is only now made safe for drinking purposes by efficient filtration, and since that is so, it is most important that the filtration processes should be closely studied and watched and kept under the strictest possible control.

### MEDICAL SCHOOL DINNERS.

*St. Bartholomew's Hospital.*—The annual old students' dinner took place in the Hospital Hall on Oct. 1st, when 158 sat down to dinner, Mr. W. J. Walsham being in the chair. Among the guests were Sir Trevor Lawrence, Sir William Mac Cormac, the Hon. John Collier, Sir Henry Norbury, Professor Clifford Allbutt, and the Principal of the London University. The event of the evening was the presentation to Sir Thomas Smith of a subscription portrait painted by the Hon. John Collier. The Chairman, in presenting it, expressed the double feeling which inspired the subscribers of admiration for Sir Thomas Smith's professional qualities and affection for his personal qualities. Sir Thomas Smith begged Sir Trevor Lawrence to accept it on behalf of the Governors and proposed the painter's health. The toast of "The Services" was proposed by Mr. Bowlby, and replied to by Sir Henry Norbury, K.C.B., Director-General of the Royal Navy, and Colonel Hendley, I.M.S. Sir T. Lauder Brunton proposed "The Visitors," to which Professor Clifford Allbutt and the Principal of the London University replied.

*Charing Cross Hospital.*—The annual dinner of the past and present students of the Charing Cross Hospital was held on Oct. 2nd in the Victoria Hall of the Hotel Cecil. The chair was taken by Mr. C. Gibbs. The guests, who numbered over 250, were able to converse with one another after the dinner, for which unusual facility they had to thank

the honorary secretaries, Dr. H. S. Clogg and Dr. W. H. Unwin, who had arranged a short toast list. Professor Taylor proposed "The Staff of Charing Cross Hospital and Medical School," to which Mr. J. A. Bloxam replied. Dr. Eden in a witty speech gave "The Past and Present Students," which was replied to by Mr. Hopewell Smith and Mr. G. E. Bellamy. The toast of "The Visitors" was given by Mr. F. C. Wallis and was responded to by Mr. Anthony Bowlby.

*St. George's Hospital.*—The annual dinner was held at the Whitehall Rooms on Oct. 1st. The chair was occupied by Mr. J. Warrington Haward, consulting surgeon to the hospital, and 130 guests were present. The chairman proposed the usual loyal toasts and also that of "The Medical School." Dr. Isambard Owen, the dean of the school, responded for the latter. The health of Dr. P. W. Latham of Cambridge, who had given the introductory address but was unfortunately prevented from attending the dinner, was proposed by Dr. W. H. Dickinson. Mr. A. Marmaduke Shield proposed "The Past and Present Students," the toast being responded to by Dr. F. M. Hawkins and Dr. W. L. Ascherson. "The Health of the Governors" was proposed by Mr. Turner and replied to by Mr. Holmes, the treasurer of the hospital. The deputy treasurer, Mr. A. W. West, proposed "The Health of the Chairman." The guests included the senior physician and senior surgeon, Dr. W. Ewart and Sir W. H. Bennett, and other members of the acting and consulting staff, together with Surgeon-General Penny, Deputy Inspector-General Wood, Colonel H. E. Drake-Brockman, Colonel Wilson, Colonel A. W. F. Street, and Colonel G. D. N. Leake.

*Guy's Hospital.*—The annual students' dinner was held on the evening of Oct. 1st and was largely attended. In the absence of Dr. P. H. Pye-Smith the chair was occupied by Dr. F. Taylor. The Chairman, in proposing "The Students' Club," said that there was no doubt about the success of the Students' Club, which was now something like 20 years old. The toast of "Guy's Hospital" was next proposed, coupled with the name of Mr. Cosmo Bonsor. Dr. Taylor said that there was an old saying that "Wherever you go, whether to New Zealand, or Timbuctoo, or Greenland, or Kamtchatka, or even to the North Pole, there you will find a Guy's man." They knew to their cost that there had been a great many Guy's men in South Africa. They might perhaps know that a Guy's man was at that moment accompanying the Duke and Duchess of Cornwall and York at the other side of the Atlantic. Mr. Cosmo Bonsor, in responding to the toast, said that he always considered it a very high honour to have his name coupled with Guy's Hospital. Dr. Taylor had spoken of South Africa, and there was one amongst them that night, Dr. S. E. Denyer, who had been distinguished for having gallantly done his duty in the field there. Last year they had welcomed home from South Africa their friend Mr. A. D. Fripp who had a great deal to do with the Students' Club but was not present with them that night. They were also extremely proud to see Dr. J. W. Washbourn, who had returned home and who made a great name for himself in South Africa and for the school where he learned to work—Guy's Hospital. Their friend Dr. F. E. Fremantle was also amongst them. He could say a great deal about the ladies who had been trained in Guy's Hospital wards, but this he would declare—that at no time in the history of the hospital had it and those connected with the institution been doing a greater work in the cause of humanity and science and civilisation than at present. With regard to the future, they desired that Guy's should take the precedence of every hospital in the world, and they looked to those who had served in the wards and done their duty to the hospital in the past, to provide that one miserable thing, without which they could neither exist nor look forward—namely, money. They knew that so long as all connected with the hospital did their duty they would be supported by the public. Mr. French proposed the health of Dr. Taylor, who briefly replied. Mr. Cosmo Bonsor said that they could not allow Dr. L. E. Shaw to pass from his position as dean of the Medical School without expressing on this occasion their gratitude to him for his past work and their fervent hope that he might have health and happiness in his retirement of *otium cum dignitate*. During all the years that he had been Dean, on these occasions he had been extraordinarily mysterious, and had apparently passed on that tradition to his successor, Dr. J. Fawcett, who would not give him (Mr. Bonsor) the slightest information as to "entry day." Without knowing

in the least what the "entry" was likely to be, he thought they might congratulate Dr. Shaw on what he had done for the school in the past. They were all grateful to him for his work, they would drink his health, and at the same time they would hope that his mantle had fallen successfully on Dr. Fawcett. Dr. Shaw responded, and the singing of "Auld Lang Syne" brought to a close a very pleasant and successful evening.

**London Hospital.**—The 117th session was opened on Oct. 1st with the usual old students' dinner, which was held in the library of the college, Dr. Frederick Daly being in the chair. 100 old students sat down to dinner. Dr. Daly, in congratulating the old students on the prosperity of the old hospital and college, called attention to the enormous improvements which were now taking place, especially the addition of the new pathological block, outpatient department, isolation block, and operating-theatres. He said that a great deal of the work was now complete, and added that it was probably without precedent that such an enormous amount of work should have been carried on without a single bed being closed, so that the study of medicine and the students' career had not been checked for a single hour. He also called attention to the large number of old students who had been out to the front, particularly alluding to the honours that had fallen to the College by Sir Frederick Treves receiving knighthood and Captain Neville R. Howse (from Australia) the Victoria Cross. Mr. M. Brownfield and Dr. J. Edmunds, old London students who qualified in 1854, said that they perhaps could speak with greater authority on the London Hospital Medical College than anyone else present. Throughout their lives they had felt thankful for the education they had received at their old hospital and for the enormous experience in practical work that they had there gained. Mr. T. H. Openshaw, and others who had recently returned from South Africa, spoke also of the practical work done by London Hospital men at the front. Mr. J. A. Hosker, late mayor of Bournemouth, and other speakers bore tribute to the excellent opportunities afforded by their old hospital and college.

**St. Thomas's Hospital.**—The St. Thomas's old students' dinner was held at the Whitehall Rooms of the Hôtel Métropole on Oct. 2nd. Mr. H. H. Clutton was in the chair and was supported on either hand by General Sir Ian Hamilton and General Sir Reginald Wingate, the Sirdar. This year a new departure was made in order to give the old students an opportunity of talking with their former companions, for which purpose a conversation was held in the reception-room after dinner. After drinking the toast of "The King and the Royal Family," followed by that of "Success to St. Thomas's Hospital," which latter was replied to by Mr. T. G. Wainwright (the treasurer) and Dr. H. G. Turney (the dean), Dr. S. J. Sharkey proposed the health of the Chairman, who in his reply proposed that of the secretaries, which was responded to by Mr. E. M. Corner. There were 150 people present and all adjourned to the reception-room after dinner and there ended one of the most pleasant and successful meetings of the St. Thomas's old students. The great success of the conversation will, it is hoped, lead to still further developments next year.

**University College Hospital.**—The past and present students of University College Hospital held their annual dinner at the Hotel Cecil on Oct. 1st. The chair was occupied by Sir Richard Douglas Powell who proposed the toast of the evening, "Success to University College Medical School," to which the Dean of the medical school, Professor John Rose Bradford, replied. Amongst the other speakers were Dr. F. Roberts and Sir John Williams. The dinner was well attended, over 120 guests being present.

## ASYLUM REPORTS.

**Surrey County Asylum, Brookwood (Annual Report for 1900).**—The average number of patients resident during the year was 1033, comprising 421 males and 612 females. During the year 285 patients were admitted, 133 being males and 152 females. Of these 239 were first admissions. Mr. James E. Barton, the medical superintendent, states in his report that a female patient admitted from the Richmond Hospital developed scarlet fever five days afterwards. Three other patients and a nurse were attacked and had to be removed to the Cottage Hospital. The admissions were

generally found to be "of a bad class as regards recovery. 71 had suffered from previous attacks, and in 53 the insanity was of more than a year's duration." A female patient who was admitted pregnant was confined of a child. Of the causes of insanity in the admissions, worry, overwork, and adverse circumstances accounted for nearly 28 per cent. Alcoholic intemperance and previous attacks were the causes in 35 and 51 cases respectively. "In 18 instances the mental disorder followed an attack of influenza. 14 general paralytics were admitted, all of whom were males, and the majority of these came from the parishes situated on the London side of the county." "There is no doubt," adds Mr. Barton, "that general paralysis has been diminishing in frequency in the rural districts for some years past, and in the female sex it appears to be approaching the vanishing point, only six cases having been admitted during the last five years." The number of patients discharged as recovered during the year was 89—viz., 50 males and 39 females, or 8.6 per cent. of the average number resident. The deaths during the year amounted to 101, including 40 males and 61 females, or 9.77 per cent. as calculated on the same basis. 11 patients died within one month of admission. Of the deaths one was due to myxœdema, two were due to cancer of the liver, three to Bright's disease, seven each to epilepsy and cardiac disease, eight to cerebral hæmorrhage, nine to pneumonia, 10 to organic brain disease, 11 to senile decay, 13 to general paralysis, 16 to phthisis and other forms of tuberculosis, and the rest to other causes. An inquest was held on the body of a male patient who committed suicide by strangulation. "This patient was the subject of melancholia. .... He was found suffering with an ischio-rectal abscess which was opened. .... On the following day he was found by the charge attendant on the floor with one of the triangular bandages which had supported the surgical dressing tied tightly round his throat." Only four casualties to patients occurred during the year, three of these being fractures of bones and one a dislocation, all due to accidental falls. A complete fire and domestic service has been laid on to the Cottage Hospital from the water company's main, and the outlet of the asylum drain has been connected with the district council's main sewer so that any excess of sewage beyond what can be beneficially utilised can be turned into the Woking sewer. The erection of additional wards at a cost of £87,000 to accommodate 350 patients was commenced in August, 1900. An outbreak of swine fever occurred at the farm in April, necessitating the destruction of the whole herd. The Commissioners in Lunacy state in their report that the day-rooms were bright and cheerful, the dormitories and bedding neat and clean, and the case-books and post-mortem records carefully kept. They commend the recent addition of another medical officer to the staff, and hope that pathological work will now be undertaken.

**Durham County Asylum (Annual Report for 1900).**—The average number of patients resident during the year was 1415, comprising 736 males and 679 females. During the year 330 patients were admitted, of whom 165 were males and 165 females. Of these patients 253—viz., 135 males and 118 females—were first admissions. Dr. W. St. John Skeen, the medical superintendent, states in his report that "the admissions were of the usual type and still show a large percentage of aged people; 26 patients were over 60 years of age, of whom four were over 75 years; 72 were admitted in a feeble state, and most of them died soon after admission." Among the admissions were 27 cases of general paralysis. The number of patients discharged as recovered during the year amounted to 149, or 10.5 per cent. of the average number resident. Of 818 patients discharged as recovered during the five years 1896 to 1900 inclusive, 124 have relapsed during the same period. The deaths during the year amounted to 165—viz., 94 males and 71 females, or 11.6 per cent. of the average number resident. Of the deaths, one was due to asphyxia by choking, five were due to cerebral hæmorrhage, eight to epilepsy, 12 to influenza and its complications, 12 to congestion of the lungs, 15 to pneumonia, 29 to general paralysis, 30 to cardiac disease, 34 to phthisis and other forms of tuberculosis, and the rest to other causes. Four cases occurred during the year of serious injuries in the form of fractures sustained by patients accidentally or by being pushed down by other patients, and in three of the cases satisfactory recoveries were obtained. During the year two female patients gave birth to children, in one case a boy and in the other a girl, but in neither case is the mother anticipated to make a satisfactory mental

recovery. The asylum committee state in their report that having regard to the requirements expressed from time to time by the Commissioners in Lunacy of provision at the asylum for the isolation of infectious diseases, the committee have decided to erect a small detached isolation hospital for the purpose. Electric lighting is now in operation throughout the building. The farm has continued to yield abundance of milk, meat, and vegetables, and the whole of the live stock, with the exception of two cows which had to be destroyed, were in good health. The Commissioners in Lunacy state in their report that the wards and dormitories were comfortable, fresh, and clean. They state that Dr. R. Smith, the late medical superintendent, after a long and faithful service of 44 years, has retired on a pension and has been succeeded by Dr. Sken, the senior assistant medical officer. They regret to find that it is proposed to reduce the medical staff by abolishing the post of pathologist. "This we consider a retrograde step and hope the committee can see their way to reconsidering the matter." They also state that "the insufficiency of the medical staff of late no doubt accounts for the [medical] case-books being considerably in arrears." At a more recent visit (Feb. 15th, 1901) the Commissioners in Lunacy refer to Newton Hall, an annexe of the asylum prepared for the accommodation of 52 male patients from the county asylums, all of whom are of the chronic quiet class, and who appear very healthy and contented in their new surroundings. Three assistant medical officers "are now on duty, and the case-books duly entered up to date."

*Royal Edinburgh Asylum (Annual Report for 1900).*—The average number of patients resident during the year was 940, comprising 482 males and 458 females. During the year 472 patients were admitted, of whom 248 were males and 224 were females. Of these 117—viz., 55 males and 62 females—were not first admissions. Dr. T. S. Clouston, the medical superintendent, states in his report that the year 1900 has been a record year for admissions, the number of admissions being 38 over the average of the preceding five years. This increase has been entirely in pauper cases, so that scarcely enough room could be found for private cases. A number of chronic insane pauper patients were boarded out during 1899 in other asylums with the view of providing room in the West House of the Edinburgh Asylum for recent and urgent private cases from Edinburgh. But this anticipation was not fulfilled owing to the exceptional increase of pauper patients among the admissions, chiefly from Edinburgh. As regards the cause of such an increase of pauper patients Dr. Clouston thinks that the excessive use of alcoholic liquors has to a large extent been the main factor. "We had, as a matter of fact, 115 cases, or about a quarter of our whole number of admissions, in whom drink was assigned as either the sole or as a contributory cause of the disease. If the admissions of men alone are looked at, 81, or about one-third of them, were alcoholic cases. I have never had experience of anything approaching this before, and I should fail in my duty if, seeing more of the terrible effect of excessive alcoholic drinking in destroying honour and reason and self-control than almost anyone else in Scotland, I did not strongly draw attention to a fact so disgraceful to us as a community. .... It is certain that for every man in whom excessive drinking causes absolute insanity there are 20 in whom it injures the brain, blunts the moral sense, and lessens the capacity for work. .... When in any community there is a large class to whom prosperity always means excessive indulgence in drink in defiance of natural and moral law it means that a higher sort of education is needed or that degeneration has set in. .... A true conception of liberty does not necessarily imply liberty for a man to drink himself to death if he can afford to do so at his own expense or the right to render himself a burden on other people and a source of degradation and danger to the community. .... Our recent Inebriates Act is almost a dead letter and Lord Peel's report remains as yet an interesting subject of academic discussion. .... Convictions for being drunk and incapable steadily increase in Scotland; my alcoholic lunatics have risen from an average of 15½ per cent. in the years 1874-1888 to 21½ per cent. in 1889-1898, to 22½ per cent. in 1899, and now to 24½ per cent. in 1900 .... and yet the politician cries *non possumus*. .... The national drink-bill steadily goes up and the national degeneration progresses. I am convinced that we shall have a big reckoning to pay some day. .... A consumptive race might conceivably be cured in two generations, or even in one by good conditions. I do not believe a

drink-sodden race could be fully cured in a hundred years. .... We can, I think, put down most of our 115 alcoholics of the year as being preventable and we can, if the current views of its causation are true, put down almost all our 49 general paralytics as in that list." Many of the patients admitted were suicidal and some were dangerous to others. During the year 165 patients were discharged as recovered, or 17·5 per cent. of the average number resident. The deaths during the year amounted to 99, or 10·5 per cent. as calculated on the same basis. Of the deaths two were due to Bright's disease, five to pneumonia, 10 to cardiac disease, 14 to phthisis and other forms of tuberculosis, 17 to general paralysis, 19 to senile decay, and the rest to other causes. Concerning the high mortality from phthisis Dr. Clouston observes that "many of the patients are very weak indeed on admission. .... They are liable therefore in an undue degree to fall victims to the tubercle bacillus." The general health of the inmates has been good with the exception of a slight outbreak of scarlet fever in Craig House from infected milk, one sporadic case of typhoid fever in the West House, and one case of small-pox occurring in a patient who had come on a South American steamer. The Commissioners in Lunacy state in their report that the asylum throughout is maintained in excellent order and that the medical case-books and registers are well kept, full accounts being written of the treatment and progress of the various patients under care. The Board of Managers state in their report that there is little prospect of the new asylum for the Edinburgh district being ready for occupation in February, 1902, as was at first calculated, and they "cannot without anxiety contemplate the prospect of having to find accommodation for the ever-increasing number of paupers."

## THE FIFTH INTERNATIONAL CONGRESS OF PHYSIOLOGISTS.

HELD AT TURIN, SEPT. 17TH-21ST, 1901.

The following are some further notes of communications made to the above Congress:—

### *The Results of Trephining the Cranium of Young Animals.*

M. JEAN DEMOOR (Brussels) contributed a paper on the above subject. He said that Danilewsky had found that trephining the cranium of young dogs was followed at a later stage by (1) arrest of development of the limb corresponding to the region trephined; and (2) the supervention of epileptiform convulsions followed by death, generally at the age of six months. M. Demon was able to corroborate the latter result but not the former in its entirety. The wasting was general. The animals developed normally during the months prior to the convulsions, but at the post-mortem examination showed no emaciation or other phenomena indicative of the region trephined. Experiments on rabbits gave similar results. Histological examination of the brains revealed a very marked moniliform condition of the cortical nerve-cells. Stained by the method of Golgi the enlargements were darkly coloured and the intervening strands were pale. This condition was the result of the strong cortical excitation which accompanied the epileptiform convulsions in which the animals died. If killed during the period of wasting the nerve-cell processes were smooth. A marked degree of chromolysis was also seen in the nerve-cells accompanied by a great poverty of chromatic substance which the author regarded as characteristic of the nerve-cells of trephined animals. There was no neuro-phagocytosis present except in one animal when death came on very slowly preceded by a state of imbecility.

### *Attempts to Educate a Pigeon devoid of Cerebral Hemispheres.*

Dr. Z. TREVES and Dr. A. AGAZZOTTI (Turin) had found that after removal of the cerebral hemispheres the animal remained motionless for several days. Then slight spontaneous movements were made and later a few steps. If placed on a small stage the bird dropped off on reaching the edge, but afterwards learned to advance with caution and remained upon it. This indicated some power of perceiving and remembering impressions. The perch was a low platform a few inches square, placed within a fume chamber in the laboratory; when thus far recovered the bird was dropped near its stage and encouraged to return, aid being given at

first. Then the distance was gradually increased about two inches at a time till ultimately at the end of five months it was able to fly back and to hop up upon its perch from a distance of eight metres. Up to this time it was impossible to induce it to fly in a direction away from the chamber or to fly down from a higher to a lower level, but later both these movements were accomplished. At Easter it was taken for a fortnight to Modena, where other exercises were taught, and on returning to Turin it at once found its way back to its old perch when set free in the room. Its acquirements gradually increased, but it never spontaneously left its support or made any attempt to peck at food. In July it was again taken to Modena and attempts were made to educate it to discern colours, but without noticeable success. Unfortunately, the pigeon died in August, nine months after the cerebral hemispheres were removed. A control pigeon, operated upon at the same time, acquired only a very limited power of movement, but was never able to fly or to return to its perch when only placed a few inches distant.

#### *The Effects of Nicotine on Nerve Cells and Nerve Endings.*

Professor J. N. LANGLEY, F.R.S. (Cambridge), contributed a paper on the above subject. Nicotine solution applied to a ganglion of the sympathetic prevented, as Professor Langley had previously shown, the passage of nerve impulses from the pre-ganglionic to the post-ganglionic nerve-fibre. There was doubt whether the alkaloid in this instance paralysed the nerve-cells or the nerve terminations of pre-ganglionic fibres around these cells. To settle the point the pre-ganglionic trunk was divided and time for degeneration of its fibres allowed. Nicotine applied locally to the ganglion now called forth its normal stimulation effects, so that the alkaloid must have had a direct stimulating effect upon the nerve-cells. Furthermore, nicotine when applied to a sympathetic ganglion caused only a localised erection of skin-hairs in the region supplied by the ganglion. This showed that it could have excited pre-ganglionic nerve-endings, otherwise the movement of hairs should have been much more general. On the other hand, nicotine had no exciting effect on spinal ganglia, nor did it seem to paralyse them, since it did not prevent the passage of nerve-impulses through the bipolar ganglionic cells of the skate. Applied to the spinal cord of this animal the alkaloid caused violent muscular twitchings or tetanus localised in the muscles supplied from the segment. On continued application this effect ceased, but even then muscular movement could be obtained by stimulating a posterior root. Transmission of impulses through the nerve-cells in this case was therefore not destroyed. The foregoing experiments illustrated three different kinds of response on the part of different nerve-cells to one and the same physiological reagent. Other observations also went to show that "the physiological behaviour of the different neurons which make up the nervous system of the body" under similar conditions is different. Professor Langley gave a demonstration of the stimulating action of nicotine on the superior cervical ganglion.

#### *Vascular Dilatation from Excitation of the Peripheral Segment of the Divided Posterior Spinal Nerve Root.*

Mr. W. M. BAYLISS (London) stated that he had found, in confirmation of the statements of Stricker, Morat, and others, that the posterior roots of the fifth, sixth, and seventh lumbar and the first sacral nerves contained fibres the excitation of which after separation from the spinal cord caused vascular dilatation in the hind limb. The effect was not abolished by morphine or other anæsthetic. The fibres passed directly into the lumbo-sacral plexus without entering the abdominal sympathetic. They did not degenerate when severed between the cord and the posterior root ganglion, and hence were not efferent from the spinal cord. They degenerated when the ganglion was extirpated and therefore had their trophic centres in the ganglion. They conformed in this respect to ordinary sensory afferent fibres. The name "antidromic" was suggested by Mr. Bayliss for the process by which such nerve fibres conveyed impulses in a direction contrary to that assumed by Majendie's law. No other vaso-dilator fibres passed to the hind limb, hence any reflex excitation of limb vaso-dilators must be "antidromic" in nature. This applied even to vaso-dilatation in the limb caused by excitation of the depressor nerve or central end of the vagus, also to the Lovin reflex produced by excitation of the anterior crural nerve. The corresponding vaso-dilators of the fore limb were situated in the posterior roots of the sixth, seventh, and eighth cervical and first thoracic nerves.

No effects of a like nature had up to the present been obtained with the kidney or intestine.

#### *Muscular Tremors in Parkinson's Disease.*

Dr. C. NEGRO and Dr. Z. TREVES brought forward a paper on Muscular Tremors in Parkinson's Disease. Dr. Negro had observed twitches or tremors of muscles in patients suffering from Parkinson's disease which he regarded as characteristic of the affection. They were especially marked in the triceps brachialis, when both voluntary and passive movements of the elbow-joint were carried out and particularly when passing from a state of moderate extension to that of flexion. In conjunction with Dr. Treves he had made a more accurate study of their nature. The method of recording them was a plethysmographic one. Von Kries, Schäfer, and others had recorded simple twitches superimposed on the larger contractions of voluntary tetanus. The strength or prominence of these was not uniform, but they showed a frequency as a rule of from 10 to 12 per second. They were not much influenced by fatigue or by the degree of resistance opposed to the contractions. Heavy weights, however, tended to reduce the rate to eight or nine per second. Schäfer had found that similar elementary twitches were present with the contractions caused by excitation of the cerebral cortex, no matter what the rate of stimulation employed. The regulation of their rhythm was therefore a function of the nerve-cell. The tremors of Parkinson's disease corresponded in every way except rate of occurrence with the foregoing observations. Their average rapidity was from 6.4 to 5.6 per second. Hence it must be inferred that in this affection the nerve-cells were unable to emit a series of impulses sufficiently rapid to produce the relatively smooth tetanic voluntary contraction of health. The pathology of the disease lay, therefore, in an altered condition of cerebral nerve cells. This explanation would also account for the great muscular weakness which Dr. Negro and Dr. Treves observed in the affection. It was hoped that their research would constitute a basis for further investigations into the nature of the pathological alteration underlying the disease. Figures were shown recording the tremors in one case. They were small undulations best marked during the phases of extension on the larger waves which represent variations of volume of the forearm.

## Looking Back.

FROM

THE LANCET, SUNDAY, OCTOBER 19, 1823.

*Chemical Discovery.*—M. Dobereiner, Professor of Chemistry in the University of Jena, gives an account of a discovery of the greatest importance. By a series of entirely new experiments, he has ascertained that platina, the heaviest of all elementary substances, when reduced into very fine particles, produces, by simple contact with hydrogen gas (the lightest of elementary substances), an electrical or dynamic combination, which, if brought into contact with hydrogen gas, or with atmospheric air, instantly dissolves itself, yielding fire and water. To prove this important fact by a brilliant experiment, M. Dobereiner makes hydrogen pass from a reservoir, by a capillary tube, curved below, upon pure platina in powder, which is confined in a glass tunnel, hermetically sealed at the point, so that the gas mingles with the atmospheric air before it touches the platina. The moment that the current of gas reaches the surface of the platina, the powder of that metal becomes red and burning, and this phenomenon continues as long as the stream of gas is directed upon it. This fine discovery will open a new field for physical and chemical researches.

*Caleb Quot'em Eclipsed.*—In the village of Harrington, between Evesham and Alcester, a sign-post, exhibited by the side of a barber's pole, thus announces the multifarious occupations, avocations and qualifications, of the industrious and indefatigable inmate.—James Tarrant, joiner, cabinet maker and builder, bricklayer and plasterer, repairs all kinds of machinery, keeps a journeyman carpenter to do all sorts of blacksmith's work, hangs church bells, pig killer, rings pigs and spays, bellows mender, tooth drawer and hair dresser, well sinker and thatcher, jobbing gardener.—N.B. Gamekeeper to the manor of Norton and Linchwick.

## Public Health and Poor Law.

### LOCAL GOVERNMENT BOARD.

#### ANNUAL REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Nottingham Urban District.*—Enteric fever was very prevalent in Nottingham during 1900 and Dr. P. Boobyer makes the defects of the conservancy system responsible for it. The prevalence would appear to be confined to certain districts. Special steel pails—as contrasted with wooden pails commonly in use—are employed for the excreta of all patients who are treated at their own homes, but, as Dr. Boobyer observes, a case only comes under preventive measures when its nature is sufficiently apparent to enable the medical attendant to notify, and by this time all the damage may be done. It is thought that the wooden pails absorb the excreta and give out infected dust. The influence of excrement disposal on, or rather its association with, the prevalence of enteric fever is well shown from the fact that with pail-closets one case occurred in every 92 houses, with midden-privies one in every 20, and with water-closets one in every 407. Dr. Boobyer has also observed that there is a concentration of cases to the leeward of the refuse heaps, an association which has been observed for the last three years.

*Portsmouth Urban District.*—Dr. A. Mearns Fraser reports that an effort is being made in Portsmouth to erect a sanatorium for tuberculous patients by means of voluntary subscriptions. He thinks that if this praiseworthy attempt fails in its object the town council, as the sanitary authority, should take up the matter and carry it out well. As he observes, large sums are being expended annually upon the prevention of enteric fever, scarlet fever, and diphtheria, whereas practically nothing is being expended upon the direct control of tuberculosis, and this notwithstanding the fact that the three diseases just mentioned exacted a death-toll in Portsmouth in 1900 only a little in excess of half that caused by the tubercle bacillus. There were no fewer than 1083 cases of enteric fever notified in Portsmouth last year, but the fatality-rate (8.49 per cent.) was fortunately not high. Dr. Fraser is unable to account for the prevalence of the disease, but its main incidence seems to have been on the poorer and less sanitary portions of the town.

*Bromsgrove Urban District.*—Dr. H. Cameron Kidd has in his estimate of the population of this district come very near to the census figures, the former being 8500 and the latter 8416. Dr. Kidd took the inhabited dwellings in the district as the basis of his calculations and he has every reason to be gratified with the result. Bromsgrove is doing good work in the matter of the control of tuberculosis, and it is encouraging to find so small a district as this emulating the practices of our large towns in this particular. Unfortunately the neighbouring sanitary authorities are not equally alert, and a proposal from Bromsgrove that there should be combination for the purpose of appointing a veterinary inspector did not receive adequate support. Dr. Kidd has, however, been able to induce his district council to adopt the scheme which is in operation at Ludlow under the advice of Dr. C. B. Cranstoun, the medical officer of health. Samples of milk from each dairy in the town are, after due notice, examined for tubercle bacilli, and if such bacilli are found the dairyman is summoned for selling "unsound milk," and ordered to stop the supply until it is proved to be pure. We presume that this means until no tubercle bacilli are to be detected therein. Moreover, the tuberculin test is applied to all cows supplying the dairy. This is very satisfactory, and Dr. Kidd is to be congratulated on having brought the scheme into operation.

*St. Helens Urban District.*—Dr. F. Drew Harris furnishes in his current annual report an interesting detailed account of the infant milk depot at St. Helens which has been carried on after the fashion of the original depot at Fécamp in Normandy. The subject is of considerable interest at the present moment owing to the discussion which has recently taken place in our columns upon the merits or demerits of boiled milk. A small six-roomed house was procured in a convenient position in St. Helens, and the several rooms were appropriated to one or another purpose connected with the scheme. In one room are contained the sterilisers and the bottle-washing machine, and in another

the baskets containing the supplies of bottled milk for each customer are stored. In another room the babies are weighed from time to time. The sterilised humanised milk for the infants is prepared by means of the dilution of, and the addition of cream and sugar to, good cow's milk. The milk is then placed in small stoppered bottles of some five ounces capacity, the stoppers are closed and the bottles are placed in the steriliser. By an ingenious device the steam is subjected to slight pressure by means of which its temperature is increased by about 2° C. When the thermometer registers 102° C. the time is noted and the bottles are kept at that temperature for 45 minutes, the whole operation lasting, it appears, from three to three and a half hours. We are assured that by this means the milk does not possess anything approaching a "boiled" taste and that such milk has been kept in the closed bottles for more than a month. When the heating process is ended the fire is raked out and the bottles are allowed to cool. They are then taken out and placed in baskets each of which holds nine bottles—i.e., six feeds for the day and three for the night. The quantity of the milk is adjusted according to the age of the child. Before use each bottle is placed in a little hot water, the stopper is removed, and a teat is fitted to the bottle direct. Every Wednesday the babies are brought to be inspected and weighed and the records are entered in a book. The number of children on the books has steadily increased and in August, 1900, over 140 were being fed. As yet it is difficult, Dr. Harris tells us, to furnish reliable statistics as to the results of the method, but there is evidence pointing to the conclusion that the infantile death-rate has been very markedly reduced thereby: indeed, the saving of life would appear to be about 86 per 1000. It seems, too, that during the hot weather of August many cases were brought to the depot in the last stages of diarrhoea and obtained the greatest benefit from the humanised milk. Dr. Harris also supplies his readers with the figures for Fécamp which show excellent results from the system. A depot has also been opened at Havre, and here, too, the results seem very promising. In England, Liverpool, Dukinfield, and Ashton have already started depôts, and in Belfast one is in course of construction.

*Bath Urban District.*—The Bath Town Council have decided to supply diphtheria antitoxin gratuitously to all those who cannot afford to purchase it, and this proviso will, we expect, be found in practice to have a wide application. Small tubes containing 800 Ehrlich-Behring immunity units are also provided for persons who have been exposed to infection. As Dr. W. H. Symons remarks, the prevention of one case of diphtheria which would be treated at the isolation hospital at the public expense would more than cover the cost of antitoxin for many years. The Bath Town Council have also a supply of plague serum and vaccine ready for emergency. These are praiseworthy provisions, and we are led to reflect as to how many sanitary authorities in this country are equally as ready as Bath in this sense. The voluntary notification of phthisis is in force in Bath and Dr. Symons has apparently been endeavouring to persuade the Great Western Railway Company to take action to prevent infection from spreading through the agency of railway carriages.

*Bedford County District.*—Dr. George Newman, in his annual volume, which summarises the reports of the district medical officers of health, devotes a small section to "Proceedings of the County Council Relating to Public Health." Such proceedings have not, we gather, unduly taxed the time of the Bedfordshire county councillors. Their total exertions in this sense seem to have taken the form of resolutions respecting the Bedford sewage farm, the distribution of communications with respect to the provision of diphtheria antitoxin by district councils, and as to the prevention of phthisis. Action was also taken in reference to the Biggleswade water-supply, and the medical officer of health was instructed to report upon the isolation accommodation of the county. These actions, however, although few in number, are steps in the right direction.

#### VITAL STATISTICS.

##### HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6556 births and 3498 deaths were registered during the week ending Oct. 12th. The annual rate of mortality in these towns, which had declined from 21.6 to 15.6 per 1000 in the seven preceding

weeks, rose again to 15.9 per 1000 last week. In London the death-rate was 15.0 per 1000, while it averaged 16.5 in the 32 large provincial towns. The lowest death-rates in these towns were 9.3 in Derby, 9.7 in Croydon, 11.6 in Swansea, 12.0 in Cardiff, 12.6 in Plymouth, and 12.7 in Birkenhead; the highest rates were 19.6 in Hull, 20.8 in Manchester, 21.7 in Salford, and 22.5 in Newcastle. The 3498 deaths in these towns last week included 485 which were referred to the principal zymotic diseases, against 732, 634, and 525 in the three preceding weeks; of these, 217 resulted from diarrhoeal diseases, 93 from diphtheria, 55 from "fever" (principally enteric), 51 from scarlet fever, 34 from measles, 32 from whooping-cough, and three from small-pox. The lowest death-rates from these diseases were recorded in Derby, Birkenhead, Huddersfield, Halifax, and Bradford; and the highest rates in West Ham, Salford, Sheffield, and Hull. The greatest proportional mortality from scarlet fever occurred in Swansea, Preston, and Halifax; from whooping-cough in Newcastle; from "fever" in West Ham and Portsmouth; and from diarrhoeal diseases in West Ham, Wolverhampton, Salford, Hull, Sheffield, and Gateshead. The mortality from measles showed no marked excess in any of the large towns. The 93 deaths from diphtheria in these towns included 54 in London, five in West Ham, five in Leicester, and four in Liverpool. Three fatal cases of small-pox were registered in London, but not one in any of the 32 large provincial towns; the number of small-pox patients under treatment in the Metropolitan Asylums hospitals at the end of the week was 175, against numbers which had increased from 13 to 169 on the eight preceding Saturdays; 37 new cases were admitted during the week, against 37, 44, and 51 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had increased from 2994 to 3159 at the end of the five preceding weeks, had further risen to 3280 on Saturday last; 422 new cases were admitted during the week, against 427, 460, and 426 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 124, 137, and 132 in the three preceding weeks, increased again last week to 186, but were 55 below the corrected average. The causes of 39, or 1.1 per cent., of the deaths in the 33 towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Nottingham, Salford, Bradford, Hull, and in 16 other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Manchester, Halifax, Sheffield, and Sunderland.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 17.8 to 14.5 per 1000 in the five preceding weeks, rose again to 16.1 during the week ending Oct. 12th, and showed an excess of 0.2 per 1000 over the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 6.2 in Perth and 10.4 in Paisley to 17.7 in Dundee and 23.6 in Greenock. The 513 deaths in these towns included 32 which were referred to diarrhoea, seven to scarlet fever, six to measles, six to diphtheria, six to "fever," and five to whooping-cough. In all, 62 deaths resulted from these principal zymotic diseases last week, against 73 and 82 in the two preceding weeks. These 62 deaths were equal to an annual rate of 1.9 per 1000, which was 0.3 below the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of diarrhoea, which had been 42 in each of the two preceding weeks, declined last week to 32, of which 18 occurred in Glasgow, four in Edinburgh, three in Dundee, three in Leith, and two in Aberdeen. The deaths from scarlet fever, which had been two, four, and seven in the three preceding weeks, were again seven last week, and included four in Greenock and two in Glasgow. The fatal cases of measles, which had been five, 12, and 14 in the three preceding weeks, declined again last week to six, of which five were registered in Glasgow. The six deaths from diphtheria corresponded with the number in the preceding week, and included three in Edinburgh and two in Glasgow. The fatal cases of whooping-cough, which had been seven in each of the two preceding weeks, declined last week to five, of which three occurred in Edinburgh. The deaths referred to different forms of "fever," which had been six, seven, and six in the three preceding weeks, were again six last week

and included four in Glasgow. The deaths from diseases of the respiratory organs in these towns, which had been 101 and 77 in the two preceding weeks, further declined last week to 75, and showed a decline of 29 from the number in the corresponding period of last year. The causes of 16, or more than 3 per cent., of the deaths in these eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23.4, 17.8, and 19.9 per 1000 in the three preceding weeks, declined again to 19.7 during the week ending Oct. 12th. During the past four weeks the death-rate has averaged 20.2 per 1000, the rates during the same period being 15.1 in London and 15.6 in Edinburgh. The 142 deaths belonging to Dublin registered during the week under notice were only slightly below the number in the preceding week, and included 21 which were referred to the principal zymotic diseases, against 30, 17, and 20 in the three preceding weeks; of these, 14 resulted from diarrhoea, six from "fever," and one from whooping-cough. These 21 deaths were equal to an annual rate of 2.9 per 1000, the zymotic death-rates during the same period being 1.9 in London and 1.8 in Edinburgh. The fatal cases of diarrhoea, which had been 20, 11, and 9 in the three preceding weeks, rose again last week to 14. The deaths referred to different kinds of "fever," which had been three, three, and eight in the three preceding weeks, declined again to six last week. The 142 deaths in Dublin last week included 36 of children under one year of age and 29 of persons aged upwards of 60 years; the deaths of infants showed a slight increase, while those of elderly persons were considerably below the number in the preceding week. Six inquest cases and five deaths from violence were registered; and 39, or more than one-fourth, of the deaths occurred in public institutions. The causes of 14, or nearly 10 per cent., of the deaths in Dublin last week were not certified.

### THE SERVICES.

#### ROYAL NAVY MEDICAL SERVICE.

The following appointments are announced:—Staff Surgeon A. J. Pickthorn to the *President* for three months' hospital duty. Surgeons: H. W. G. Green to the *Majestic*; E. Sutton to Plymouth Hospital; R. B. Scribner to the *Shearwater*; and M. L. M. Vaudin to the *Wildfire* for the *Immortalité* and Naval Barracks.

#### ROYAL ARMY MEDICAL CORPS.

Major Henry James McLaughlin to be Lieutenant-Colonel. Dated July 27th, 1901. Lieutenant Robert Longfield Davies resigns his commission. Dated Oct. 12th, 1901. Civil Surgeon Stafford Adye-Curran to be Lieutenant. Dated July 26th, 1901. Major H. M. Sloggett is posted to the Station Hospital, Western Heights, Dover, for temporary duty. Surgeon-Major J. Mill, A.M.R., has assumed temporary medical charge of troops, Station Hospital, &c., Leith Fort. Lieutenant-Colonel H. Charlesworth is posted to Portsmouth for general duty. Lieutenant C. Thompson has joined at Aldershot and is posted to the Depot. Captain H. D. Mason is appointed Adjutant of the Manchester Companies of the Volunteer Medical Staff Corps. Major W. A. Morris has joined at Aldershot, and is posted to the Cambridge Hospital for duty.

#### VOLUNTEER CORPS.

*Artillery*: 1st Cardigan (Western Division, Royal Garrison Artillery): Abraham Thomas to be Surgeon-Lieutenant. *Rifle*: 1st (Brecknockshire) Volunteer Battalion the South Wales Borderers: John Griffiths to be Surgeon-Lieutenant.

#### VOLUNTEER MEDICAL STAFF CORPS.

The Glasgow Companies:—Donald James MacKintosh to be Surgeon-Lieutenant.

#### SOUTH AFRICAN WAR NOTES.

The following have been discharged from hospital to duty:—Major J. H. Brannigan, R.A.M.C., Colonel J. Lane Notter, R.A.M.C., Captain J. Grech, R.A.M.C., and Civil Surgeon Philip William James.

Lieutenant-Colonel J. G. MacNeece, R.A.M.C., Captain G. S. McLoughlin, R.A.M.C., Lieutenant J. W. H. Houghton, R.A.M.C., and Civil Surgeons R. H. Browne

and E. H. Ridley left Port Natal for England on Oct. 12th in the *Orcana*.

Surgeon-Lieutenant-Colonel C. R. Kilkelly, C.M.G., Grenadier Guards, Principal Medical Officer of the Imperial Yeomanry Hospital, in his returns of the Elandsfontein Hospital states that on Sept. 20th there remained in that hospital eight officers and 119 non-commissioned officers and men, the total admissions at that date having been 257 patients.

Mr. Douglas Drew, F.R.C.S., consulting surgeon of the Imperial Yeomanry Hospital at Pretoria, together with several nursing sisters and other time-expired members of the staff, have now returned to this country.

#### DEATHS IN THE SERVICES.

Captain Frederick John Gaine, R.A.M.C., on Oct. 8th, aged 31 years. He joined the Army in 1897 and served in the Nile Expedition in 1898 and the expedition to Khartoum (Egyptian medal with clasp and British medal).

The appointment of assistant surgeon to the Royal Military College, Sandhurst, will be vacant in December, Lieutenant-Colonel F. Gillespie, A.M.S., having sent in his resignation.

## Correspondence.

"Audi alteram partem."

### NOTIFICATION OF INFECTIOUS DISEASE.

To the Editors of THE LANCET.

SIRS,—I am reminded by your annotation in THE LANCET of Oct. 12th, p. 987, on "Medical Officers of Health and Diagnosis," of a letter which I wrote to you almost exactly a year ago<sup>1</sup> *apropos* of "The Notification of Plague," the suggestions of which you did not see your way to accept at that time, but may possibly now come to see in a different light. I gave it as the result of experience that the present forms of notification under the Act—i.e., of particular diseases named therein and presumed to be completely recognised *before* notification—tend to undue delay; and that "what is desirable in the public interest is the earliest possible communication to the sanitary authority not of a fully-formed diagnosis but of even a reasonable suspicion, founded on stateable facts, of infection." In the issue you have raised as regards Mr. A. Wynter Blyth's (academic) dictum "that the diagnosis of cases is no part of the duty of a medical officer of health," I am at one with you (only, if possible, more so!). It would be indeed a most perilous position were it to become accepted that a medical officer of health, with his larger experience and wider knowledge of the surroundings, could do nothing but sit still and wait till the identity of a doubtful case of acute disease had become perfectly plain to the possibly inexperienced, possibly prejudiced, mind of a junior who may very likely never have seen a like case before, and may without much blame, or at any rate without a clear notion of the mischief he is doing, linger over a diagnosis for a week or more, while the disease is all the while making havoc. In Dr. T. Colvin's case alluded to in my former letter 18 days of very acute disease elapsed before the diagnosis of plague was made, and it is even now very doubtful if the diagnosis would have been made at all, but for the happy accident of Dr. Colvin's having been then sent for, he being already familiar with the symptoms. Yet these symptoms were such as might very easily and certainly have suggested an infectious disease of some kind, not only to a medical man but to any ordinarily intelligent observer. I hold that no one in such cases as these—or, indeed, in any cases where the surroundings give rise to suspicion—can be exempted from the legal or moral responsibility of communicating the facts, or even his suspicions about them, to the authorities, and that it is the clear duty of the medical officer of health to encourage all such early information in the public interest (with or without a diagnosis); and further, to clear up the facts as well as he can, to correct the suspicions if necessary, and thus to make, or to assist in making, the diagnosis on which he is to take action. To do this amicably, courteously, and without giving offence

requires tact no doubt, and may not always be possible; but if the medical officer of health is not in a position to do this it may be taken as certain that nobody else will, and so doubtful cases of infectious disease must needs go on smouldering indefinitely, till they clear themselves up by reproducing themselves in forms more easily recognised, probably when too late. I hold that the Notification Acts should be amended so as to invite, rather than compel, notification even of suspicious cases of infection by anyone cognisant of the facts, and that the medical officer of health, as the neutral and impartial servant of the public, is the proper person to make the diagnosis in all cases admitting of reasonable doubt. Will you kindly read over again my letter aforesaid in the light of this new aspect of the case and give us once more your views upon it?

I am, Sirs, yours faithfully,

Edinburgh, Oct. 12th, 1901.

W. T. GAIRDNER.

P.S.—I had not access to the *Times* of Oct. 8th at the time of writing the above, but after a most careful perusal of the letters of Dr. David Roxburgh and Mr. Wynter Blyth on which your remarks are founded, I have no hesitation at all in giving my unqualified support (*valeat quantum*) to the contention of the former as against the latter. It is not without a sense of surprise (founded on my Scotch experience) that I read in the fourth and fifth paragraphs of Dr. Roxburgh's letter how grudgingly, and, as it were, unwillingly, the St. Marylebone authorities are accustomed to receive the notification of "doubtful" cases; for, as Dr. Roxburgh well says, it is obvious that the "doubtful" cases are the ones which create epidemics; and "medical men will not notify them if the authorities persist in refusing to share the responsibility, as they do in St. Marylebone, and probably elsewhere in London, but certainly not in Glasgow, where I (Dr. R.) was educated." I have only to add that from my own personal knowledge I can affirm that Dr. Roxburgh is well entitled to speak thus.

### "THE NEW CHIEF MEDICAL OFFICER FOR CAPE COLONY."

To the Editors of THE LANCET.

SIRS,—Some weeks ago I was surprised and pained to read in *Greater Britain* a very venomous and untruthful attack against my friend and late colleague, Dr. A. John Gregory. The statements made in that journal were absolutely devoid of any foundation whatever and such as would not be credited by any respectable medical man in South Africa. Had the matter rested there I should have advised my friend to ignore it entirely. Later, however, it came to my knowledge that Dr. Scholtz of Cape Town had brought forward a resolution at the Medical Council condemning the action of the Government in appointing Dr. Gregory to the post of medical officer of health for the Cape Colony, vacant by my recent resignation, and that Dr. Stevenson had not been ashamed to second it. The proposer and seconder alone supported the proposition and the other members were not sparing in expressing their opinion as to the nature of the resolution.

Up to this time I had not had any communication with Dr. Gregory on the subject, but I then asked his permission to refute the statements which had been published concerning him because he was debarred by his position from doing so himself. Dr. Gregory replied asking me to leave the matter alone. He said that the identity of the author of the statements was an open secret and that he attached no importance to the incident. Of course, I obeyed him. I should have continued to comply with my friend's request to mind my own business and to leave his alone had the matter rested there. But the thing takes a different aspect when it is published in a medical paper of acknowledged standing, such as THE LANCET, and I wish you to publish the facts as I know them and as I verily believe the author of the slanders in *Greater Britain* knew them when he made his communication.

Dr. A. John Gregory was first employed by the Cape Government to give professional advice and assistance in taking the last census. He did that work well and so successfully demonstrated to those then in power the necessity for employing a medical officer of health that it was decided to create the office. I have not the least doubt that Dr. Gregory would have been elected to the new appointment, which he already filled as acting medical officer, only

<sup>1</sup> THE LANCET, Oct. 13th, 1900, p. 1496.

pressure was brought to bear on the Ministry and I was selected. Had I known the strong claims Dr. Gregory had to the appointment I should certainly not have been a candidate, but I knew nothing about it until I had been appointed and had resigned my position at home. Many men in Dr. Gregory's place, disappointed at losing a post to which they had every reason to suppose they would be elected and having to submit to a consequent reduction of pay from £1000 to £600 per annum, would have set to work to prove to the Government that my election was a mistake. Dr. Gregory, however, is absolutely incapable of acting in such a way. I frankly explained to him that I had burned my boats and could not go back. He accepted the position with the best grace possible and, instead of an enemy ready to point out and rejoice at my many faults, I found a friend ever ready to assist me in all possible ways, whose experience of South Africa was invaluable to me, to whom the Colony with its many peculiarities was entirely new.

The statement that Dr. Gregory "seems to have spent the greater part of his time in the Colony not so much in acquiring a knowledge of sanitary matters and administrative experience in the details of public health as in one of the departments of the Cape Town Colonial Office," if correctly quoted or paraphrased by you, is a deliberate misstatement on the part of your informant. Excepting during the short time he was occupied on the census (and you will appreciate how essential it is that a medical man should be associated with such work and the fund of local information a medical man so occupied must have acquired), Dr. Gregory has been entirely employed in public health work, first as acting medical officer of health, then from August, 1895, to August, 1900, as assistant medical officer of health, and since August, 1900, as medical officer of health for the Colony.

Whether when Dr. Gregory came to the Cape he had ever held a public health appointment I am unable to say; I never asked him. I found an exceptionally able colleague and that was all I cared about. But at any rate he must have given a certain amount of attention to the subject of public health matters, because in 1891 he obtained the Diploma of Public Health of the Conjoint Board. Few men have had a training better suited to a health officer. Dr. Gregory began life as a civil engineer, and the knowledge he then acquired is clearly shown whenever he has to deal with by-laws relating to construction and sewers.

When I came out to South Africa I found that Dr. Gregory had already drafted a Public Health Act which was admirably adapted to the colony. I am afraid that draft Act of his deprived him of the appointment in 1895. Every municipality was up in arms. The author of the Act was by no means a *persona grata*. Pressure was brought to bear and he lost the appointment. There is no doubt that had the Act, as Dr. Gregory originally drafted it, been enacted, instead of the farce now on the Statute Book, Cape Town would not have been in the filthy condition it was when the plague made its appearance. In connexion with the plague the Cape Colony owes a debt of gratitude to Dr. Gregory. It was Dr. Gregory who demonstrated that plague had already reached Lorenzo Marques in 1898 and that a case had even penetrated inland as far as Middleburg in the Transvaal. Again, it was Dr. Gregory who detected plague on the steamship *Kilburn*. I was ill in bed at the time, though I got up to superintend the plague camp. It was Dr. Gregory who recognised plague at King Williamstown, and it is due to him it was stamped out. Again, it was Dr. Gregory who showed that rats had been dying from plague at the south arm of the Cape Town docks, although one expert said they were suffering from a new disease and suggested it might be beneficially introduced into India, and it was Dr. Gregory who established the diagnosis of plague in the case first recognised and who traced out some of the preceding cases. Had Dr. Gregory's instructions been implicitly carried out, had the rats which first died been put into the bottles he had provided for such a contingency, and had the animals been sent to the laboratory, there is no doubt whatever that the danger would have been detected months previously, and who can say whether it might not then have been possible to frustrate the epidemic. It is hardly conceivable that such an order could have been so scandalously disregarded and that disobedience entailing so serious a result should have escaped censure, much less punishment. The work connected with the two last-mentioned invasions Dr. Gregory had to superintend

entirely, as I was away from Cape Colony; but though I was not present I have had ample opportunity by means of printed documents and letters from various medical friends to know all that occurred.

It is disgusting to find that, after working night and day, at first in face of much distrust and opposition, and eventually demonstrating in the most brilliant manner his capacity to fill the post to which he has been elected, two medical men could be found to bring forward such a proposal as that put before the Cape Medical Council.

I will not apologise for inflicting a long letter on you, as I am defending a valuable public servant who is being badly used and who is so placed that he cannot defend himself. My friend is by no means perfect. He is too straightforward and impatient of humbug to be diplomatic, and his language, while always correct, is frequently unnecessarily blunt, and that peculiarity occasionally makes him enemies. But I maintain that Dr. Gregory has a high conception of his duty, that he acts up to it and is incapable of a mean or unkind action, and that he is eminently qualified for his position. I greatly regret that circumstances have severed our official connexion.

I am, Sirs, your obedient servant,

GEORGE TURNER,

Medical Officer of Health for the Transvaal.

Office No. 12, Government Buildings, Pretoria, Sept. 18th, 1901.

P.S.—I see that one correspondent signs himself "Fair Play." This reminds me that the late Dr. Alfred Swayne Taylor, speaking about anonymous letters, used to say that they were signed "Ajax," "Audax," and all sorts of words ending in "ax," excepting "mendax"; but I suppose a signature is *une quantité négligeable* for the Greater Britain people.

\* \* We are glad to publish Dr. George Turner's vindication of Dr. Gregory. The inconvenience caused to Dr. Gregory (and we extremely regret it) is a cogent illustration of the need that exists for a British medical man to keep his name upon the Medical Register. The presence of Dr. Gregory's name and qualifications upon the Register would have shown us that he possessed the D.P.H. qualification, and our remarks, of course, would not have been made.—ED. L.

## THE SANITARY STATE OF TORQUAY.

To the Editors of THE LANCET.

SIRS,—It is with much reluctance that I write to call your attention to the serious contamination of the air of a large portion of Torquay, and it is only after finding that repeated representations on this subject to the town council from myself and others have failed to awaken them to anything like a just appreciation of the state of matters that I appeal to you on public grounds to inquire into things of such vital importance to a large number of people, a considerable portion of whom have come into the place for the benefit of its air.

Torquay, as I may remind you, is spread over an extensive area of hilly ground which, roughly speaking, is of square shape, presenting three sides to the sea and one to the high tableland of Dartmoor. The mildness of its climate both in summer and in winter is dependent upon these sources of air-supply, and in particular the coolness of its summer on the higher ground is largely due to what used to be the pleasant breezes which blow down from the moorland. To safeguard such breezes from contamination would strike most people as a matter of primary importance, not only to the health of the inhabitants, but to the very existence of the town as a health resort. But apparently the governing body of the town thinks otherwise, for whilst with commendable zeal it has freely spent the public money to secure an uncontaminated water-supply from the moors it has with singular perversity done its best to contaminate the moorland breezes by placing under the worst possible local conditions a refuse destructor in that part of the town which looks towards the moors.

I will now try to explain the peculiar features of the site. Of the large area over which the town spreads the valleys for the most part are closely packed with houses, whilst on the hills and slopes the houses mostly stand in gardens. In this way a very long sinuous limestone valley forms a kind of backbone to the town, its lower part being now called Fleet-street and Union-street, whilst its upper part is called the

Upton Valley. It is along the Upton Valley that the town has grown outwards towards the moors, and its further part is closely packed with houses occupied by some of the poorer classes of the community. The valley finally ends in a narrow gorge, which is almost closed by two lofty limestone cliffs. Now what was the site chosen for the chimney of the destructor? The top of a hill, every one would naturally answer, so that the fumes might be wafted away in the upper currents of air far above the town. No; it is placed down in the valley. And where in the valley? At the base of the cliffs and in the angle between their faces. And where is the chimney-top? The chimney, tall and ugly as it is, just reaches to the top of these cliffs, so that it actually leaves off just where it ought to begin. What follows from the violation of every principle that should have guided the *homo sapiens* in such a work might have been easily anticipated. When the wind blows strongly, and more especially when it is northerly or westerly, currents of air pour over the cliffs in cataracts, sweeping down the smoke and fumes issuing from the chimney and rolling them about till they impinge upon the higher ground encircling the valley. And whatever the direction of the wind may be some part of the surrounding district must suffer. Thus my own house, being situated to the south of the chimney and on a level with its top, with a northerly wind the smoke-fumes are blown straight to my quarter, filling my garden and my rooms with a nauseous and acrid belch. Again, with an easterly wind the Teignmouth-road suffers in like manner, and with a westerly wind various parts of St. Marychurch and the St. Marychurch-road, and so on. The nuisance causes serious injury to health, such as headache, nausea, sore gums, with a peculiarly nasty and persistent taste in the mouth, sore-throat, and sometimes vomiting and diarrhoea, and to people with delicate throats and chests it is a serious menace to life. Some invalid ladies living near me are cruelly persecuted by the nuisance, frequently having to rise in the night to shut down, not only the windows, but the chimney registers. I could name many similar instances. I myself have often been awakened in the night by a sudden invasion of my bedroom by the belch. Not only is all enjoyment of life thus effectually destroyed for the time, but a condition of nervous depression is induced by the foreboding that at any hour of the day or night one's house may be rendered almost untenable. Before the nuisance came I myself never experienced even a day's indisposition here, and in particular I used to enjoy in the summer the cool moorland breezes; but now I frequently suffer from headache and sore-throat, and I await these breezes with dread. There is a penalty for adulterating certain kinds of foods; is there none for contaminating that most necessary of all foods—air?

We have now passed through the third summer of the nuisance and its removal is not yet in sight. Forewarnings of the consequences of placing the chimney where it is were unheeded by the authorities. On Jan. 20th, 1897, the morning of the inquiry by the inspector of the Local Government Board (Colonel Durnford), a deputation consisting of some of the influential inhabitants of the district attended to protest against the proposed site, and a petition signed by owners and ratepayers, together with an important letter from Colonel Acton, was presented in support of their protest. Their objections were met by a well-organised band of town officials, the borough engineer producing a drawing which represented the chimney projecting apparently far above the cliffs. The chimney actually erected, as I have mentioned already, does not rise above the cliffs. It is, in fact, 50 feet shorter than the one sanctioned by the Local Government Board. Complaints respecting the nuisance have been met by the town authorities all along in a captious spirit, and every effort has been made to throw discredit upon them. It was not, indeed, until the spring of last year that they were admitted to have any foundation whatever. In the course of the ensuing summer the nuisance became so intolerable that a petition was numerously signed in the districts asking for its removal. St. Marychurch then had its own district council, which warmly took up the complaints of its own ratepayers, and so it sent a deputation to the Torquay Town Council for their presentation. I myself attended at the same time as one of the deputation of the Torquay petitioners. The mayor (Mr. Beavis), who was present when the deputation was received, promised complete redress. He said that everything should be tried to remove the nuisance and that if other measures failed the chimney should be removed. A new fume-cremator was promised to

begin with, and this, after the lapse of several weeks, was put in. After giving a long and patient trial to this remedy, the effect of which was to tone down the stink only to a slight extent, the nuisance at length became so intolerable that another numerously signed petition from Torquay and St. Marychurch, which had now become part of the borough, was sent in to the town council pointing out that whilst the appliances of the destructor might be still incomplete the main cause of the nuisance was the admittedly wrong position of the chimney. The petition earnestly requested the council to take into serious consideration measures for removing the chimney to a suitable site. On May 3rd the petition was placed in the hands of the present mayor who duly presented it to the council, by whom it was referred to the Destructor Committee. The latter, after a good deal of embarrassment, at length fetched down the patentee of the destructor in the hope that he might help them out of their fix. The only good resulting from the conference was some improvement in the stoking, for which there was abundant room, but the root of the evil remained untouched. Meanwhile the nuisance has continued and at times has been well-nigh intolerable. For instance, last Monday and Tuesday, in the squally weather which then prevailed, the condition of the atmosphere was simply disgraceful and a great many people were made ill.

The town council evidently will do nothing until strong pressure is brought to bear upon it from the outside public. Many of them apparently think that stink is a normal accompaniment of the atmosphere—at least, this is the only conclusion I can form from things which they have said. A written communication, too, which I have carefully preserved, from a high official of the town conveys the same impression. I apparently have spoken to deaf ears, but I venture to think that a few plain words from you, Sirs, may have some effect. I am, Sirs, yours faithfully,

HENRY HUMPHREYS, M.A., M.D. Camb., M.R.C.P. Lond.  
St. Marychurch-road, Torquay, Oct. 12th, 1901.

## THE ISSUE REGARDING THE ETIOLOGY OF PERNICIOUS ANÆMIA DEFINED "A DEFINITE INFECTIVE DISEASE."

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me to point out, to prevent any possible misunderstanding, that the interpretation put upon my recent work on the above subject by a reviewer in THE LANCET of Sept. 28th, p. 851, is in very truth, as he himself courteously admits it may be, quite "a false one"; and that all the difficulties he with great care points out arise out of his interpretation and have really no existence. The mistake has arisen from divorcing a single sentence from its context, both immediate and remote, notwithstanding that in my Preface I especially request that this must not be done.

If typhoid fever were thought to be a form of diarrhoea—a "pernicious diarrhoea"—producible by many causes, such as indigestion, bad food, weakness of constitution, wasting diseases, &c., and anyone asserted without further premiss that "the chief source or cause of the disease was drinking sewage-polluted water or sometimes, possibly, mere exposure to drain smells" (without the intervention of bad water), this would be nonsense, since it could be at once pointed out that many people drink sewage-polluted water or are constantly exposed to drain smells without contracting this particular form of diarrhoea. But as soon as it is made clear that this so-called "pernicious diarrhoea" cannot be produced by such general causes, but is in reality a special infective disease caused by a special infection, the first statement becomes quite clear. It is understood at once that sewage pollution or bad smells *per se* are not the primary cause, but merely the more immediate sources or causes which determine the onset of the disease in the particular case. And if one had not discovered or isolated the particular organism that constituted the special infection—as for many years was the case after it was shown by Sir William Jenner to be a special infective disease distinct from typhus fever—the most important point in its etiology would undoubtedly be the fact of its sewage origin. Without the slightest ambiguity of meaning, therefore, one can say that "*typhoid fever is a special infective disease of filth nature and of sewage origin.*"

Now, Sirs, it is a definite conclusion of this kind that I

have arrived at regarding "pernicious anæmia." It is not merely a form of anæmia, but a *special infective disease*. The sentence which has misled so grievously (and has been so surprisingly interpreted since it is made clear by the very statements quoted that that interpretation is quite wrong) is of the same character and in practically the same terms as the above statement with regard to typhoid fever. If applied to pernicious anæmia as a disease, which I considered could be produced by all sorts of general causes and morbid conditions (as is the generally accepted teaching), it would be absurd to say of it that its chief source or cause was some local sepsis in the mouth; for notoriously such sepsis is as common as pernicious anæmia is rare. *But it is not to any such general disease or morbid state that the statement is applied.* On the contrary, it is applied to a disease which, as the outcome of work detailed in the preceding 250 cases, I find to be "not merely a special anæmia but in reality a special and well-characterised infective disease—one that cannot be produced by any of the ordinary factors of anæmia, *however severe they may be*" (Preface), included among such factors by special mention being "dental caries, stomatitis, glossitis, and all other gastro-intestinal conditions" (p. 204); a disease of which I have to state with utmost emphasis as the outcome of facts detailed that "in my own mind no fact stands out more clearly in connexion with the etiology of the disease than that none of the above conditions—so-called 'causes'—can of themselves produce the disease of pernicious anæmia with all its characteristic hæmolytic changes" (p. 225).

When immediately following such statements (surely clear and emphatic enough) I go on (p. 227) to define the disease as "a special infective disease caused by a special infection," and proceed in the very next sentence to speak about this infection and the part that oral sepsis plays in connexion with it, it is quite clear that such words as "causes," "source of infection" are now being used in the strictly subordinate sense in which they are daily used in connexion with the onset of an infective disease—viz., not as the causes which determine the existence of the infection in the first instance, but those which determine its taking root in the body. [The question of the primary nature and source of infection, as a matter of fact, I leave quite open (p. 225).] It is a rôle of this kind—*of the utmost importance, but always subordinate to the special infection underlying the disease*—that oral sepsis and its local effects play in the etiology of pernicious anæmia. "The disease is a definite and well-characterised special infective disease—one in which oral and gastric sepsis plays an important antecedent and concurrent part" (Preface). What this part is I describe at great length—viz., creating the subacute and chronic catarrhal glossitis and gastritis, or in some cases enteritis, which enable the infection to take root (its "antecedent rôle"); in all probability also operating in another way—viz., by determining the degree of virulence of the special infection—an action exceedingly probable—or by acting along with it as a "mixed infection" ("concurrent" rôle).

Such is the clear and definite issue I have raised regarding the etiology of this disease. There is no dubiety about its character. It is brought out in every section of my recent work from the opening inquiry which heads the first chapter, "What is Pernicious Anæmia?" up to the final conclusions which I have just given. And to avoid all possible oversight I bring out these conclusions once more in the Preface. The issue is this: (1) "none of the ordinary factors which produce anæmia, however severe they may be, can produce this disease; (2) the disease is really a specially infective disease, characterised by intense hæmolysis (with anæmia) and other, hardly less definite and constant, toxic clinical features; (3) in the development of the disease—i.e., in enabling it to get rooted in the mucosa of the tongue, stomach, or intestine where it has its site—probably also in intensifying its virulence, long standing oral sepsis and its subsequent effects in the stomach and intestine are the most important etiological factors." And so of this "anæmia" (as of the "diarrhoea" of typhoid fever) I can say without the slightest ambiguity of meaning—as I do say—that "it cannot be produced by the ordinary factors causing anæmia (diarrhoea), however severe they may be; on the contrary, it really is a special infective disease.....of septic nature (of filth nature).....and of septic origin (of sewage nature)."

This being the issue clearly and emphatically set forth, it can be no less clearly met and dealt with—viz., by showing on extended grounds covering the morbid anatomy, infective nature, clinical features, and etiology of the disease:

1. That the disease with its distinctive hæmolytic changes *can be* produced by all ordinary causes of anæmia.
2. That it is *not* an infective disease limited to the mucosa of tongue, stomach, or intestine; in particular, that recurrent glossitis of a special, recurring, and peculiarly persistent character—the most obvious manifestation of its lesions—does not occur.
3. That sepsis—oral, gastric, or intestinal, singly or combined—plays no part in the development of the disease, as evidenced by the absence of their clinical or pathological manifestations—namely: (a) no history of oral sepsis or of stomatitis or soreness of mouth previously to or at the time of onset of the disease; (b) no history of periodic gastric trouble (nausea, sickness, or vomiting); (c) no history of periodical intestinal troubles (looseness or diarrhoea).

But if this issue is to be dealt with *it must not be obscured by ignoring the first two vital portions of it*, and by representing that the third alone is the chief, still less that it is the whole, issue raised by my work. Nor need it be so put that I have been led by interest in the subject of oral sepsis and its gastric effects to attach an undue importance to their presence and possible rôle in pernicious anæmia. For, as a matter of fact, as I have pointed out elsewhere, it has been the study of their rôle in pernicious anæmia that first directed my attention to, and led me to investigate, their possible importance in other and much simpler conditions. The matter is not one that is capable of being decided by any controversy, but only by observations on the disease itself in the light of the new class of facts now raised for consideration; and it is solely with a view to promote such further observations that I have now been induced to write.

I am, Sirs, yours faithfully,

Harley-street, W., Oct. 7th, 1901.

WILLIAM HUNTER.

## THE REORGANISATION OF THE ARMY MEDICAL SERVICES.

*To the Editors of THE LANCET.*

SIRS,—With your permission I propose to make a few remarks on this important national topic, apologising for the necessarily lengthened character of this communication. The report does not profess to take in hand all the recommendations made by the South African Commission, but, leaving the organisation of the Royal Army Medical Corps intact, it furnishes a scheme providing a body for carrying out these recommendations, while mainly contenting itself with the development of the medical *personnel* to the requirements of scientific progress and medico-military advance and rectifying recognised defects. How far the proposals are of a satisfactory character and how far the scheme is open to fair criticism are points on which probably much difference of opinion will exist. Personally I approach the subject from a present outside standpoint with an experience of some 35 years of the inner working of this departmental system, within the period embraced. Though the report is so far but a series of proposals it doubtless will constitute the foundation on which a Royal Warrant will be built and hence indicates the intentions of the War Office in the future of the corps in respect to the points touched upon. I arrange my remarks as follows.

1. *The constitution of the Advisory Board.*—It is to consist of four army medical officers, four civil medical men, and a representative of the War Office and of the India Office respectively. In it we recognise the old Consultative Board of the Crimean Committee reproduced, qualified by the addition of the civil medical element and of the officials referred to. Equally balanced as the components are it contains no deciding voice. The professional element predominates, but in the event of disagreement between the military and civil sections the deciding factor rests with the officials. It may be fairly questioned whether the proposed new board is an advance over the old board comprised of four selected army medical men of the highest grade with full experience of army needs, especially as at present constituted. The military section can be overruled by the six members with no close personal experience of army work and its requirements. And this point is of more importance as by Paragraph 7 this board has to submit a scheme dealing with war requisites—ambulances, transport, equipment of medical units, provision of *personnel*, &c.—and by Paragraph 14 the retention and promotion of officers in the service will be referred to it, including the appointment of a Director-General. It is true that by Paragraph 12—inspection of hospitals by a sub-committee—

some of its members may obtain a little personal experience of some of the army medical men, yet outside this it is difficult to perceive how the requisite knowledge for guidance in such matters is to be obtained sufficient to place them in a position equivalent to the four army medical men whose personal experience must be far in advance of them and whom conjointly with the War Office and the Indian officials they may override. And in respect to the inspection of military hospitals by a sub-committee, is such inspection to supersede that made by the principal medical officer of an army corps or district? and is it to be limited to the United Kingdom, excluding the numerous hospitals scattered abroad and possibly far more requiring the specified supervision?

2. *The Director-General.*—In the scheme the old process is continued which practically leaves the appointment in the hands of the Commander-in-Chief and so gives him a dominant control over the higher officers at least. It is true that the Commander-in-Chief is by Paragraph 17 to act "with the advice of the Advisory Board," yet it may be confidently anticipated that the selected man will require to be at least a *persona grata* to the Commander-in-Chief. The defect appears to be that there is no guarantee that the ablest and best man for the post will fill it, while there is full scope for the predilections and personal views of this military official which we know from the past may be anything but conducive to a well-organised and efficient medical corps. No less defective is the questionable responsibility of the Director-General. While apparently having no seat at the Army Board and subordinate to the combatant section of the War Office he is, by Paragraphs 18 and 19, held responsible for the administration of the army medical services, for promotion and for their general organisation, yet neither in respect to the provision of requisites for army needs nor to organisation nor to promotion has he a deciding voice, but the first of these rests by Paragraphs 6 and 7 with the Advisory Board (of which he is one among eight units) and the Secretary of State and the last is divided among the board generally subject to the control of the Commander-in-Chief. The arrangement as proposed permits of the assessment of future responsibility in these matters against the Director-General or the impersonal board, or the Secretary of State or the Commander-in-Chief as one or other paragraph may be regarded as binding; in other words, it provides a scapegoat or permits such a division of responsibility as to defy any personal application of it. If anything the responsibility of the future Director-General is lessened by the Advisory Board, while his subjection to the combatant branch as personified by the Commander-in-Chief remains in full force.

3. *The supply of medical officers.*—The increased rates of pay per annum, the charge and specialist pay, are decidedly conducive to numerical increase of applicants as compared with recent years, while on the other hand the requisite conditions are far more stringent, and the question is, which will be the determinate factor in the future supply? The candidate must produce such evidence as is required of character, conduct, professional ability, and fitness for a commission, he must be physically fit and pass a clinical and practical examination in medicine and surgery, following which he has to undergo instruction and examination at Netley and a similar process at Aldershot in prescribed subjects, the qualifying test being a percentage of 50 of the marks set and failure after a second attempt leading to rejection; if successful his position on the list is determined by the combined results of these three examinations. Considering that the candidate is already a qualified medical man, entitled to practise, the test for a commission is a stringent one and one, probably, which none but those above the average would care to face, especially when taken in conjunction with the subsequent tests.

4. *Conditions governing the future army career.*—After having served as a lieutenant for three years in a corps or army unit the officer may retire, or if well reported on may join the reserve for seven years at £25 per annum or continue on in the service. Should he select the latter he commences a series of examinations, three in number, guarding the approach to each step in rank, the qualifying test being either 40 or 50 per cent. of the value of the questions set, each examination being preceded by a separate course of study, taken at a specified time as a rule, the subjects becoming less professional and more of a medico-military and administrative character as the examinations progress, the results if of a high order leading

to a graduated acceleration of promotion, if below the qualifying test permitting of a second chance, failure in which entails retirement from the service. No pecuniary gratuity on retirement is allowed until after nine years of service when it amounts to £1000, and after 18 years when it is increased to £2500; hence, failure to meet the earlier examination requirements will necessitate the professional man commencing civil life unaided by any pecuniary reward for any service under nine years. Up to the rank of major seniority tempered by possible accelerated service governs the progress of the individual; for a lieutenant-colonelcy selection comes into force from a list of those qualified for administrative work as tested by the last required examination—the sixth from the application for admission into the corps—50 per cent. of the marks set being required; and for the higher grades selection prevails. The questions arise: Will not these numerous examinations, necessitating a high standard, operate as a deterrent to the young qualified man already wearied by the numerous tests required under the Conjoint scheme? And, moreover, provided the right men be obtained in the first instance, are they necessary reasonably to safeguard the service? Would not one examination after the entrance test, with gradations as proposed in accordance with standard passed, and selection to lieutenant-colonelcy onwards, suffice? That the principle is good may be granted, but the execution of it leaves much to be desired. The formation of a "bookworm" seems the likely result and not the good all-round officer which the service needs. Continuous study will be essential, and the thought occurs, Where is the time for obtaining all this theoretical knowledge and for the practical army work to be found? Where do reasonable recreation, social duties, and other scientific pursuits come in? And from the administrative point of view a difficulty in meeting the possible requirements will soon make itself felt. To permit of the application of the scheme a very decided increase of *personnel* is essential, not only for this provision but also for the lieutenants attached to corps or units, and will this increase be forthcoming? How will the foreign service be arranged, the lieutenant stage being apparently passed at home, so as to permit of the study leave, attendance at practice of civil hospitals and the acquirement of knowledge of the professional advances made? How can these be carried out under war or other pressure? How can the chances of each individual, scattered as the service is over such a wide area and with such variable opportunities of obtaining the required knowledge, be made equal—in other words, fair play given—in view of this graded acceleration of promotion operating at each step in rank? Whether the entry of men will equal the demands remains to be seen; but, the required numbers obtained, the difficulties of placing the scheme on a sound fair working basis cannot but be great, and probably will indicate it as unworkable should unfavourable conditions prevail. The system proposed seems overburdened by unnecessary restrictions.

5. *Promotion by selection to the administrative grades.*—This neglected and cast-off principle of the Herbert warrant is again revived, yet the grounds on which it is to be based are curiously omitted in the scheme. It is to operate for the rank of lieutenant-colonel and upwards, through the Advisory Board (including the Director-General) and rest in the Commander-in-Chief. What may be the respective powers of those having a voice in determining the result, what may be the strict responsibility of the Director-General in the matter, what may be the influence of the Commander-in-Chief, so far as opposing or supporting the principle or controlling its individual application; whether in this professional corps professional and scientific attainments shall receive full consideration or the old baneful course be followed, or what qualities shall be taken into consideration—these are all doubtful details. That this is not a mere academic question, but one of great practical value, will be apparent in view of the power resting in the Commander-in-Chief touching promotion, of the impotence of former professional departmental heads to safeguard the special provision of the Royal Warrant following the Crimean Commission touching selection for merit, and of the course taken in the past in advancing individuals over the heads of others. The grounds on which selection is to be based require to be stated and some guarantee given that the conditions shall be fairly and honestly observed, and this is a point well worth the careful consideration of any highly qualified and talented professional man before embarking on an army career. The past will not bear inquiry.

6. *Concluding remarks.*—That the scheme, as a whole, is based on right principles and is an honest attempt to remedy the defects will probably be granted, though whether the details are likely to effect the desired objects may be fairly doubted. The provision of brevet rank, charge pay for certain large hospitals (a tardy acknowledgment of the justice of the appeal made by some executive officers in India in the past without result), devolution of powers from the head office to the principal medical officers of corps and districts, provision of means of instruction in field medical duties at the headquarters of each army corps, and the relief of clerical work, all are of unquestionable value, though the separation of the medical officers of the Household Brigade from the corps can hardly be placed in the same category. Apparently the Netley School is doomed, though a substitute is provided in the proposed military hospital and Medical Staff College (Millbank?). The scheme falls short of that of Lord Herbert in the lack of provision for sanitary means and supervision—a detail fully justifying the exception taken by Professor A. Ogston—and this is a strange omission in view of the fact that the primary *raison d'être* of the corps is not curative but preventive medicine, and of the repetition in this war of former experiences of the enormous preponderance of disease over war injuries in the curtailment of efficiency of armies in the field. How far the scheme will bring about a corps capable of efficiently performing the duties entrusted to it to the benefit of the army and State will depend on the spirit in which it is met by the service at large—especially the combatant branch—and the official heads, and on the degree to which free play is given for action by the army and medical regulations. As was well put by Major-General Sir Ian Hamilton: "Recollecting that it was but a framework its scientific possibilities in sympathetic hands would be understood. There would come the rub—the hands must be sympathetic and kindly, and not only the hands of the War Office but those of the Government of India." Just so; the power residing in the Secretary of State for War and in the Commander-in-Chief—including under him the army sections under his influence and sway—to make or mar the scheme is beyond doubt, a fact fully attested by the action taken in the past ending in the destruction of the Magna Charta of the Medical Department, a Royal Warrant notwithstanding. And no one who has "gone through the mill" will doubt the power of army regulations and orders to bring to nought the best devised schemes which clash with the views of the military caste. The unfortunate feature in all such schemes, including warrants, is that there is no guarantee for their observance. So far as this one is concerned the aspirant for army medical service may fairly rely on his pay and on the recognition of his professional attainments to the rank of major, but in respect to provision of the means enabling him to meet the requirements of the numerous examinations, in respect to promotion to the higher grades through professional merit and scientific attainments, in respect to having full scope for the abilities he possesses and the desire to work, in respect to obtaining opportunities for scientific pursuits, he is in the hands of others, and past experience, unfortunately, is a warning against undue sanguineness on such and other points.

I am, Sirs, yours faithfully,

FRANCIS H. WELCH, F.R.C.S. Eng.,  
Surgeon-Colonel (retired), A.M.S.

Lee, Oct. 14th, 1901.

## MILD CASES OF SMALL-POX.

To the Editors of THE LANCET.

SIRS,—I am very glad to see by your leading article of Sept. 21st that Mr. Wynter Blyth has suggested that the Metropolitan Asylums Board should publish illustrations of actual cases of mild small-pox for the benefit of those practitioners who are unacquainted with the disease at sight. Would it not be a boon to students, teachers, and practitioners generally if the medical officers of the Board could be prevailed upon to issue a small series of similar illustrations? My experience of the early erythematous and hæmorrhagic eruptions of small-pox is that they are seldom recognised at their onset by physicians who have not had special experience of a small-pox epidemic. In common with many others I learnt to diagnose chicken-pox by studying the cases erroneously sent into a small-pox hospital during a small-pox epidemic. The hæmorrhagic varieties

of the ordinary infectious diseases are always worth portraying, to say nothing of the typical rashes of typhus fever, enteric fever, scarlet fever, measles, and rubella. Perhaps there might be added some of the rarer forms of diphtheria, with membrane on the conjunctiva or on open wounds, or even an illustration of the rashes which sometimes follow injections of antitoxic serum. I venture to extend the scope of the original suggestion because I do not know of any similar atlas already existing for infectious diseases. If, however, there is one, perhaps you or one of your readers will be so kind as to inform me.

I am, Sirs, yours faithfully,

Cairo, Oct. 1st, 1901.

F. M. SANDWITH, M.D. Durh.

## "THE AFTER-COMING HEAD; PREVENTION OF ASPHYXIA."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Sept. 21st, p. 815, Dr. Edwin Smith suggests the introduction of a catheter into the child's mouth in cases of breech presentation in which the head is delayed in delivery. In Barnes's "Obstetric Operations," second edition, 1871, page 198, it is stated: "You may sometimes get the tip of a finger in the child's mouth, and drawing this down, whilst you lift up and draw back the perineum, you may enable air to enter the chest. In this way I have kept a child breathing for 10 minutes before the head was born. Another plan is to pass a catheter or other tube into the mouth so as to give by means of a kind of artificial trachea communication with the external air, or better still Richardson's bellows." It will be seen, therefore, that this line of treatment was advocated 30 years ago. "There is nothing new under the sun," not even in midwifery.

I am, Sirs, yours faithfully,

C. H. L. JOHNSTON, M.D., L.R.C.S., and L.M. Edin.  
St. John, New Brunswick, Oct. 3rd, 1901.

## THE FORTHCOMING ISSUE OF THE MEDICAL DIRECTORY.

To the Editors of THE LANCET.

SIRS,—If you can spare a little space in the next issue of THE LANCET we shall feel much obliged by your warning your readers of the approaching publication of the Medical Directory for 1902. It is well known that the volume cannot be accurate unless all the latest information is supplied to us by the profession and various secretaries of medical institutions, and as we are now about to make up for the press any additions or alterations should be posted to us at once.

We are, Sirs, your obedient servants,

J. & A. CHURCHILL.

7, Great Marlborough-street, London, W., Oct. 12th, 1901.

## "A MEDICO-LEGAL SOCIETY."

To the Editors of THE LANCET.

SIRS,—I do not, of course, know who "M.D., D.P.H." may be, but I am quite with him and willing to become an original member of a medico-legal society, and to help to promote such a society.

I am, Sirs, yours faithfully,

FRED. J. SMITH,

Lecturer on Medical Jurisprudence, London Hospital.

Oct. 13th, 1901.

## "WORKHOUSE NURSING."

To the Editors of THE LANCET.

SIRS,—By some process of mental gymnastics Mr. F. R. Humphreys has persuaded himself that in my last letter I represented Miss Twining as stating that her plan had been annexed by Mr. Humphreys.

The opinion there expressed is my own and not that of Miss Twining and it has been deliberately formed after reading her writings, kindly sent by her and published before Mr. Humphreys thought fit to announce the plan as his own, and my object in drawing attention to this will have been attained now that Miss Twining's rights as the author of the scheme have been established. Is not Mr. Humphreys fluttering on rather a lofty perch when he charges me with "flagrant conduct" because I do not humbly withdraw my formed opinions at his august bidding? It is an unfortunate

characteristic of our public life that any ambitious amateur, if endowed with sufficient pertinacity, can always obtain a hearing and if backed with sufficient noise can sometimes overcome expert professional opinion. I hope Mr. Humphreys will give me an opportunity of joining issue with him in the pages of the "great monthly magazine."

I am, Sirs, yours faithfully,

F. S. TOOGOOD, M.D. Lond.

Lewisham Infirmary, High-street, Lewisham, Oct. 14th, 1901.

## CLUB PRACTICE.

*To the Editors of THE LANCET.*

SIRS,—I am instructed by the Stockton, Thornaby, and District Medical Association to lay before you the following facts. Some months ago this association unanimously passed a resolution that no member would accept or hold any appointment to a friendly, trade, or yearly society at less than an annual fee of 4s. for adults and 3s. for juveniles. The societies in question agreed to this, but now an amalgamation has taken place between certain of them and they are attempting to obtain the services of an outside medical man at a lower rate of remuneration. The members of the Association have pledged themselves to hold no professional relations with any medical man who may accept the post. By making these facts known in THE LANCET you will oblige, and at the same time may prevent any medical man applying for a post the remuneration for which is inadequate and its disadvantages necessarily very great. Thanking you in anticipation,

I am, Sirs, yours faithfully,

FRED. G. SMITH,  
Joint Secretary.

Oct. 13th, 1901.

## "TUBERCULOSIS AND HEREDITY."

*To the Editors of THE LANCET.*

SIRS,—I should like emphatically to endorse Sir W. Gowers's remarks in THE LANCET of Oct. 12th (p. 1007) as to the importance of heredity and predisposition in the etiology of tuberculous disease. At the present time the tendency is to exalt unduly the importance of extrinsic factors in the causation of disease and to ignore the intrinsic factors. Yet for preventive and therapeutic purposes the latter are often the more important, and that this is the case with tuberculosis I propose to show. The discovery of the tubercle bacillus was a great triumph for the bacteriologist, but it has not done much for the more effectual prevention and treatment of the disease. Long before its discovery remarkable diminution had been effected in the mortality from tuberculous disease in this country by the introduction of methods that tended to strengthen the predisposition of the organism against the disease, and to the continued operation of such factors the present diminishing mortality from the disease is undoubtedly due. Instead of being encouraged to persevere along these and kindred lines the profession has been misled by bacteriologists to entertain the delusion, that the disease may be prevented by exterminating the special microbes or by preventing their access to the body—both of which expectations are futile. Because a few living tubercle microbes were found in a roll of beef that had been cooked in the ordinary way a learned commission somewhat hastily concluded that the disease was therefore spread by eating such meat, &c. If this were so the tubercle mortality would have doubled during the last half-century, for the meat consumption per head has increased in that proportion; but the fact is that the tubercle mortality has diminished by more than one-half. Plenty of good meat—which generally contains some tubercle bacilli—is one of the chief safeguards of crowded urban populations against tuberculosis. Bacteriologists seem to forget that under modern conditions of life it is impossible for anyone to escape from the infection of tubercle; and all schemes for the prevention of the disease based on the contrary supposition are mere fads.

The more thoroughly post-mortem examinations are made the higher is the percentage of tuberculous lesions discovered; until when such examinations are made with the utmost scientific precision almost every body examined is found to present undoubted signs of tubercle. Thus, Naegeli reports that of 500 post-mortem examinations at the Zürich Pathological Institute undoubted signs of tubercle were found in no less than 97 per cent. of all the bodies examined. Now if this be so—and personally I believe it to be true—how can we account for 12 members out of a family of 13

dying from tubercle—as in a case of which I know—otherwise than by predisposition and heredity?

I am, Sirs, yours faithfully,

Clifton, Bristol, Oct. 14th, 1901.

W. ROGER WILLIAMS.

## WORKERS' RESTAURANTS.

*To the Editors of THE LANCET.*

SIRS,—In the course of my daily duties which bring me into close contact with the working girl of the West-end the pressing need of special restaurants for women and girls is constantly presenting itself. It is obvious that for the rapidly growing girl, whose strength is further taxed by sedentary occupations in close rooms for long consecutive hours, abundance of nourishing food is essential. In the workrooms of the dressmakers and milliners of the West-end there are thousands of young girls employed, from the child apprentice earning a weekly half-crown for "pocket-money" to the finished assistant who receives on an average from 15s. to 18s. per week. These are absent from their distant homes for periods of 12 hours and longer, during which time a nourishing meal is unobtainable.

The prices of the West-end restaurants are, needless to remark, beyond the reach of these workers. At the mid-day break the only alternative is a lunch at the tea-shop, where the few pence are spent in worse than useless fare, or the consumption in the workroom of the unappetising dry sandwich. Is it to be wondered at that so many girls break down at the onset—that many more struggle wearily on, battling with that arch enemy to young womanhood, anæmia, which is the forerunner of even worse ills? The point I wish to emphasise is that at present these girls are unable to procure the food of which they are so much in need. I am convinced that it would not be difficult to remedy this state of things by starting special restaurants where good hot meals at cheap rates could be obtained; indeed, I am of opinion that it would be possible to raise capital for such a purpose, and if a sufficient number of these restaurants were started and well managed financial success might be counted upon and a small dividend paid to investors.

Employers would doubtless liberally encourage such an undertaking, and in so doing would be acting in their own interests, while I am sure that many of the ladies who wear the beautiful gowns and millinery which these clever workers produce would gladly become shareholders and so help to confer a boon on those who are labouring for them. I should be glad if employers of labour or others who may be interested in this question would communicate with me, with a view to putting the idea into practical form.

I am, Sirs, yours faithfully,

L. MARGUERITE O'KELL,  
Sanitary Inspector.

Town Hall, St. Marylebone, W., Oct. 9th, 1901.

## NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

*The Recrudescence of Plague in India.—Leprosy in Burdwan.—Original Observations on the Habits of Certain Mosquitoes.*

THE deaths from plague throughout India have been mounting up week by week, and the last return, for the week ending Sept. 14th, shows that 6386 deaths occurred as compared with 4822 in the previous week. The Bombay Presidency is severely affected, 5668 deaths being reported last week, against 4132 in the preceding week, and against only 593 for the corresponding week last year. Of this number 293 deaths occurred in Bombay city, 1235 in Belgaum, 1455 in Kolhapore, 1509 in Dharwar, 107 in Thana, 86 in Surat, 78 in Cutch, and 586 in Satara. In other parts of India the disease is not active, but Calcutta returned 18 deaths, Patna 20 deaths (this is a sudden increase), and Shahabad 32 deaths (a fresh outbreak). In Karachi there were 15 deaths, in Mysore 295, and in the Punjab 16. The chief changes during the week are the recrudescence in Bengal, the continued increase in Bombay city, and the decline in Mysore. The development in Bengal is especially serious because a few weeks ago it was almost clear and because during the last cold weather there was a high mortality in certain districts. Madras city has up to the present been free from plague,

but during the week ending Sept. 7th the death-rate was 105.9 per 1000. Cholera was responsible for 130 deaths, but the large excess in mortality during several weeks past is not satisfactorily explained. Bombay city has now a death-rate of 66.44 per 1000, the excess being partly accounted for by plague. The city of Calcutta, on the other hand, continues to show an exceptionally low death-rate. There is very little plague, cholera, or small-pox.

In a paper on leprosy recently read before the Calcutta Missionary Conference figures were given relating to the Leper Asylum at Raneegunje which show that the disease is four times as prevalent in the Burdwan district as in the rest of India and that of those in the asylum 33 per cent. had either leper parents or a taint in the family. Of the children born after leprosy had been contracted 9 per cent. became lepers. These are higher figures, I believe, than those of the Leprosy Commission.

A paper recently read before the Asiatic Society of Bengal upon the Habits of the Common Grey Mosquito gave detailed evidence that the female may live in its adult stage for nearly five weeks, that during this adult life it may feed as many as five times, and that it does not feed indiscriminately but has a preference for the blood of the house sparrow. The time of laying eggs would seem to depend on the amount of blood taken. If the insect gorged itself the eggs might be laid in four or five days, whereas on a small meal the egg-laying might be delayed to 14 days. After laying her eggs the female may feed again and lay a second batch of eggs, and if she be able to obtain a meal of blood she will continue to do this during her adult life. A fresh observation recorded in the paper concerns the structure which forms a part of the lid of the egg. This is best seen in the eggs taken from the body of the insect when near full term. The eggs are capped at the larger end by a transparent, dome-shaped structure which is delicate and is easily broken off. It probably acts as a float. Inside and at the base of this structure is a cup-shaped cell with a hole or depression in the centre. When the float-cap breaks this cell comes away and becomes flattened out and looks like a star.

Sept. 21st.

*The Week's Plague Figures. — Bombay Mortality. — The Famine Returns. — Disinfection of Wells on the Outbreak of Cholera. — The Death-rate in Madras City.*

This week shows a decline in the number of deaths from plague throughout India. The figures are 5712, as against 6386 for the previous seven days. The most infected places are Bombay city, 236 deaths; Karachi, 11 deaths; Calcutta, 13 deaths; the Bombay Presidency, 4844 deaths; the Bengal districts, 72 deaths; the North-west Provinces, 18 deaths; the Punjab, 57 deaths; and the Mysore State, 342 deaths. In the Bombay districts the chief infected areas are the Poona district, the Satara district, the Surat district, and the Dharwar and Belgaum districts. For the week there is a decline in Bombay city, in Karachi, and in Calcutta, but a rise in the Bengal districts, the Punjab, the North-west Provinces, and the Mysore State. The outlook is ominous.

The letter in the *Times* upon the plague in India deserves further attention. The returns of plague from Bombay city are most misleading. The mortality in this city during the past three years has been enormous and the plague figures only account for part of the excess mortality. It is unlikely that other diseases should have so enormously developed during the plague period as to account for this excess, and the probable explanation lies in the deficient registration of plague deaths. It is high time that further inquiry was made into this anomaly. At the present time the death-rate in this city is nearly 60 per 1000 per annum.

The famine returns still show over 400,000 people as receiving relief. Crop prospects are good in some places, but there has been a deficiency of rain in others, and locusts have caused considerable damage in Bombay, in the Central Provinces, and in Baroda.

It is high time that the farce of colouring the water of the wells and other places with solution of potassium permanganate with the idea of stopping or diminishing outbreaks of cholera should be recognised. A certain amount of organic matter may be destroyed, but that is all. Much more evidence is required to prove its value. In some places after this disinfection cholera has stopped, but in others it has not and the strength of the solution used is not at all likely to kill the cholera bacillus.

The death-rate of Madras still continues excessively high.

It is now about 110 per 1000 or double the mean of the past 10 years. Cholera, dysentery, and diarrhoea seem to be the chief causes of this increase. The districts of the city most affected are those on the north and west. The water-supply is not above suspicion and is liable to contamination. An analysis published in the *Indian Municipal Journal* shows pollution to a considerable degree. It is said that certain villages to the north and west have been affected with cholera for some time past and that from them large numbers of labourers go into Madras daily. The sanitary state of these villages is described as terrible. They are overcrowded and their well-water supply is foul to a degree. Many are dependent for their water on the stagnant pools in which they wash and water their cattle. A death-rate of 150 per 1000 in the First Division certainly demands investigation.

Sept. 27th.

## MUNICIPAL REPRESENTATIVES ON THE HOUSING OF THE POOR:

A CONFERENCE AT GLASGOW.

(FROM OUR SPECIAL COMMISSIONER.)

(Concluded from p. 945.)

THE afternoon sitting of the first day began by the reading of a paper which proved once again that "distance lends enchantment to the view." Bailie D. M. STEVENSON (Glasgow) opened the proceedings by introducing the question of the caretaking of tenements. He attributed the Scotch custom of living in flats instead of separate houses to the intimate relations that had subsisted between Scotland and France. Bailie Stevenson, however, lamented that "when our French allies brought the tenement system to Scotland they omitted to bring the *concierge* with them." It was fortunate for the worthy Bailie that there were no Parisians present, for he even went so far as to specify more particularly the Paris Cerberus who sits and scowls from the dark recess in the side of the *porte cochère*. Bailie Stevenson thought that the caretaker or *concierge* contributed to maintain the order and cleanliness of the dwelling. In practice, however, I have good reason to know that the *concierge* studies scandal rather than sanitation. How many reputations have been destroyed, duels fought, and families broken up through the prying, gossiping proclivities of the *concierge*. Ready to be bribed by home and foreign criminal and political police and private detectives, the *concierge* tampers with the tenants' correspondence, spies upon their visitors, gives incorrect information, spreads false rumours, and generally causes mischief all round. It is only after a harsh experience that the tenant may perhaps overcome these inconveniences by resigning himself to the necessity of plying his *concierge* with numerous soft words and many hard coins. Of course, some *concierges* are very worthy people, and I knew one Parisian *concierge* who warned his Russian tenants that he kept their correspondence back for the Russian political police to read before putting it up on the letter-rack. These, perhaps it may be said, are considerations that have no direct bearing on sanitation; but, on the other hand, it would interfere with the popularity of improved dwellings if anything like the grievances which have grown up around the institution of *concierges* in France were introduced into Scotland or England. Caretakers there should be, living above, below, or on the side of the block of the flats or tenements, but not at the entrance door watching every movement and every visitor, receiving all the correspondence and answering all the questions. The caretaker may be a useful servant but the *concierge* is a terror and a tyrant. The unpopularity of the *concierge* in France should serve as a warning in regard to the manner in which caretaking is organised in England. The *concierge* is essentially a doorkeeper and a spy. What is wanted is a rent-collector who shall at the same time be a caretaker and an inspector. The object is not to interfere with the liberty of the subject by spying out all the details of his private life, but to see that he keeps his home clean and does not inconvenience his neighbours. Paris, however, is a long way from Glasgow, and if the *concierge* suggests many obstacles and objections there is no doubt that in Glasgow the caretaker has rendered good service. Bailie Stevenson related that 10 years ago the Glasgow Workmen's Dwelling Company tried to supply

cheap, wholesome tenements, but the conduct of some of the tenants was such that they would soon have converted model dwellings into new slums. Consequently resident caretakers were appointed and they policed the dwellings so well that the destructive and disorderly tenants were soon driven away or reformed.

Mr. W. C. M'BAIN (Glasgow) thought that there was more done in the way of sifting than of reforming. The root difficulty rested in the tenacity with which a certain class clung to their dirty and shiftless habits. These people must be raised and this would not be accomplished by driving them from one locality to another. Authority to control them was required. This the landlords did not possess, but the corporation, in their capacity as magistrates, had to deal with applications for the eviction of dirty and destructive tenants. As yet, however, the magistrates had not really taken up this question.

Mr. H. C. RICHARDS, M.P., argued that when dealing with the undesirable class of tenants the question of caretaking was most important. The caretaker must be strong, firm, and yet kind and sympathetic. The success of a large block of tenements depended, in the main, on the skill and efficiency of the caretaker. This was the case in the Peabody and Guinness dwellings where they had a good class of tenants, and the good that caretakers could do would be much greater where the residuum was taken in.

Mr. WILLIAM HOLDER (chairman of the Unhealthy Dwellings Sub-Committee of Hull) read a paper on the Clearing of Insanitary Areas. He condemned the extravagances and delays resulting from the application of Part I. of the Housing of the Working Classes Act. At Hull they had applied Part II., though it was only intended for insanitary houses and not for areas; but it was quicker and cheaper to proceed separately against the owner of each house than to try to apply a large scheme. In this manner they had demolished 385 houses in five different districts. This was quite as important as any scheme, but it was not a scheme within the meaning of the Act. Therefore they were able to dispense with the intervention of the Local Government Board. All that they had to do was to be quite certain that the houses which they wished to destroy were really unhealthy. Then they obtained a magistrate's order on the evidence of their own officers, backed by the photographs they took of the places which were visited. They thus proceeded against several contiguous houses, and they had cleared a whole street without incurring any cost. The process was very simple. A house once condemned as unfit for habitation had to be closed. If the owner did not rebuild or repair it he must pull it down. After a short lapse of time, if this was not done the town council proceeded to demolish the house, paid the cost out of the proceeds of the sale of the materials, and gave what balance there might remain to the owner. Some of the houses which had been thus treated at Hull were inhabited by the most depraved population that could possibly be found in a seaport town. It was a moral cleaning of the neighbourhood; the scattered population had now to conform to the more decent conduct of those among whom they had gone to live. Under Part II. of the Act the question of rehousing was not raised; and at Hull, fortunately, there were fairly cheap cottages not too far from the slum districts that had been destroyed.

Councillor INNES (Derby) also read a paper on the subject, and alluded to the affection which people bore for the slums in which they were born. The aged, more especially, preferred ill-ventilated and crowded dwellings. They dreaded brightness and light, and also feared the monotony and dullness, the absence of shops and crowds in the suburban districts. Therefore he urged that theatres, reading-rooms, baths, and large and commodious public-houses should be provided in the suburbs, so as to entice people away from the overcrowded centres.

Alderman M'GUFFIE (Liverpool) boasted that at Liverpool the best means of dealing with the housing problem had been applied. They had preceded even Glasgow by obtaining a local Act in 1864 and this enabled them to deal with insanitary areas. At the cost of £2,000,000 sterling they had dealt with from 10,000 to 12,000 insanitary houses. The speaker seemed to think that the Poor-law authorities should look after the extreme poor and that the city council should attend to the affairs of the rich and the poor alike. People were driven out of insanitary houses not for their good but for the good of the community.

Alderman M'DOUGALL (Manchester) explained that they

had endeavoured to utilise existing dwellings and to render them wholesome by demolishing such structures as prevented a through draught. Thus 800 houses had been pulled down out of 6000, and now the remaining houses had backyards and more air-space. The only cost was that of prosecuting the owners so as to compel them to effect these improvements. The owners were called upon to pull down one out of every four houses or else all the houses would be closed. By these means the bulk of the population were not disturbed, but were kept near to their work and their homes were rendered much more healthy.

Mr. D. S. WATERLOW remarked that these suggestions scarcely applied to London, for the metropolitan magistrates would not give a closing order unless it was shown where the people could be taken when unhoused. Nor did the London authorities take upon themselves to instruct landlords how to render their property sanitary as seemed to have been done in Manchester.

Councillor HOLDER, replying, remarked with regard to the boasted achievements at Liverpool that in no town were there so many waifs and strays and such squalor and misery. Concerning the position in London he thought that the magistrates had no right to insist on rehousing under Part II. of the Act. At Hull private enterprise provided four-roomed cottages for 3s. 9d. per week on the outskirts of the town. The land cost 10s. the yard and the building cost £180. The walls were nine inches thick. The plans were not up to the Local Government Board standard. The fact that Hull was entirely a freehold town greatly simplified matters.

The members of the Conference then adjourned to visit some of the dwellings erected by the Glasgow Corporation, and these interesting investigations were only concluded at the approach of night.

The morning sitting of the second day was opened by Mr. PETER FYFE (chief sanitary inspector of Glasgow) who gave an admirable statistical account of the farmed-out houses. The house-farmer would rent an entire block holding from 10 to 35 one-roomed and two-roomed tenements, and he paid on an average 6s. 9d. per month per room. These rooms the house-farmer furnished with a few absolutely necessary articles which barely cost more than 30s. per room. The house-farmer then let these rooms for 10d. per day, or 5s. per week. Deducting 10 per cent. for unoccupied rooms, Mr. Fyfe calculated that the house-farmers in North Glasgow made a profit of 53½ per cent.; in the eastern districts 70 per cent.; in the southern 60 per cent.; and in the western 63½ per cent. A recent census showed that the average earnings of the tenants were 22s. per week, but they varied from 8s. per week paid to female hairworkers to 42s. 6d. paid to bricklayers and masons. According to the confession made by the inhabitants themselves 47 per cent. had been reduced to this mode of living by intemperance. In some parts of Glasgow from 10 to 20 per cent. of the tenements were not inhabited and were marked "empty." There was room, therefore, to lodge these people, but when it was suggested to them that they should save a pound or two to buy a little furniture they only replied with a sickly smile. They were paying to the house-farmer double the rent they need pay if they only saved to buy a little furniture; but while the public-houses remained open they would never save. He did not think that philanthropic furnishing associations, or municipal lodgings, or the most active of caretakers could help these people. Perhaps a law to prevent the pawning of the necessaries of life might be useful, but the poverty-stricken dipsomaniac could only be cured when alcohol was placed beyond his reach.

Bailie W. F. ANDERSON explained that in Scotland rebuilding was not insisted upon if there were houses available for the evicted tenants within a mile of their former dwellings. The Corporation of Glasgow had bought up the worst property in the town, but the people would not go to the tenements which the corporation had erected; they, on the contrary, endeavoured to find houses even worse than those from which they had been evicted, but as the corporation were destroying the worst houses some improvement had resulted. The municipality had secured the better class of tenants, leaving private enterprise to provide for the worst class. The latter preferred to pay high rents rather than to submit to any sort of control. Bailie Anderson thought that farmed houses should be licensed and controlled by some authority, otherwise those who were displaced would go into other dwellings and convert them into slums.

Dr. A. K. CHALMERS (medical officer of health of Glasgow) read an important paper showing that even with a dense population and in an unwholesome locality the death-rate could be reduced by better housing. The worst district in Glasgow, Bridgegate and the Wynda, had a death-rate of 44 per 1000 in 1891-92. For the two following years the average death-rate was 36 per 1000, and in 1899-1900 it had fallen to 27 per 1000. By the operation of the Improvements Department the population of that district had been reduced from 5689 in 1891 to 4098 in 1900. During these 10 years a portion of the houses on this area had been reconstructed; and during the last two years 1387 persons had been lodged in 361 newly built tenements. Among these people only 40 had died, which was equal to a death-rate of 14.4 per 1000 per annum. On the other hand, in the same district near Jail-square there still remained some of the old tenements which continued to house the old class of tenants up to the adoption of the Improvement Bill in 1897. In this district during the three years preceding the application of the reforms authorised by the Bill the average annual death-rate was 53 per 1000. Therefore, side by side, on a soil equal throughout in pollution, they had one set of poor people with a low death-rate and another set with a high death-rate. Nor was the reduction of the density of population the only factor. If they took the city of Glasgow as a whole it would be found that the density of population amounted to 2.032 persons per room and the death-rate to 21.07 per 1000. The model dwellings built by the Improvement Trust gave a density of population of 2.271 per room and in Catherine-court of 2.526 per room. Thus there was a greater average density of population in these model dwellings, but the deaths were equal only to a death-rate of 15.7 per 1000. These dwellings covered 56.3 per cent. of the site on which they were built. Thus a considerable number of persons could be crowded together if the tenements they inhabited were well built and well managed. It was moral and material filth rather than density of population that produced a high death-rate.

Mr. JOHN MANN, jun., who spoke on behalf of the Workmen's Dwellings Company of Glasgow, urged that it was the housing of disinherited or rejected undesirable tenants which constituted the crux of the problem. Municipal enterprise should deal with the whole of any class, otherwise injustice and privilege would result. Such action also would tend to the benefit of the entire community. Municipal intervention was especially needed in regard to the dangerous residuum, but no congress had suggested how this was to be done, only some details as to the building of a cheap shelter had been given. At present the residuum was left to the mercy of the most unscrupulous of speculators. Under such circumstances it was surprising that so many decent people could still be found in the slums. His company carefully selected their tenants and those who did not respond to the expectations were sent away to drift back into the slums. For such as these the municipality ought to build experimentally cheap blocks or shelters. When these shelters were ready the law against overcrowding should be rigorously enforced and thus the disorderly residuum would be driven from pillar to post. Private enterprise could not do this. The saving in epidemic disease and in crime would compensate the cost of such measures. There were houses where the beds were never cold, for the day tenants succeeded the night tenants in rapid succession, but this pressure would be reduced by the competition of city shelters. For these latter there should be no standard of character. Willingness to enter should be the only qualification. Having thus provided for the needs of the residuum, the police and sanitary authorities should bring full pressure to bear on landlords. The absentee landlords should be followed up and warned that their houses would be closed and condemned as nuisances. The magistrates would no longer hesitate to sanction ejections when it was shown that the tenants could be lodged more healthily in the city shelters.

The LORD PROVOST insisted that there was a considerable class who were not criminals, who earned good wages, often as much as £5 a week, and who yet lived in the most filthy and crowded manner because they squandered their money on drinking. It could not be the duty of the corporation to provide cheap homes for men who earned £5 a week.

Councillor JOSEPH B. COLTON (Liverpool) spoke sarcastically of the bicycles and pianos which he had seen in the Glasgow municipal tenements, while in Liverpool, he maintained, they had striven to house those whose only furniture

consisted of an orange-box for a bed and a tin can for cooking purposes. In Liverpool their by-laws compelled them to spend 8½d. per foot for their building, while in Glasgow they had erected tenements at 4½d. per foot, but they were very inferior to the Liverpool standard. It was not surprising that people resorted to public houses when their homes were so gloomy.

Councillor COOPER (Aberdeen) did not believe in colonising and keeping together members of the same class. At best it only meant a little more room and air; the same social surroundings would produce the same vices. The slum population must be scattered, made to live with a better class, so as to engender in them a sense of shame. It was a mistake to strive to rebuild other, even if more sanitary, slums.

Baillie BROWN (Edinburgh) said that they had spent £150,000 and built a good class of houses, but the residuum would not come and live in them. They had made mistakes, and the more that they knew about the problem the more difficult it seemed. The moral question was the most difficult. What were they to do with prostitutes and with the tenants who said that the municipal houses were too bright to hold their shabby furniture? They had to take in a better class of people, though their object had been to help the inferior, the lowest, class.

Miss HELEN KERR, of the Edinburgh Social Union, wanted to know what percentage of a labourer's wage should go to the payment of rent, but she obtained no answer to her question.

Mrs. D. L. DOCKRELL explained that in Dublin similar difficulties existed, especially that arising from the conversion of houses built for only one family into tenements where many families lived together.

Alderman CARTER (Sheffield) urged that society would not tolerate much longer the squalid condition in which some people lived. Therefore greater powers should be obtained from Parliament to proceed against those who squandered their money. On the other hand, they must be careful that in supplying ready furnished houses they did not encourage improvident early marriages.

Alderman JOWETT (Bradford) attacked the housing of the middle and upper classes of Scotland who, for instance, allowed their servants to sleep in the kitchens where all the food was cooked. The middle classes should give a better example.

Alderman DOYLE of Dublin said that they had been obliged to pay from £5000 to £11,000 per acre for slum land in Dublin, and now the Government refused to sanction further loans. What were they to do? The land and the houses should be accepted as security for the money borrowed.

The discussion was brought to a conclusion after some further description had been given of what had been achieved in Glasgow.

The afternoon sitting was devoted mainly to the consideration of the motions. Mr. JOSEPH B. MASSEY (sanitary inspector of Burnley) found time, however, to read a paper urging municipalities to start cheap tramways to relieve the congestion in the centre of the towns, but this did not lead to a debate. There was a good deal of conversation rather than speech-making over the motions, and some of the words were altered. The words "deserving poor," for instance, were withdrawn and the word "people" was put in their stead, for it was strongly felt that the undeserving poor constituted one of the most important features of the problem. The first motion asserted that it was the duty of the municipal authorities to provide cheaply-constructed but improved dwellings, and that for this purpose more extensive powers must be obtained from the Legislature. To this end the second motion stated that:—

1. Simpler and less costly machinery should be devised and sanctioned by Parliament for enabling local authorities to put in force and carry out the provisions of the Housing of the Working Classes Acts. 2. That authority should be given to municipal corporations and other local authorities to acquire at its market value, by as simple and inexpensive a method as possible, and without any allowance for compulsory purchase, land for the present or prospective erection and maintenance of dwellings for the population to be displaced by the abolition of slum properties. 3. That any sinking fund required to be set apart for repayment of moneys borrowed for such purposes should apply to the cost of buildings only and not to land, and should be extended over a period of not less than 60 years, and that municipal corporations and other local authorities should be empowered to build such buildings in accordance with their own by-laws and not be required to satisfy the requirements of the Local Government Board.

Finally, a third motion was adopted to the following effect:—

That a joint representative committee be appointed by this Congress

for the purpose of adopting such measures as may be deemed requisite or expedient for bringing the several matters referred to in the first and second resolutions under the consideration of Parliament and for obtaining remedial and supplementary legislation thereon.

On the adoption of this motion the committee in question was at once appointed, and consisted of leading representatives from Glasgow, Edinburgh, Dundee, Aberdeen, London, Manchester, Liverpool, Newcastle, Sheffield, Dublin, Sunderland, Plymouth, and Leeds; the Lord Provost of Glasgow to act as secretary or convener.

This concluded the business of the Conference, but its members did not separate without first passing the usual complimentary vote of thanks to the Lord Provost and the Corporation of Glasgow for the useful initiative which they had taken in convoking the Conference and for the hospitality which they had bestowed on its members. Thus ended a memorable meeting. Perhaps it will be said that there were not many new proposals, ideas, or suggestions brought forward; but in any case what was only vaguely felt before has now been emphasised, explained, and rendered clear. All who assisted at the Conference have surely obtained a broader grasp and a more detailed knowledge of the subject. But there were some new suggestions, though these were not perhaps as numerous as might have been anticipated. Also, if the representative committee elected carry forward their mission with energy we may look forward to some practical results.

## BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

### *Distinguished Visitors.*

THE renewal of the activity of the medical societies of the town during the coming session is evinced by the notices of meetings already sent out. These include the names of distinguished visitors who are announced to deliver addresses at various meetings. Thus on Oct. 18th Mr. Thomas Bryant will give an address and distribute the prizes at a meeting of the Clinical Board under the presidency of Mr. Bennett May. On Oct. 24th Mr. Victor Horsley will give an address on Medical Reform at a special meeting of the Birmingham and District Medical Practitioners' Union; and on Nov. 7th it is announced that an address on the Treatment of Wounds in War will be delivered by Mr. Watson Cheyne at the meeting of the Midland Medical Society. In their respective rôles it would be difficult to find authorities more entitled to a hearing, and none who will be more welcome to the audiences which gather to listen to them.

### *University of Birmingham.*

The inaugural meeting of the medical faculty took place on Oct. 1st, when the Dean, Professor B. C. A. Windle, received the guests to the number of about 400. The event was celebrated by proceedings of a social character at which the guests were entertained by a musical programme conducted by medical friends whose performances were much appreciated. The different museums—dental, anatomical, and materia medica—were thrown open and entrance was given also to the pathological and bacteriological departments. A demonstration of lantern slides and microscopical slides was given and the various arrangements for teaching in the most modern and approved forms were shown. The evening concluded with a pleasant reunion of old friends and the anticipation of a flourishing and successful session.

### *Defective Lamps.*

Accidents and injuries inflicted by the use of imperfect lamps constitute a good proportion of cases which come before the city coroner. At his court recently an inquest was held upon the body of a young man, aged 21 years, who met his death by a lamp of this kind being thrown at him as a missile. A quarrel occurred during a game of cards, and the lighted lamp was picked up by one of the group and hurled at the deceased. The lamp struck him on the shoulder and, breaking, enveloped him in flames. He was conveyed to the hospital and he subsequently died from the injuries he had received. The coroner in addressing the jury pointed out that this was another case of a lamp which had an earthenware container. In every case which had been before him where a lamp was concerned the vessel had been a china one. A lamp with a metal vessel could be obtained at a moderate price and it was much safer. In instances such as this the lamp would probably have gone out and would not have given rise to fire. How frequently this lesson is inculcated and how

often forgotten is a matter of common observation. The cheap lamps with pottery vessels are in common use among the poor and unless some legal restrictions are placed upon their sale we shall continue to hear of similar accidents which can safely be classed as preventable.

### *The Consultative Institute.*

In place of the door-plate so obnoxious to the orthodox profession for some months past the sign of "Ichabod" may be written over the portals of this recent venture. The door-plate has gone—the glory has departed. Conceived in misapprehension, developed in ignorance, and launched into life against the united voice and will of the profession, this inglorious institution has ebbd its life away ignominiously. It will be remembered that when the late occupant of this multifarious consultant scheme resigned his position it was loudly proclaimed that there would be no difficulty whatever in finding appropriate substitutes. The scheme was widened and enlarged. Proclamation was made as to the stability of its finances and the demand for its continuance. Advertisements were issued for consultants in various departments of medicine, surgery, and specialties. The result was but an echo of the professional voice which had emphatically demonstrated the futility and uselessness of the whole project. Whatever may have been the responses to the appeal made by the promoters time showed that they did not equal the ardent aspirations and confidence entertained by the prominent members of the administration. The institution has lapsed into a natural death, the effects have been sold, and its memory only remains as that of an unwarrantable and ill-judged attempt to exploit the services of an honourable and hard-working profession.

Oct. 15th.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

### *Medical Faculty of University College, Liverpool: Opening Address by Dr. Oliver Lodge of Birmingham University.*

ON Oct. 12th Dr. Oliver Lodge, F.R.S., formerly professor of physics at University College and now the principal of Birmingham University, delivered the opening address to the medical students of University College and distributed the medals and prizes.<sup>1</sup> A thoroughly practical address was delivered to a brilliant assembly comprising the Lord Bishop of the diocese and other distinguished citizens. Before the close of the proceedings Professor Herdman unveiled a bust of Dr. Lodge executed by Mr. Allen, a well-known Liverpool sculptor, the likeness being a striking one.

### *Liverpool Medical Institution Dinner.*

The biennial dinner of the Liverpool Medical Institution took place on Oct. 12th. The gathering was a most successful one, the guests including the Lord Mayor, the Lord Bishop, and Dr. Lodge. About 120 gentlemen sat down to dinner.

### *The Mid-Cheshire Queen Victoria Memorial.*

Already £1396 have been raised towards the fund for the extension of the Victoria Infirmary, Northwich, which will be the mid-Cheshire memorial to Her late Majesty Queen Victoria. The Hospital Saturday Committee are making strenuous efforts to raise £200 towards the requisite £4000, and the employes of Messrs. Brunner, Mond, and Company have also warmly taken up the project.

### *Liverpool Country Hospital for Chronic Diseases of Children.*

In response to an appeal made by the honorary treasurer last week subscriptions amounting to £172 have just been announced. At present the committee are indebted to the West Kirby Convalescent Home for 20 beds, hence the appeal for funds to build an independent hospital at Heswall.

Oct. 15th.

## WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

### *Cardiff Infirmary.*

MR. E. TENISON COLLINS, who has practised as a gynaecologist in Cardiff for some years, has been elected second honorary gynaecologist to the Cardiff Infirmary. Through the

<sup>1</sup> Dr. Lodge's address appears in full at p. 1021.

exertions and munificence of several prominent ladies in Glamorganshire it is now certain that the women's ward, which has been closed practically for more than a year, will be permanently supported by special subscriptions obtained in Cardiff and in the surrounding district. The dearth of junior practitioners is evidenced by the fact that, on the recent appointment of Dr. John Mooney of Openshaw, Manchester, to the position of assistant house surgeon he was the sole applicant for the post. At the meeting of the Board of Management of the infirmary held on Oct. 9th it was stated that the Cardiff workmen have only contributed during the present year £258 towards the funds of the institution, while the colliers, who in some districts have to support their own local hospitals, have contributed £498.

#### *British Dental Association.*

At the annual meeting of the South Wales and Monmouthshire branch of the British Dental Association held at Swansea on Oct. 10th Mr. H. J. Thomas in his Presidential Address drew attention to the large number of men who were refused admission to the army and navy on account of the poor condition of their teeth, and stated that a few years ago when a recruiting war-vessel visited Swansea 20 per cent. of the boys offering themselves for service were rejected for this reason. Mr. J. C. Oliver of Cardiff urged that information as to the proper preservation of the teeth should be disseminated by the State and that every child attending a public elementary school should have his or her teeth periodically examined during the whole period of school life. It was resolved to send a communication to the school boards and boards of guardians in South Wales and Monmouthshire reminding them that it was their duty to see that the teeth of children under their care were looked after and pointing out the injury that was being done to children by the loss of their teeth.

#### *The Anatomy Act at Bristol.*

At the meeting of the Bristol Board of Guardians held on Oct. 11th several members of the board strenuously opposed an application for permission to remove to the Bristol Medical School the bodies of persons who have died in the Eastville Workhouse without known relations or friends. Permission was ultimately given. It is a pity that those who seek to curtail opportunities for anatomical study do not take the trouble to ascertain the provisions of the Anatomy Act whereby it is impossible for any person to say that the body of any relative or of anyone he has known has been removed under the Act to a medical school.

#### *The Prevention of Consumption.*

The Gloucester, Somerset, and Wiltshire branch of the National Association for the Prevention of Consumption and Other Forms of Tuberculosis has purchased a site of 50 acres at Winsley, near Limpley Stoke, upon which to erect an institution to be called the Royal Victoria Memorial Sanatorium. The site has been levelled and plans of the building have been prepared and at a meeting of the general committee of the branch held on Oct. 8th it was stated that of the £3176 already subscribed £2000 have been expended upon the purchase and preparation of the site and that a further sum of £9000 must be raised before the committee would feel justified in beginning to build.—The Urban District Council of Aberdare has decided to distribute from house to house the address which Dr. Isambard Owen delivered at the recent conference at Cardiff. The death-rate from phthisis in Aberdare in 1900 was 1.1 per 1000.

#### *Bristol Water-supply.*

Since the year 1846 the water-supply to the city of Bristol has been provided by a private company. With the experience of other large towns before them the city council has from time to time passed resolutions affirming the desirability of the supply being in the hands of the corporation, and about seven years ago instructed a committee to inquire as to the practicability of the purchase of the water undertaking. This committee reported to the council in 1898 that the waterworks company were not prepared to sell their property, and again reported on Oct. 8th last that after taking counsel's opinion they found that the corporation could not enforce any reduction of the present charges made by the company, and further that there was now a constant and efficient supply of water to the city. In the report of the medical officer of health for 1900, Dr. D. S. Davies states that as the company has power to make an annual charge for each closet flush very many outdoor closets throughout the city are dependent upon hand-flushing. The average daily supply of

water per head is calculated at about 22 gallons and no case of disease, says Dr. Davies, has ever been traced to its use. At present there are three storage reservoirs capable of holding 750,000,000 gallons and there will be completed early next year a fourth reservoir with a capacity of 1,700,000,000 gallons, when the reserve will be equal to nearly 250 days' supply. The water is obtained from springs in the triassic conglomerates and in the carboniferous limestone on the sides of the Mendip Hills at points distant from the city from five to 16 miles. A portion of the supply comes direct from springs to the town mains and is unfiltered; the stored water is filtered. In connexion with the new source of supply at Blagdon, in which the river Yeo is impounded, drainage schemes have been constructed by the waterworks company whereby the sewage of four villages will be treated on the septic tank principle.

#### *Superstition in Somerset.*

An inquest was held at Ilminster last week upon an old man who was found at the bottom of the stairs of his house with his neck fractured, and a verdict of "Accidental death" was returned. Evidence showed that he was considered to be a "witch doctor" and that farmers and females went to him to have the "evil eye" removed. It was stated that the old man had made a considerable sum of money out of his "patients."

#### *University College, Bristol.*

The inaugural lecture of the winter session of University College, Bristol, was delivered on Oct. 8th by the Bishop of Bristol on "The Responsibilities of Inheritance." Mr. P. J. Worsley presided and in his speech alluded to the fact that the College had now completed a quarter of a century of its existence. Mr. Worsley also stated that the present accommodation was inadequate for the work of the College, another block of buildings being required for enlarging the chemical and electrical engineering department, and on the medical side additional laboratory accommodation was required for bacteriological work. The estimated cost of this scheme was about £6000 and this sum it was hoped would be raised by the public spirit of the citizens of Bristol.—The annual distribution of prizes in connexion with the medical department of University College, Bristol, will take place on Oct. 25th. Sir Frederick Treves, K.C.V.O., C.B., will present the prizes.—The annual dinner of the Bristol Medical School will take place at the Royal Hotel on Oct. 25th. Dr. E. Markham Skerritt will preside and Sir Frederick Treves is to be the guest of the evening.

Oct. 14th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *The Carnegie Trust and the Payment of Class Fees.*

THE secretary of the Carnegie Trust has been authorised to send the following letter to the secretaries of the Scottish universities:—

2, St. Andrew-square, Edinburgh, Oct. 14th, 1901.

DEAR SIR,—It may be useful for the officials and students of your university to know some of the more general considerations which have guided the Executive Committee in deciding upon the claims of applicants for payment of class fees in the Scottish universities and in the extra-mural classes in Scotland, attendance at which is recognised as qualifying for graduation.

Three qualifications have been demanded. The applicant (1) must be over 16 years of age; (2) must be of Scottish birth or extraction, or must have given two years' attendance after the age of 14 at a school or institution under inspection of the Scotch Education Department; and (3) must be qualified by preliminary examination under the ordinances of the Scottish Universities Commission and the regulations of the Joint Board of Examiners to attend the classes for which payment of fees has been claimed.

In estimating the claims of applicants the committee have had under consideration the advisability of taking into account the financial aid which such applicants may be at present receiving from bursaries or other sources. They are of opinion that the bodies granting such aid are the proper judges of the intention of their beneficiaries and the needs of their beneficiaries.

It has been impossible in the circumstances of inaugurating the work of the trust to foresee all the particulars which for the purposes of the committee are required from applicants. This is only referred to in order to make it clear that the details of the present arrangements may be reconsidered in the light of further experience.

Two points may be mentioned. In the first place, the committee have resolved that they must insist in all cases on proof of the capacity of the applicants. It is obvious that in fairness the standard should so far as possible be the same for all, but this is not easily attainable under the existing regulations for the preliminary examinations of the universities. The committee have for the present followed the standards of preliminary examinations for the various faculties laid down by the Universities Commission.

In the second place, it is the duty of the committee to satisfy themselves of the conduct and progress in the studies of students receiving benefit from the fund. It has been, of course, impossible to enter on this occasion upon an investigation of the career of all the applicants. Many of them have already attended classes for several sessions. But it is proposed to make it a condition that every student whose fees are paid must submit to the committee a report or certificate from the professor or lecturer whose class he has attended establishing that his use of the opportunities afforded him has been satisfactory. Many applicants have applied for a large number of classes. In some cases the committee have thought it necessary to restrict demands for classes obviously in excess of what can be usefully taken.

On these points the committee would welcome the opinion and co-operation of the universities.—I am, yours truly,

W. S. M'CORMICK.

#### *Ruchill Fever Hospital, Glasgow.*

The first report of the recently opened hospital for infectious diseases, by Dr. A. Johnston, the physician superintendent, was presented to the Glasgow Town Council on Oct. 14th. It covers the period of time from Sept. 10th, 1900, to May 31st of the present year. The original plan of organisation was to close the hospital in Kennedy-street and to draft the staff to Ruchill. Owing to the small-pox epidemic this proposal had to be abandoned and the two hospitals were used for a period of nearly six months to accommodate all infectious cases other than small-pox, the latter being sent to Belvidere. The number of cases admitted to the two institutions during the year ending May 31st, 1901, was 3615. The mortality, it is gratifying to note, was only 6·8 per cent. Dr. Johnston draws special attention to the remarkably low death-rate in the cases of scarlet fever—viz., 2·8 per cent. In discussing the report Councillor Maxwell claimed that a large measure of credit for these satisfactory returns was due to the corporation for their enterprise in improving the housing conditions in various parts of the city. The necessity for constant official protection of the public health was well illustrated by a recent incident in which the carcass of an ox consigned from Ireland to a meat salesman in Glasgow was after examination found to be affected with anthrax. So far no prosecution has taken place, but the matter, it is to be hoped, will not be allowed to rest.

#### *Suspected Case of Plague in Glasgow.*

Some not unnatural anxiety has been created during the past week by the rumour that a case of plague had been removed from a vessel in the harbour. It appears that a Lascar seaman was found on one of the steamships lying in the Govan Docks with a somewhat mysterious illness, and that by the advice of the medical authorities he was removed to the local hospital for infectious diseases. Though technically both the vessel and the patient were outside the sanitary jurisdiction of Glasgow it was wisely and properly decided to ask the opinion of Dr. Chalmers. The mystery is not yet fully cleared up, but Dr. Chalmers reports that there is no evidence to warrant the assumption that the case is one of plague.

#### *Faculty of Physicians and Surgeons, Glasgow.*

Mr. George Burnside Buchanan, B.A. Cantab., M.B. Glasg., having passed the necessary examinations, has been elected a Fellow of the Faculty.—At the recent celebrations in connexion with the eightieth birthday of Professor Virchow an address of congratulation on behalf of the Faculty was presented by Lord Lister, F.R.S.

#### *St. Andrews University.*

The winter session was opened on Oct. 8th with an address by Principal Donaldson in which the opinion was expressed that neither the Government nor the public were alive to the national importance of increasing and extending the range and efficiency of university education. He hoped that by means of Mr. Carnegie's great generosity the Scottish universities would now be able, at least in the scientific and modern departments, to take a great step forwards, more especially in the development of original and research work. Regarding the payment of students' fees he considered that the Scottish ideal of securing the chance of a university education for everyone capable of utilising it was a sound one and he cordially accepted the conditions which the trust has already defined. The students of the colleges at St. Andrews and at Dundee have decided to invite Mr. Carnegie to come forward as a candidate for the position of Lord Rector of the University. At a meeting of the Senatus Academicus on Oct. 12th Mr. R. B. Haldane, K.C., M.P., was appointed lecturer on natural theology under the conditions of the Gifford Trust. The duties consist of the delivery of some 10 lectures during the session and the emoluments

amount to between £500 and £600. The lectureship is held for two years.

Oct. 15th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Nursing in Irish Workhouses.*

DR. COX, in his inaugural address at St. Vincent's Hospital, dealt with the subject of nursing in Irish workhouses and advocated strongly the cordial support of the Local Government Board in their recent efforts to secure efficient training for nurses. He showed that it was essential that the education of nurses should be carried out in the large and fully equipped clinical hospitals of the metropolis, instead of being relegated to provincial and non-teaching institutions. The *Irish Times* in a leading article on Oct. 9th said that Dr. Cox had done a great public service in making the question of the proper training of nurses the subject of his able address. Dr. Edward Thompson, M.P., while advocating the full and efficient training of nurses, holds that they could be best trained in suitable provincial hospitals previously inspected and certified as to their efficiency by the inspectors of the Local Government Board. A long letter on the subject from him appeared in the *Irish Times* of Oct. 15th.

#### *Irish Workhouse Association.*

A committee meeting of the above was recently held at 22, Lincoln-place, Dublin. The attendance included Lord Monteaigle (president), Lady Monteaigle, Mrs. Haslam, Dr. Katherine Maguire, Mrs. Leonard, R.D.C., Dunsany; Dr. Moorehead, Cootehill; Mr. W. M'Murrough Kavanagh, and Mr. Charles Eason. The chief matters considered by the meeting were the condition of the sane epileptics at present in Irish workhouses and the question of nursing in Poor-law infirmaries, with special reference to the revised general order recently issued by the Local Government Board. An announcement was received from the Belfast branch of the association to the effect that it is intended to hold a conference in that city early next month for the purpose of considering several important matters in connexion with Irish Poor-law. It is hoped that the conference will be well attended, and that it will be productive of much good.

#### *The Meath Hospital and County Dublin Infirmary.*

The address introductory to the one-hundred-and-forty-ninth session of the Meath Hospital was delivered on Oct. 14th by Mr. William Taylor, surgeon to the hospital, in the presence of a large assemblage. The subject dealt with was Modern Progress in Surgery.

#### *The Royal Victoria Hospital, Belfast.*

The City Corporation of Belfast are about to promote an "omnibus" Bill in the next session of Parliament, in which, amongst other matters, provision will be made for the council having authority to make a further grant of six acres for the purposes of the Royal Victoria Hospital. This is to be provided from the old asylum grounds (owned by the corporation) in order to make the institution more perfect.

#### *The Health of Belfast.*

The report of the medical officer of health presented to the City Corporation of Belfast on Oct. 1st showed that during the past month 679 cases of zymotic disease have been notified—viz., 374 typhoid fever, 208 simple continued fever, 32 erysipelas, 27 diphtheria, 25 scarlet fever, seven membranous croup, and six puerperal fever. There were 159 deaths registered from zymotic diseases, 64 from phthisis, and 56 from diseases of the respiratory organs. The total annual death-rate was 22·0. The regretful features of this alarming report are: (1) that there is a considerable increase in the number of notifications of zymotic diseases; (2) that the outbreak of typhoid fever still continues and now the disease seems to be prevalent in all the districts of the city, and, unfortunately, the deaths therefrom are also more numerous; and (3) that the cases of diphtheria have also increased. It is satisfactory to find some crumbs of comfort inasmuch as the deaths from measles number seven as compared with 19 in the last report, and scarlet fever (apparently now a very mild zymotic in Belfast) caused only one death in the month. In the discussion which followed attention was drawn to the delay in changing from dry- to water-closets in the small houses in its effect as regards outbreaks of typhoid

fever, to the importance of inspection of butter-milk, the prevention by milk-vendors of the mixing of milk, and the supervision of ice-cream vendors. Councillor J. D. Williamson, M.D. R.U.I., advocated the inclusion of measles and phthisis in, and the elimination of continuous fever from, the notifiable diseases.

#### *The Belfast Board of Guardians.*

At a meeting of this body on Oct. 1st it was decided to erect a nurses' home in connexion with the fever hospital to accommodate 36 nurses. A suggestion from the Infirmary Committee to improve the dietary of the nurses and medical officers and apothecary was rejected. It is hard to understand the policy of a board who are anxious to expend £13,000 in building a new board-room and offices and who at the same time decline to make the dietary of their medical officers and nurses (13 have had typhoid fever) equal to that of any third-class hospital in England. All the long discussion was over the question of giving each hospital nurse one chicken instead of one between four, and of substituting 10 pints of milk instead of eight, a pound of pork (in case they did not take the equivalent in chicken), a quarter of a pound of cheese per week, half a pound of oatmeal, and half a pound of jam or marmalade, with pickles, butter, and salt, for the resident medical officers. Nothing is in the long run worse than this "penny-wise-and-pound-foolish policy."

#### *St. John Ambulance Association.*

The annual meeting of the Belfast branch of this association was held on Oct. 11th. It was reported that during the year 18 first-aid classes were held and were attended by 410 pupils, and four nursing classes which were attended by 67 pupils—in other words, there were 22 classes attended by 477 pupils. A new feature had been the instructing of men in "home nursing of the sick" and 16 certificates were granted to members of these classes. The work of the firemen who form the Belfast division of the St. John Ambulance Brigade was highly appreciated and they received 1867 calls. The distance traversed by the ambulance carriages was 4487½ miles, or an average of two and a half miles per single journey. Financially there is a small balance to the credit side of this Belfast branch.

#### *Opening of the Winter Session in the Belfast Medical School.*

The present winter session (1901-1902) of the Belfast Medical School began on Oct. 15th when the introductory address at the Royal Victoria Hospital was given by Dr. Robert Campbell, one of the assistant surgeons. After welcoming the students and giving them some admirable advice, Dr. Campbell said that he regretted the present unfortunate condition of university affairs in Ireland. Apparently every 20 years or so that question was thrown into the crucible by various Governments and he deplored the apparent determination on the part of some of the present Ministers to yield to sectarian clamour. Dr. Campbell then proceeded with his address on the Limitations of Surgery, in which he showed the lines upon which further original work was needed. He illustrated his remarks by reference to sepsis, tuberculosis, and cancer, and said that they wanted further information as to the chemistry of the blood in these diseases and as to the general constitutional condition present. Dr. Campbell's address, which was full of humour, sound common-sense, and apt illustrations, was loudly applauded at its conclusion by his colleagues and the large audience of students present. Classes began at the College in the afternoon.

#### *Monaghan District Lunatic Asylum.*

At the monthly meeting held on Oct. 10th it was reported that there were 465 male patients in the institution, while the statutory accommodation was for 362—that is, 103 male patients in excess of the limit, a condition of overcrowding prejudicial to the health of the patients as well as to their recovery. It was decided to ask the guardians of the workhouses in Cavan and Monaghan if they would receive harmless certified lunatics, and if so, how many, in case £20 per annum were paid for the maintenance of each lunatic. The Inspectors of Lunacy and the county council were also asked to approve of this arrangement in view of the large expense that the extension of the asylum would involve.

#### *The Armagh Guardians and the Local Government Board.*

At a meeting of this Board held on Oct. 1st a letter was read in reply to the resolution of the guardians calling upon the Local Government Board to withdraw their allegations against the medical officer of the union (see THE LANCET, Oct. 5th, p. 947), and it was decided unanimously that it

should be marked "read," the chairman observing that it was the proper way to treat such a letter.

Oct. 15th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *The Distribution of Antimony in the Organism after Ingestion.*

At the first meeting of the Academy of Medicine held after the holidays M. Pouchet read a very interesting paper upon some experiments which he had made upon animals with a view to find out how antimony would be found distributed in the organism in cases of chronic poisoning, especially as compared with the distribution of arsenic. The results were notable from a medico legal point of view. A rabbit weighing 1095 grammes was fed for 50 days upon a diet in which were contained 30 meals to every one of which had been added five milligrammes of tartar emetic. The animal thus received in all 150 milligrammes of the salt corresponding to 54 milligrammes of antimony. The rabbit was killed and upon examination the antimony was found to be distributed chiefly in the digestive apparatus, while the skin, the fur, and the nervous system—that is to say, the tissues in which arsenic is most appreciably found—contained a mere trace of antimony. In other animals it was found that the addition of arsenic to the antimony, even in a very small proportion, affected the skin and the nervous system at an earlier date and more seriously than pure arsenic. In those animals which died from mixed poisoning the brain, the muscles, and the spinal cord, together with the liver, contained arsenic and very little antimony. The skin and the fur contained a large quantity of arsenic and more antimony than the tissues previously mentioned, while the digestive tract contained but little arsenic and the greatest proportion of antimony. If bromide of potassium were administered together with the poisons both the symptoms of poisoning and the distribution of the poison were considerably modified.

#### *The Plague at Marseilles.*

There has been no new case of plague among the passengers of the *Senegal*, but complaints continue to be made about the very unsatisfactory condition of the lazaretto at Frioul. It affords hardly any shelter from the weather and neither doors nor shutters fit. The sleeping-rooms are so damp that the plaster is falling off the ceilings, and the walls and the floor are in a terrible condition of dirt. Complaints come from all sides, one result of which has been that the corridors have been swabbed out with carbolic acid. The cooking and table arrangements leave much to be desired, and, as might be expected, it is very difficult to get cooks or servants, for they are all afraid of infection. Food is sent in from Marseilles and given to the unfortunate people in the lazaretto through a grating which is placed at a distance of three metres from a second grating where one of the sanitary officials takes it in.

#### *The Accident to Dr. Calmette.*

I have already acquainted your readers<sup>1</sup> with the main facts as to the accident to Dr. Calmette, the Director of the Pasteur Institute, who was dangerously bitten in the hand by one of his rattlesnakes while he was making experiments. Dr. Calmette immediately inoculated himself with his anti-venomous serum and the immediate results were, apparently, exceedingly satisfactory. Since then, however, although the wound had almost entirely healed, local complications occurred in its vicinity and Dr. Calmette has unfortunately had to undergo amputation of the ring finger of his right hand.

#### *A Revolver Bullet Extracted from the Surface of the Lung.*

At a recent meeting of the Society of Surgery M. Loisin reported the case of a soldier who had been brought into the hospital at Val-de-Grâce. The wounded man had been shot with a revolver, the bullet of which had penetrated the chest at the level of the outer end of the clavicle. By radiography it was perceived that the bullet lay in the second intercostal space, some centimetres from the edge of the sternum and at a depth of from two to three centimetres from the surface. The second intercostal space was incised, but the bullet could not be discovered, despite repeated probing with a

<sup>1</sup> THE LANCET, August 31st, 1901, p. 622.

very fine trocar. Some little time afterwards, however, the x rays were again brought into use by means of the Contremoulins apparatus, and it was seen that the bullet was where it had been seen before. Another incision was made, the pleura was opened, and on the lung retracting it was found to be easy to seize the bullet with a pair of forceps and to remove it, since it was only covered by a very thin layer of pulmonary tissue. The bullet was a Mauser rifle bullet of a diameter of seven millimetres, and the wounded man made a perfectly uneventful recovery.

Oct. 15th.

## ROME.

(FROM OUR OWN CORRESPONDENT.)

### *The Plague at Naples.*

ONLY one fresh case of plague has been reported at Naples during the past week and none from any other part of Italy. The new case was in a girl, 13 years of age, and is the first attack in a female. Death took place two days after the patient's removal to Nisida, the symptoms having been virulent from the first. Another death occurred there on Oct. 9th of a man who had been seized with the disease on Sept. 21st, and had therefore had an illness of fully 18 days' duration. There appear to have been altogether 21 cases, with seven deaths, since the commencement of the outbreak up to the present time, but as yet no official statistics are available in regard to this. The greater number of the "contacts" have been set at liberty, but according to the terms of the Venice Convention the occurrence of the fresh case prevents the authorities from giving the port "libera pratica" until 10 days after its isolation. The required period will not thus elapse before Wednesday, Oct. 16th. There are now at Nisida only three persons actually under treatment, 14 convalescent, and 36 still under observation. As a proof that the outbreak is regarded as practically extinguished the announcement is made that the King and Queen, with the infant Princess Jolanda, will arrive at Capodimonte not later than the 25th of this month.

Oct. 13th.

## AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

### *The Bubonic Plague.*

TWO suspicious cases, one fatal, of bubonic plague have occurred in Sydney and there has been another fresh case in Brisbane, the patient being a seaman on a steamer trading between Brisbane and Townsville.

### *Health of Sydney.*

Dr. W. G. Armstrong, health officer of the metropolitan district of Sydney, has furnished a report on the health of the city and the work of the sanitary department for the quarter ending June 30th. On the whole the conditions of health in the city were improving. House-to-house inspection had shown that the poorer classes were badly domiciled and careful and prolonged investigations showed that defects of construction and neglect of repairs leading to gross insanitary conditions of dwellings were more common in the poorer quarters of the city than was believed to be the case even three months ago. Whole terraces of houses were found to be dangerously damp and unhealthy from want of proper damp courses or absence of ventilation beneath the floors. The systematic inspection of common lodging-houses had brought to light some very objectionable and insanitary conditions. Unsuccessful attempts had been made to abate the "expectoration nuisance." Disinfection of dwelling-houses where infectious diseases and consumption had occurred had been carried out as far as practicable. Scarlet fever, diphtheria, and typhoid fever all showed an increase on the returns for the last quarter. The outbreak of cerebro-spinal fever had abated, only one death being recorded.

### *Increase in Cancer.*

A deputation recently waited on the Premier of South Australia to request him to provide accommodation for the care and treatment of cancer patients. It was pointed out that the Home for Incurables had done all it could to deal with these cases, but the increase in the disease had been such that this institution could no longer

accommodate the cases requiring treatment and a cancer hospital was necessary. It was stated that cancer was largely on the increase all over Australia. The Premier said that he would endeavour to induce the Charity Commissioners to devote some of the funds at their disposal to the erection of a cancer ward in the hospital grounds.

### *The Notification of Consumption.*

The Board of Public Health of Victoria has decided to declare consumption an infectious and consequently a notifiable disease. The chairman of the Board (Dr. D. A. Gresswell) has long been an advocate of notification in the case of pulmonary tubercle and recommended the measure in an address in 1899. He has explained that the purpose of notification is mainly educational in order that patients and their friends may be furnished with proper instructions to prevent the spread of the infection and that the ventilation and drainage of their houses may be seen to and disinfection carried out when a patient leaves. A number of medical men have opposed the action of the Board, pointing out that it is the duty of the health authorities to see to the ventilation and drainage of all houses, not only those inhabited by consumptives; that the medical attendant can see that proper directions are given to the patient and his friends; that notification without its natural corollary of segregation, as in leprosy, is practically futile, and no one at present suggests segregation. On the other hand notification may cause harm to the patient who will be, so to speak, branded and may lose occupation in consequence.

### *Hospital Affairs.*

At the last meeting of the directors of the Prince Alfred Hospital, Sydney, correspondence was received from the Executive of the Hospital Saturday Fund intimating that in future, in the case of patients accepted for admission who are "industrial subscribers" to the Hospital Saturday Fund, and properly recommended, the Fund would guarantee payment to the hospital at the rate of 4s. per day. It was resolved that the Executive of the Fund be informed that the hospital could receive no recommendations which would confer upon patients the privilege of being admitted to the wards, and that the only considerations which governed admission were the suitability of the cases medically and the financial means of patients, the hospital being primarily for destitute persons. It may be explained that "industrial subscribers" to the Fund are employes who contribute regularly every week out of their earnings some small sum from (generally) a penny upwards. Originally the Fund was started with the object of financially assisting the hospitals in their legitimate work of giving medical attendance to the destitute sick. But in all the hospitals the practice is extending of exacting payment from patients for their maintenance and according to their means, and in Sydney if an applicant is unable to contribute he has to get an order from the Government medical officer after making a declaration that he is destitute. Then the Government pays the hospital for his maintenance at the rate of £1 a week. The proposal of the Fund Executive would enable individual patients to escape making a declaration and also to escape individual payment, and is practically constituting the Fund into a club for those in receipt of regular wages to enable them to secure hospital treatment, they being a class who ought to receive medical treatment through the means of friendly societies or as private patients of outside medical men.—A deputation from the Sydney Hospital has waited on the Minister of Works to ask him to reserve permanently the site of the Moorcliff Eye Hospital, which is within the Darling Harbour resumption area, and now vested in the Harbour Trust. The Minister replied that the proposed scheme of reconstruction in the locality would probably render the site less suitable for a hospital, and he thought that the committee should look out for a more suitable place. He would consult with the Harbour Trust and if their proposals would not clash with the hospital he would fall in with the views of the deputation.—At the annual meeting of the subscribers to the Women's Hospital, Melbourne, a much-debated question was brought up for discussion—viz., whether married women should be distinguished from single women (in the maternity department). Since the foundation of the hospital married women had been distinguished by the prefix "Mrs." on their bed-tickets, but objections had been raised to the custom. The meeting decided that the existing practice should be continued until separate wards can be made available for married and unmarried patients. The report for the past

year showed that 1778 in-patients had been treated—1359 in the midwifery department. The receipts had been £6507 and the expenditure £7028. The committee regretted the inability to accommodate large numbers of patients constantly seeking admission and hoped that as the result of a special appeal they would be able next year to erect much-needed additions to the wards.

#### *Proposed Dental Hospital, Sydney.*

For four years negotiations have been carried on between the Sydney University and the Sydney Hospital with regard to establishing a clinical dental department at the hospital. At the last meeting of the University Senate the Dean of the Faculty of Medicine reported that the proposed arrangements had fallen through as it was found impossible to accommodate a dental school on the site of the hospital. The Senate resolved to establish an independent university dental school and hospital, and a flat at the corner of George-street and Bathurst-street has been leased for the purpose and is being fitted up as rapidly as possible. Many of the Sydney dentists are opposed to the hospital as proposed and want to have a dental hospital managed entirely by the dental profession and not by the University authorities as is done in Melbourne.

#### *The Dentists Act, New South Wales.*

The Dental Board of New South Wales has made a number of regulations under the Dentists Act. Among them it is stated that the following are the certificates, diplomas, membership degrees, licences, letters, testimonials, titles, statutes, or documents which will be recognised by the board, under section 12 of the Dentists Act—viz., Licentiate in Dental Surgery of the Royal College of Surgeons of England, Licentiate in Dental Surgery of the Royal College of Surgeons of Edinburgh, Licentiate in Dental Surgery of the Faculty of Physicians and Surgeons of Glasgow, Licentiate in Dental Surgery of the Royal College of Surgeons in Ireland, Licentiate in Dental Surgery of a University in Australia or other British possession, degree of Doctor of Dental Surgery or Doctor of Dental Medicine, conferred by a school, which is either a member of the National Association of Dental Faculties of the United States of America or the diploma of which is recognised by the State Dental Board of the State under whose charter it works, the licence or diploma of any other legally qualified dental school or dental board the certificate of which is granted after not less than three years' study or five years' practice of dentistry and satisfactory examination in the following subjects—viz., anatomy, physiology, histology, bacteriology, pathology, therapeutics, chemistry, metallurgy, materia medica, operative dentistry, prosthetic dentistry, hygiene, and orthodontia. It is further provided that the Dental Board shall from time to time hold, or cause to be held, examinations in theory and practice of persons being registered as dentists and shall grant certificates to persons being registered as dentists and shall grant certificates to persons passing any such examination. The board shall admit to such examinations any person desiring to be examined who has previously paid a fee of £5 5s. and has satisfied the board that he is a person entitled to submit himself for examination, provided that a subsequent examination may be allowed on payment of a further fee of £3 3s. and on such conditions as the board may determine.

#### *Medical Libel Action.*

Dr. Merrillees, resident medical officer of the Ararat Hospital, recently brought an action against Dr. Palmer and Mr. Hayman of Ararat for £2000 damages for alleged libel. It is satisfactory to find that the case has been settled out of court, but it involved some interesting points in medical ethics. Dr. Merrillees gave a public lecture on Alcohol in which he denounced those who ordered its administration in disease, and cited the case of a patient in the Ararat Hospital who nearly died after alcohol had been given by his locum-tenent but recovered when treated by Dr. Merrillees without alcohol. Dr. Palmer and Mr. Hayman then declined to meet Dr. Merrillees in consultation and also inserted a notice in the local paper to this effect. This notice constituted the alleged libel.

#### *Cerebro-Spinal Meningitis.*

The *Intercolonial Medical Journal of Australasia* for August contains a report of a series of seven cases of cerebro-spinal meningitis occurring in the Children's Hospital, Melbourne, by Dr. W. C. Mackenzie, which is interesting from the extreme rarity of the disease in Australia. In

two of the cases intra-cellular diplococci were found in the fluid obtained by lumbar puncture, a procedure found to be of value for the relief of symptoms as well as for diagnostic purposes. Only one of the cases was fatal with characteristic post-mortem appearances.

Sept. 10th.

## Obituary.

EDWARD HARRIMAN DICKINSON, M.D. EDIN.,  
F.R.C.P. LOND.

MUCH regret was felt by the medical profession generally in Liverpool, as well as by a large circle of lay friends, at the announcement of the death in his fifty-ninth year of Dr. Edward H. Dickinson, which took place on Oct. 10th. He had suffered for a considerable period from cardiac asthma, the attacks of dyspnoea at times being very distressing. Dr. Dickinson studied medicine at the University of Edinburgh and at St. George's Hospital, London. He graduated as M.D. at the University of Edinburgh in 1876, obtaining the gold medal for his thesis. He was elected a Fellow of the Royal College of Physicians of London in 1880, at the early age of 38 years. He was formerly lecturer on comparative anatomy and zoology at University College, Liverpool, and was honorary physician to the David Lewis Northern Hospital for upwards of 30 years—an appointment which he resigned in the spring of this year owing to failing health. Dr. Dickinson was a man of rich and varied accomplishments. Educated at Cheltenham and Trinity College, Oxford, he started the race of life well equipped to encounter its difficulties and to appreciate its enjoyments. Naturally of a refined taste, he took a keen interest in the fine arts and developed a critical discrimination in the choice of pictures. His love of all manly sports, especially on the moor and at the river-side, aroused in him an intelligent interest in all that appertained to country life. His sympathy with suffering, his generous nature, his staunch friendships, and his love of truth endeared him to all his friends, who sincerely lament his premature decease. He was twice married and leaves a widow and three children to mourn their loss. The interment took place on Oct. 15th, at Lamplugh in Cumberland.

THOMAS VINCENT JACKSON, F.R.C.S. EDIN., J.P.

By the death of Mr. T. Vincent Jackson the medical profession has lost a prominent and honourable member and the town of Wolverhampton a spirited and high-minded citizen. Failing somewhat in health for some months past he finally succumbed to pneumonia after a brief illness, and died on Oct. 12th at his house in Waterloo-road. Born in London Mr. Vincent Jackson was educated at a private school at Brighton and afterwards at King's College, London. Later he entered as a medical student at University College and Hospital where by his industry and assiduity he obtained due scope for his intelligence and was rewarded by various posts in the teaching departments. He was appointed demonstrator of anatomy in the school, subsequently house surgeon at the hospital, and assistant in the ophthalmic department. Subsequently he became private assistant to Mr. Richard Quain, but his health failing he relinquished his London prospects and settling at Wolverhampton was elected a surgeon to the Wolverhampton and Staffordshire General Hospital. To this institution he devoted his services unremittingly to the time of his death. As a surgeon Mr. Vincent Jackson held a high position in the profession, his interest in this branch of the profession obtaining for him more than a local reputation, more particularly by his contributions to the study of lithotomy, perineal operations, and colotomy. He was one of the founders of the Pathological and Clinical Section of the Birmingham and Midland Counties Branch of the British Medical Association and in 1889 was elected president of the branch. On that occasion he delivered an address on the history of the medical profession down to the time of the Victorian era, closing a lucid and interesting sketch with the sound advice of a man who knew and felt what he uttered with the memorable—

Improve the best, so shall your sons  
Better what you have bettered once.

Straightforward and sincere in his judgment he ever sought

to advance the interests of the profession and to maintain its dignity and honour. A somewhat impulsive manner, the outcome of an ardent temperament and sense of personal conviction, made him at times misunderstood, though those who knew him best felt that his heart was directed right. As a citizen Mr. Vincent Jackson was fully alive to his duties and responsibilities. Taking an active part in public affairs he was first a town councillor, then elected mayor in 1886, afterwards becoming an alderman in the city of his adoption. As a magistrate for the borough and for the county of Stafford he exercised his functions impartially and with care. As a type of a high-minded citizen, a firm friend, and an indefatigable worker in his profession he has left a noteworthy example to others. He died at the age of 67 years, leaving a widow to mourn her loss.

**DEATHS OF EMINENT FOREIGN MEDICAL MEN.**—The deaths of the following eminent foreign medical men are announced:—Dr. Galvanis, Professor of Surgery in the University of Athens and Surgeon to the Evangelismos Hospital.—Dr. Max Freudweiler, Assistant Physician for Hydrotherapy and Gymnastic Methods in the Zürich University Clinic.—Dr. H. von Wyss, Professor of Forensic Medicine in Zürich, at the age of 54 years.

## Medical News.

**UNIVERSITY OF CAMBRIDGE.**—At a Congregation held on Oct. 10th the following degrees in Medicine and Surgery were conferred:—

*Doctor of Medicine.*—Charles Samuel Myers, Gonville and Caius.  
*Bachelor of Medicine and Bachelor of Surgery.*—Harold Walker, King's; John Percy Lockhart Mummery, Gonville and Caius; John Bradford, Emmanuel.

Dr. L. Humphry has been appointed Assessor to the Regius Professor of Physic. In the present term the first M.B. examination will begin on Dec. 9th, the second on Dec. 9th, and the third on Dec. 10th. A paper explaining the changes in the third M.B. examination, which will come into effect next year, has been prepared by the Registry and may be had by students on application.

**FOREIGN UNIVERSITY INTELLIGENCE.**—*Berlin*: It is intended to establish a Propædæutic Medical Clinic in the Moabite Hospital with Dr. Renvers and Dr. Goldscheider as professors.—*Breslau*: Dr. Lesser has been appointed Extraordinary Professor of Forensic Medicine.—*Caracas*: Dr. J. de Villegas Ruiz has been appointed to the chair of Clinical Medicine and Pathological Anatomy.—*Königsberg*: Three of the professors of the medical faculty have refused to allow female students to attend their lectures, so that it is practically impossible for ladies to attempt to carry on medical study in this university.—*Sienna*: Dr. A. Andrucci has been recognised as *privat-docent* of Operative Medicine and Dr. E. Modigliano as *privat-docent* of Pediatrics.

**LOWESTOFT HOSPITAL.**—The annual meeting of the governors of this hospital was held on Sept. 2nd under the presidency of the Earl of Stradbroke. The report stated that, exclusive of £552 10s. donations placed to the capital account, the income had been £1799 and the expenditure £1684. At the close of the account there was a balance to the credit of the treasurer of £195. The capital account had been increased by the generous gift of £500 from the officers and men of H.M.S. *Hearty*, which sum, together with a cot complete in every way, was handed to the trustees in November last. A life donation of £52 10s. has been received from Mr. George Jewson and placed to the capital account.

**SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.**—A quarterly court of the directors was held on Oct. 9th, Mr. Christopher Heath, the President, being in the chair. Two new members were elected and the death of a member was reported. There were no fresh applications for grants. The death of a widow was announced who had been in receipt of grants since 1882 and had received £1084 10s. from the society, her husband having paid £28 as subscriptions. Applications for renewal of grants were read from 51 widows, 13 orphans, and five

recipients from the Copeland Fund, and it was resolved that £1168 should be distributed among them at the next court. It was determined to make a Christmas present to the widows and orphans on the fund, the sum of £569 to be divided among them, thus disposing of the surplus income. The expenses of the quarter were £66 5s.

**ROYAL COLLEGE OF SURGEONS IN IRELAND: FELLOWSHIP EXAMINATION.**—The following candidates having passed the necessary examination have been admitted Fellows of the College:—Mr. J. M. Falkiner (Assam, India), Mr. G. A. Gunton (London), Mr. W. H. Langley (Nigeria, West Africa), and Mr. J. R. Macnamara (Assam, India).

**BRISTOL GENERAL HOSPITAL.**—Dr. A. J. Harrison, physician to the newly formed dermatological department of the Bristol General Hospital, will now be able to carry out the Finsen treatment for lupus, Sir William Wills having undertaken to defray the cost of the process for one year.

**NORTH SURREY DISTRICT SCHOOL, ANERLEY.**—There was a general muster of the officers and staff on Oct. 8th, when Mr. C. Bray (the superintendent), supported by Mr. H. J. Prangle (the medical officer), Mrs. Marsland (the matron), and others, made a presentation of a satinwood wardrobe and a purse of gold to Mr. and Mrs. Orpin, who are retiring on pension from their position at the schools. They have been at the lodge about 17 years. Mr. and Mrs. Walter Overton were appointed their successors.

**NURSES' HOME AT ALTRINCHAM.**—A new Nurses' Home in connexion with the Altrincham Provident Dispensary and Hospital was opened on Oct. 12th by the Duchess of Buckingham and Chandos. The accommodation in the hospital for the nursing staff being inadequate a convenient house close to the hospital was purchased at a cost of £1500. The whole expense of acquiring and fitting up the home has amounted to £3400. Towards this the trustees of the Altrincham Workhouse Charity have allocated the sum of £2000, and the remainder has been paid out of the reserve fund. The present buildings were erected in 1870 and in the following year the number of in-patients admitted was 28, while last year the number was 301.

**THE FORTHCOMING ELECTION OF DIRECT REPRESENTATIVES.**—We learn that Mr. George Brown, who seeks re-election, and Mr. George Jackson, F.R.C.S. Eng., who is also a candidate for a seat on the General Medical Council, will address the members of the Midland Medical Union, of which Mr. J. Goodwin Shea, J.P., of Chesterfield, is president, at their annual meeting to be held at the Masonic Hall, Nottingham on Wednesday, Oct. 23rd. At a meeting of the Medical Guild, Manchester, held on Oct. 16th, it was decided to invite Mr. Horsley and Dr. Woodcock to address a meeting at the Palatine Hotel, Manchester, on the 23rd inst., and Mr. George Brown and Mr. George Jackson to a meeting at the same place on the 24th inst. Dr. Glover to be invited to address either meeting as he shall prefer.

**THE NATIONAL REGISTRATION OF PLUMBERS.**—The Mayor of Derby, in presenting certificates of registration to several master and operative plumbers at the Guildhall, Derby, on Oct. 12th, said that the objects of the national registration of plumbers were such as to commend themselves to every thoughtful person. For some years the organisation had been seeking powers in Parliament to legalise the present voluntary system of registration to enable those employing plumbers to be satisfied that they were employing thoroughly efficient workmen. Those objects appeared to him to be thoroughly laudable, and he sincerely hoped that they would be achieved. As the health of people depended so much upon the plumbers, it was obviously necessary that the work should be carried out by competent and practical men. Alderman Richard Hind, mayor of Stockton-on-Tees and Renter Warden of the Plumbers' Company, referred to the work of the organisation, particularly with regard to the technical education of young plumbers. The object was to get more carefully educated and well-trained workmen through the medium of the technical classes. Sir Thomas Rowe, M.P., in expressing his sympathy with the objects, stated that he had been closely connected with the building trade all his life and was fully alive to the importance of plumbing work as affecting public health. He was entirely

in sympathy with the Plumbers' Registration Bill and would support the measure on all occasions.

**BARKER ANATOMICAL PRIZE.**—This prize of 20 guineas, open to all medical students of the United Kingdom, has been awarded to Miss Susan Forster Dickson, a student of the Royal College of Surgeons in Ireland.

**DONATIONS AND BEQUESTS.**—The late Mr. Thomas Kincaid Hardie, of 3, Hyde-park-terrace, London, has bequeathed to the Rothesay Victoria Hospital a sum of £500.—The committee of the North London Hospital for Consumption, Mount Vernon, Hampstead, has received a donation of £1000 to name a bed "in memory of the late Mrs. Henry Claudet, who died at Cannes."—The committee of the Cardiff Infirmary have received £1050 from an anonymous donor.

**AN ISOLATION HOSPITAL FOR KINGSWOOD.**—The medical officer of health (Mr. C. J. Perrott) of the urban district of Kingswood, near Bristol, is urging his council to provide an isolation hospital. There can be no doubt that one is needed, for the population of the district has increased during the last decade from 9000 to nearly 12,000 and during September there occurred 13 cases of typhoid fever, one of which terminated fatally.

**WATER-SUPPLY OF THE BRIDGWATER RURAL DISTRICT COUNCIL.**—Colonel A. Hepper, Local Government Board inspector, held an inquiry at Bridgwater on Oct. 10th into an application by the rural district council for sanction to borrow £24,000 for the purposes of carrying out a water-supply for six of the rural parishes. Evidence was given showing that the water used by the inhabitants from wells, and the like, was very impure and had led to outbreaks of infectious diseases.

**GUY'S HOSPITAL.**—Sir Joseph Dimsdale, M.P., Lord Mayor elect, has promised to preside at a Mansion House meeting to be held early in January next in furtherance of the appeal of this hospital for a renewal of public support. A sum of £180,000 is required to meet the cost of many works of renovation and extension rendered necessary by the age of the hospital and the constantly increasing demands upon its ministrations. The appeal also asks that the income of the hospital derived from voluntary sources may be increased to £25,000 per annum.

**ENTRANCE SCHOLARSHIPS.**—The following entrance scholarships have been awarded at St. Mary's Hospital Medical School:—Open Scholarship in Natural Science, value £145, W. L. Holyoak (Wyggeston Schools, Leicester); Open Scholarship in Natural Science, value £78 15s., F. C. H. Bennett; Open Scholarship in Natural Science, value £78 15s., L. Colebrook; Open Scholarship in Natural Science, value £52 10s., E. Balthasar. University Scholarships of £63 each, W. E. Paramore (St. John's College, Cambridge) and H. E. Kitchen (Sidney Sussex College, Cambridge). Epsom Scholarship (by nomination), A. J. May (Epsom College).

**ENTERIC FEVER AT PLYMOUTH.**—At a meeting of the sanitary committee of the Plymouth Borough Council held at the end of September the medical officer of health (Mr. F. M. Williams) reported that from the last few days of August up to the end of September 34 cases of enteric fever had been notified. The enteric fever wards of the Borough Hospital were over-full (22 cases in wards to accommodate 16) and applicants for admission had to be refused. The outbreak had been traced to drinking water from storage tanks, defective house-drains, and to the disturbance of a filthy subsoil for the reconstruction of new sewers.

**DUTIES OF DISTRICT MEDICAL OFFICERS.**—At the meeting of the visiting committee of the Newton Abbot Board of Guardians held on Oct. 9th one of the district medical officers who had been requested to mention the salary he would require for attendance upon children in the new cottage homes of the guardians, stated that he would undertake the duties for a period of one year at a fee of £5 per home. One of the guardians considered that the medical officer should perform the duties without any extra remuneration as the children resided in his district, but the clerk disagreed entirely with that view, and eventually the matter was referred to the medical committee.

Messrs. George Jennings, Limited, have received a notification of appointment of sanitary engineers to His Majesty the King.

## BOOKS, ETC., RECEIVED.

ALLEN, GEORGE, 156, Charing-cross-road, W.C.

John Bull: His Origin and Character, and the Present Condition of His Big Property, and Two other Papers on Education. By Cecil Roddie. Price 6d.

ARNOLD, EDWARD, 37, Bedford-street, Strand, W.C.

Phototherapy. By Professor Niels R. Finzen, Copenhagen. Translated from the German edition, and with an Appendix on the Light Treatment of Lupus. By James H. Sequeira, M.D., Lond., M.R.C.P. Price 4s. 6d.

CHURCHILL, J. & A., 7, Great Marlborough-street, W.

A Simple Method of Water Analysis, especially designed for the use of Medical Officers of Health. By John C. Thresh, M.D. Vict., D.Sc. Lond., D.P.H. Cantab. Third edition. Price 2s. 6d.

An Introduction to the Bacteriological Examination of Water. By W. H. Horrocks, M.B., B.Sc. Lond. Price 10s. 6d.

Outlines of Gynaecology, Pathology, and Morbid Anatomy. By C. Hubert Roberts, M.D. Lond., F.R.C.S. Eng., M.R. J.P. Price 21s.

A Manual of Practical Anatomy. By the late Professor Alfred W. Hughes, M.B., M.C. Edin., &c. Edited and completed by Arthur Keith, M.D. Abern., F.R.C.S. Eng. In Three Parts. Part I., The Upper and Lower Extremities. Price 10s. 6d.

CONSTABLE, ARCHIBALD, AND CO., LIMITED, 2, Whitehall-gardens, S.W.

The Life of Pasteur. By René Vallery-Radot. Translated from the French by Mrs. R. L. Devonshire. Two volumes. Price not stated.

GEER, BELINFANTE, The Hague, Holland.

Verslag van De Staatscommissie tot Voorbereiding van maatregelen tegen Verontreiniging van Openbare Wateren. Published by order of the Government. Price not stated.

HEINEMANN, WILLIAM, London.

The Play of Man. By Karl Groos, author of "The Play of Animals." Translated with the author's coöperation by Elizabeth L. Baldwin, with a Preface by J. Mark Baldwin, Ph.D., Hon. D.Sc. Oxon. Price not stated.

HEYWOOD, ABEL, AND SON, Oldham-street, Manchester.

Blackpool as a Health Resort. By Thomas Carr, M.D. Durh., D.P.H., M.R.C.S. Eng., &c. Price 1s.

IDRIS AND CO., Pratt-street, Camden Town, N.W.

Notes on Essential Oils, with Special Reference to their Use, Composition, Chemistry, and Analysis. By T. H. W. Idris, F.C.S. Second edition. Price not stated.

LONGHURST, 62 and 64, Grey-street, Newcastle-on-Tyne.

Manipulation (or Massage). By John Andrew Peters. Price not stated.

MACLEHOSE, JAMES, AND SONS, 61, St. Vincent-street, Glasgow.

Archæology, Education, Medical and Charitable Institutions of Glasgow. Edited by Magnus Maclean. Published by the Local Committee for the Meeting of the British Association, Glasgow, 1901. Price 3s. 6d.

MACMILLAN AND CO., Limited, London and New York.

Experimental Hygiene: An Introductory Course of Work in the Principles of Domestic Science. By A. T. Simmons, B.Sc. Lond., and E. Stenhouse, B.Sc. Lond. Price 2s. 6d.

Practical Histology. By J. N. Langley, M.A., Sc.D., F.R.S. Price 6s.

REBMAN, LIMITED, 129, Shaftesbury-avenue, W.

A Manual of Bacteriology. By Herbert U. Williams, M.D. Second edition, revised and enlarged. Price 7s. 6d.

A System of Physiologic Therapeutics. Edited by Solomon Solis Cohen, A.M., M.D. Volume III.: Climatology, Health Resorts, Mineral Springs. By F. Parkes Weber, M.A., M.D., F.R.C.P. Lond., with the collaboration for America of Guy Hinsdale, A.M., M.D. In two books. Price 21s. the volume.

The Pocket Formulary for the Treatment of Disease in Children. By Ludwig Freyberger, M.D. Vienna, M.R.C.P. Lond., M.R.C.S. Eng. Third edition, revised and enlarged. Adapted to the new British Pharmacopœia. Price 7s. 6d.

The Surgical Anatomy and Operative Surgery of the Middle Ear. By A. Broca, Paris. Translated by Macleod Yearsley, F.R.C.S. Price 3s. 6d.

The Therapeutics of the Röntgen Rays. By Dr. E. Schiff, Vienna. Translated by W. Deane Butcher, M.R.C.S. Price 1s.

Water and Water Supplies. By John C. Thresh, D.Sc. Lond., M.D. Vict., D.P.H. Camb., &c. Third edition, revised and enlarged. Price 7s. 6d.

RICHARDS, GRANT, 9, Henrietta-street, Covent-garden, W.C.

The Mental Functions of the Brain. By Bernard Hollander, M.D. Freiburg i.B., M.R.C.S., L.R.C.P. Lond. Price 21s.

The Case for the Factory Acts. Edited by Mrs. Sidney Webb, with a Preface by Mrs. Humphry Ward. Price 2s. 6d.

RUSSELL, W. R. AND CO., Limited, Paternoster-row, E.C.

How to Regain Health and Live a Hundred Years. By One who did it. Translated from the Italian of Lewis Cornaro. Fourth edition. Price 1s.

SOOTH, WALKER, Paternoster-square, E.C.

The Criminal. By Havelock Ellis. Third edition, revised and enlarged. Price 6s.

ST. JOHN AMBULANCE ASSOCIATION, St. John's Gate, Clerkenwell, E.C.

First Aid to the Injured. Arranged according to the Revised Syllabus of the First Aid Course of the St. John Ambulance Association by James Cantile, M.A., M.B., F.R.C.S. First edition. Price 1s.; by post 1s. 2d.

SWAN SONNENSCHNEIN AND Co., LIMITED, London.

Psychology, Normal and Morbid. By Charles A. Mercier, M.B., M.R.C.P., F.R.C.S. Price 15s.

VERLAG DIE MEDICINISCHE WOCHE, G.m.b.H., Friedrichstrasse 19, Berlin, S.W.

Technik des ersten Verbandes. By Dr. Hermann Engel, Berlin. Price, paper M1.50; cloth M2.00.

VOGEL, F. C. W., Leipzig.

Lehrbuch der Physiologie des Menschen. By G. von Bunge, Professor in Basel. Vol. II. Price 15 marks.

WRIGHT, J. AND Co., Stonebridge, Bristol.

Illustrations from "First Aid to the Injured and Sick." By Dr. Warwick and Dr. Tunstall. Diagrams for the use of lecturers. Sets of 16 sheets, price 27s. 6d., or in single sheets.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

BARBOUR, J. M., M.B. Glasg., has been appointed Resident Physician, Mendip Hills Sanatorium, Hill Grove, over Wells, Somerset.

BONNEY, W. F. VICTOR, M.D., M.S. Lond., F.R.C.S. Eng., M.R.C.P., has been appointed Physician Accoucheur to the St. Pancras and Northern Dispensary.

DAVIS, HARRY, M.R.C.S., L.R.C.P., L.S.A., D.P.H. Cantab., has been appointed Medical Officer of Health for Callington, Cornwall.

HODGSON, J. F., M.B., Ch.B. Vict., has been appointed Resident Medical Officer of the Halifax Union Poor-law Hospital.

MATHESON, RODERICK M., M.D., M.S. Edin., has been appointed Honorary Assistant Surgeon to Noble's Isle of Man Hospital.

PARSONS, JOHN HERBERT, M.B., B.S., B.Sc. Lond., F.R.C.S., has been appointed Curator and Librarian to the Royal London Ophthalmic Hospital.

PEGGE, EDWARD VERNON, L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer of Health for Briton Ferry, Glamorgan-shire.

RODGERS, R. CRAIG, M.R.C.S., L.R.C.P. Lond., has been appointed Honorary Medical Officer to the Burnley Victoria Hospital, vice Dr. James Mackenzie, resigned.

WHITE, MAURICE FORBES, M.B., Ch.B. Aberd., has been appointed Resident Surgeon to the Birmingham General Dispensary.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

BELGRAVE HOSPITAL FOR CHILDREN.—Honorary Dental Surgeon.  
BETHNAL GREEN INFIRMARY.—Assistant Medical Officer. Salary at rate of £100 per annum, with furnished apartments, board, and washing.

BIRMINGHAM CITY ASYLUM.—Junior Assistant Medical Officer, unmarried. Salary £150 a year, with board, apartments, and washing.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon, unmarried, Salary £150 per annum, with rooms, fire, lights, and attendance.

BRADFORD ROYAL INFIRMARY.—House Surgeon, unmarried. Salary £110 per annum, with board and residence. Also Dispensary Surgeon, unmarried. Salary £100 per annum, with board and residence.

BRISTOL GENERAL HOSPITAL.—Assistant House Surgeon. Salary £70 per annum, with board, residence, &c.

CHIKSEA, BROMPTON, AND BELGRAVE DISPENSARY, Sloane-square, Chelsea, S.W.—Honorary Surgeon.

CHIKSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Registrar. Honorarium 20 guineas per annum.

CORNWALL COUNTY ASYLUM, Bodmin.—Junior Assistant Medical Officer, unmarried. Salary £120, rising to £150, with board, apartments, laundry, &c.

DERBY COUNTY ASYLUM, Mickleover.—Junior Assistant Medical Officer. Salary £110, rising to £130 per annum, with apartments, board, washing, and attendance.

DERBYSHIRE ROYAL INFIRMARY, Derby.—Assistant House Surgeon for six months. Salary £30 for the six months, with board, residence, and washing.

DUBLIN, TRINITY COLLEGE.—King's Professorship of the Institute of Medicine (Physiology and Histology) in the School of Physic.  
ESSEX COUNTY ASYLUM, Brentwood.—Junior Assistant Medical Officer. Salary £140 per annum.

GLOUCESTER GENERAL INFIRMARY AND GLOUCESTERSHIRE EYE INSTITUTION.—Assistant House Surgeon for six months. Remuneration at rate of £30 per annum, with board, residence, and washing.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Medical Officer. Salary £200 per annum, with board and residence.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.—Senior Clinical Assistants for six months, renewable.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—House Surgeon, unmarried, for six months. Salary £20, washing allowance £2 10s., with board and residence; also Surgeon Dentist.

HUDDERSFIELD INFIRMARY.—Junior House Surgeon. Salary £80 per annum, with board, residence, and washing.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House Surgeon. Salary £75 per annum, with residence, board, and washing.

LEICESTER INFIRMARY.—Assistant House Surgeon. Salary £80 per annum, with board, apartments, and washing.

LONDON COUNTY ASYLUM, Hanwell, W.—Junior Assistant Medical Officer. Salary £150 per annum, with board, apartments, and washing.

LONDON DISPENSARY, 27, Fournier-street, Spitalfields, E.—Assistant Medical Officer. Salary £90 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House Surgeon. Salary £70 per annum, with board and residence.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon.—Honorarium at rate of £50 per annum and board.

MORPETH DISPENSARY.—House Surgeon, unmarried. Salary £120 per annum, with rooms, coals, gas, and attendance.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Fitzroy-square, W.—Clinical Assistant for six months. Honorarium at rate of £35 per annum.

PLYMOUTH BOROUGH ASYLUM.—Assistant Medical Officer, unmarried. Salary £150 per annum, rising to £200, with apartments, board, and washing.

PRETORIA CIVIL HOSPITAL, Transvaal.—Resident Assistant Medical Officer for three years, unmarried. Salary £300, £350, and £400, with board, lodging, and washing. Allowance of £60 on arrival in Pretoria for travelling expenses.

ROTHERHAM HOSPITAL.—Assistant House Surgeon. Salary £80 per annum, with board, &c.

ROYAL CORNWALL INFIRMARY.—House Surgeon, unmarried. Salary £100, increasing by £10 a year, with board and apartments.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Ventnor.—Resident Medical Officer, unmarried. Salary £150 per annum, with board and lodging.

ROYAL SEA BATHING HOSPITAL, Margate.—Resident Surgeon, as Junior for six months and then as Senior for the like period. Salary at rate of £80 and £120 per annum respectively, with board and residence. Also Honorary Visiting Surgeon and Honorary Assistant Visiting Surgeon.

ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Surgeon and Assistant Surgeon.

ROYAL VICTORIA HOSPITAL, Belfast.—Medical Superintendent. Salary £300 per annum, with board and apartments.

SALISBURY INFIRMARY.—House Surgeon, unmarried. Salary £100 per annum, with board, lodging, and washing.

TEIGNMOUTH HOSPITAL, SOUTH DEVON.—House Surgeon. Salary £70 a year, with board, lodging, and washing.

WESTERN GENERAL DISPENSARY, Marylebone-road.—Honorary Physician.

YORK COUNTY HOSPITAL.—House Surgeon. Salary £100 per annum, with board, residence, and washing.

YORK DISPENSARY.—Resident Medical Officer, unmarried. Salary £110 a year, with board, lodging, and attendance.

The Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies for Certifying Surgeons under the Factory Acts at Buckingham; and at Ironbridge and Bridgnorth, Salop.

## Births, Marriages, and Deaths.

### BIRTHS.

COLLICTT.—On the 14th Oct., at 2, S. Peter's-place, Brighton, the wife of Arthur M. Collicutt, M.B., of a daughter.

FOULDS.—On Oct. 8th, at Ashlea, Droitwich, the wife of Francis H. Foulds, M.R.C.S., L.R.C.P. Lond., of a daughter.

PERSHOUSE.—On Oct. 13th, at Chipchase, Hadley Wood, the wife of Frank Pershouse, M.R.C.S., L.R.C.P. Lond., of a son.

RAY.—On the 11th inst., at 48, The Crescent, Salford, the wife of John Howson Ray, Ch.M., F.R.C.S., of a son.

SMITH.—On Sept. 8th, at Cawnpore, N.W.P. India, the wife of Captain Herbert Austen Smith, I.M.S., of twins, boy and girl.

SPRAGUE.—On Oct. 7th, at Saffron Walden, the wife of W. Carr Sprague, M.D. Edin., of a son.

STANFORD.—On Oct. 7th, at Sutton Valence, Maidstone, the wife of W. Bedell Stanford, M.R.C.S., L.R.C.P. Lond., of a daughter.

### MARRIAGES.

BROWN—PULLEN.—On Oct. 16th, at St. Helen's Church, Abingdon, Berks, by the Rev. H. T. Maitland, M.A., Thomas Henry Brown, M.A., M.B., B.C. Camb., of Hampton-in-Arden, Warwickshire, younger son of Thomas Brown, Hunstanton, Norfolk, to Isabel Mary, eldest daughter of Richard Pullen.

HANCOCK—LEUCHARS.—On the 15th October, 1901, at the parish church, Isleworth, by the Rev. J. H. Champion McGill, assisted by the Rev. C. A. Morgan, vicar of All Souls, St. Margaret's, Twickenham, George Charles Hancock, M.R.C.S., L.R.C.P., D.P.H. Lond., second son of Thomas Webster Hancock, of Treskelly, St. Margaret's, Twickenham, to Edie, only daughter of John Walter Leuchars, of The Chestnuts, St. Margaret's, Twickenham, and of Durban, Natal.

PRITCHARD—SILLS.—On Oct. 8th, at Barrowby Church, Grantham, Edward J. Pritchard, M.R.C.S., L.R.C.P. Lond., to Maud, youngest daughter of George Silles.

### DEATHS.

DICKINSON.—On Oct. 10th, at 2, Grove-park, Liverpool, in his 59th year, Edward Harriman Dickinson, M.D., F.R.C.P.

LIVINGSTONE.—On Oct. 4th, at 17, Hill-street, Wishaw, Lanarkshire, James Livingstone, M.D., L.R.C.S.E., J.P., aged 67 years.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## Notes, Short Comments, and Answers to Correspondents.

### "HOW DISEASE IS SPREAD."

At Coventry, on Oct. 9th, a married woman was fined 2s. 6d. and costs for exposing her child suffering from scarlet fever. The town clerk said that there had been an extensive epidemic of scarlet fever in the city and remarked that it was useless for the authorities to spend money on isolation if patients were allowed to run about the streets. Quite so, but until the law deals more severely with people who for their own individual convenience endanger the community at large we fear there will be little, if any, improvement in this state of things. Only last week we commented on the case of a man who travelled from Leeds to Southampton knowing himself to be suffering from scarlet fever. In this case he was fined 40s. and costs, but if the maximum penalty of £5 were more often inflicted we should probably hear of these cases less frequently. Yet another case is reported from Marton, Lancashire, in which a child suffering from scarlet fever was on two occasions exposed on the public highway though the guardian of the child had been warned by the sanitary inspector that the patient must not leave the house until the rooms had been disinfected. In this case the magistrate remarked that in his opinion several of the additional cases reported (the medical officer in his evidence had stated that there had been one other case previous to the present one and there had been 28 cases since) had been brought about in consequence of the child in question being exposed. The fine was 10s. and costs in each case.

### THE TREATMENT OF ASTHMA.

To the Editors of THE LANCET.

SIRS,—I should be very much obliged if you or any of your readers would advise me on the following case in the next issue of THE LANCET. A boy, aged 15 years, has suffered for five years from asthma with bronchial troubles. He is a strong boy except when the asthma attacks come on and has been brought up on a farm. His parents' residence is on a very bleak spot, almost surrounded by the sea and swept by every wind, especially the east. His parents have no relatives in any inland or sheltered place and are not in very good circumstances. The boy's education has not been carried out very well. Could you advise me in any way what to do for him? Is there any institution, farm, or any place in the three kingdoms where he would be received and get some education? His parents could only afford a very small outlay. They are of the better-class farmers but not well off. If the boy could get to some sheltered inland place he would most probably get over his attacks altogether.

I am, Sirs, yours faithfully,

Oct. 10th, 1901.

M. B. T.

### "HIGH FREQUENCY CURRENTS AND DIABETES."

To the Editors of THE LANCET.

SIRS,—In answer to S. L. B. W. (THE LANCET, Oct. 5th, p. 954) who desires information on the influence and application of Tesla's currents in diabetes, I am pleased to say that in many cases great good can be effected and the elimination of sugar reduced to a minimum. Failure by this means has been experienced, not infrequently, but attention to the following details will reduce the percentage of failures: (1) the cause of the glycosuria (as this should be reckoned as a symptom and not as a disease), and (2) the position of the electrode. 1. The cause may be (a) cerebro-spinal, from either tumours, extravasations, or simply hyperæmia in the region of the floor of the fourth ventricle itself or in the cervical or upper dorsal regions of the spinal cord, or (b) pancreatic, from disease of that organ. 2. The position of the electrode in (a) should be close to the occiput. The electrode should be small and the current at first sent through the resonator from the first or second coil of the solenoid, then through the third at the second séance, and so on until full power is reached. Ten minutes daily is quite long enough. In (b) the electrode should be large and placed over the region of the head of the pancreas, with full power of current from the commencement. A séance should last 15 minutes. The interval between the applications and the duration of the series will be best determined in each individual case by the temperature of the patient.

I am, Sirs, yours faithfully,

HORACE MANDERS, M.D. Brux., F.R.C.S. Eng.

Bentinck-street, W., Oct. 14th, 1901.

### MEDICAL BOOKKEEPING.

MR. EDMUND SAYWELL, chartered accountant, of 6, Wheeler-gate, Nottingham, has submitted to us specimen rulings of books which he has specially prepared for the keeping of the accounts of the general practitioner. The day-book and attendance record are ruled to exhibit on one opening the attendances on a patient for a complete month, and any sums which may be paid by the patient, the totals of debits and credits at the end of the month being carried forward to the ledger, which latter is ruled for quarterly accounts and takes in 12 months at an opening. The private cash-book is designed to show the

whole of the financial transactions of the practitioner, and from it he can ascertain at any time the exact state of his bank balance. As the result of our imaginary experience in visiting patients, giving the usual attention to their ailments, and receiving certain amounts from them on account of professional services; paying for drugs, instruments, horses, servants' wages, butchers' and grocers' bills, and rent and taxes; and crediting ourselves with our (still imaginary) receipts from investments, rents of property, &c., and also from patients' fees, and entering all these details up in the rulings provided by Mr. Saywell, we feel able to say that his scheme of medical bookkeeping is simple, convenient, and well suited to the requirements of the busy practitioner.

### "A NEW 'CONSCIENTIOUS OBJECTION.'"

To the Editors of THE LANCET.

SIRS,—The great value of hæmoglobin preparations in certain morbid conditions being now well-established, it interested me to find a patient suffering from neurasthenia with anæmia professing a conscientious objection to taking one of the best known of these preparations on the ground of its being "blood," and therefore expressly forbidden in Holy Writ both to Jew and Christian. In their advertisement of this preparation it is set forth by the manufacturers that it consists in effect of dehydrated blood rendered palatable by the addition of glycerine and a little wine. This is certainly an improvement on what was, I believe, the original method of administering hæmoglobin (depicted with horrid realism in a picture entitled "Les Buveurs de Sang" in the Salon of 1898)—viz., the conducting of patients to the abattoirs, where the blood was handed to them in tumblers fresh from the severed vessels. One can understand objections apart from any question of creed being made to this method of taking a remedy. As, however, religious scruples and sickness are frequently of intimate association (men have died for conscience' sake before now), it is possible for this conscientious objection to a therapeutic agent likely to be much used in the near future to become widespread. The passages of Scripture on which it is founded are as follows. St. James, speaking in Acts xv. 19, 20, 21, says:—

"Wherefore my sentence is, that we trouble not them, which from among the Gentiles are turned to God;

But that we write unto them, that they abstain from pollutions of idols, and from fornication, and from things strangled, and from blood.

For Moses of old time hath in every city them that preach him, being read in the synagogues every sabbath day."

And again in verses 28 and 29:—

"For it seemed good to the Holy Ghost, and to us, to lay upon you no greater burden than these necessary things;

That ye abstain from meats offered to idols, and from blood, and from things strangled, and from fornication," &c.

Also in Acts xxi. 25, the elders of the believing Jews addressing St. Paul say:—

"As touching the Gentiles which believe, we have written and concluded that they observe no such thing, save only that they keep themselves from things offered to idols, and from blood, and from strangled, and from fornication."

These passages, as far as drinking blood is concerned, have reference to the charge in the Mosaic code to be found in Leviticus xvii. 10-14, the last verse of which runs as follows:—

"For it is the life of all flesh; the blood of it is for the life thereof: therefore I said unto the children of Israel, ye shall eat the blood of no manner of flesh: for the life of all flesh is the blood thereof: whosoever eateth it shall be cut off."

And again in Deuteronomy xii. 23-24:—

"Only be sure that thou eat not the blood: for the blood is the life; and thou mayest not eat the life with the flesh.

Thou shalt not eat it; thou shalt pour it upon the earth as water."

The drinking of blood was also forbidden to Noah and his descendants in Gen. ix. 4. According to the Revised Version "life" may also be translated as "soul." Fraser, in his monumental work "The Golden Bough," points out that this belief that the life or soul of the animal was identical with the blood was not confined to the Jews. It was or is shared by widely divergent races as represented by the Esthonians, the Romans, the Arabs, some of the Papuan tribes and the North American Indians, who in consequence feared to drink it lest the soul of the animal should enter their bodies. On the other hand, it is interesting to note that in one more therapeutic measure we have been anticipated by the Chinese. In a work entitled "Social Life of the Chinese," by the Rev. Justus Doolittle, an American missionary, published in 1865, we read, p. 390:—

"The Chinese here (Fuhchau) are in the habit of using as food the blood of several domestic animals, as fowls, swine, and goats. .... Some sick people or those who are troubled with want of appetite are fond of the blood of the goat boiled with vinegar and onions or garlic. It is said that thus prepared the blood gives them a relish for their food."

As to modern Christians feeling scruples about taking blood, it seems to me (without, however, any wish to enter the arena of religious

controversy) that the reference to the synagogues in Acts xv. 21 (quoted above) supplies the reason for the injunction to the early Christians—they were not to scandalise the devout Jews by doing things repugnant to the Jewish code of morals and thereby causing prejudice against the New Religion. Fornication is, of course, forbidden elsewhere in the New Testament, but the objections to the other items have surely lost their *raison d'être* at the present day; else roast chicken would also be taboo, and the only butcher for the Christian would be the kosher. As other medical men may meet with this objection and be nonplussed unless forewarned, I beg to offer the above suggestions for overcoming scruples. It is, I believe, mostly confined to that section of the religious community known as Plymouth Brethren, but it may become more widely diffused. There is no complaint so catching as a "conscientious objection."—I am, Sirs, yours faithfully,

J. S. MACINTOSH, M.R.C.S. Eng., L.R.C.P. Lond.

Platt's-lane, Hampstead, Oct. 14th, 1901.

#### A PLANT-BEARING MAMMAL.

In the October number of *Knowledge* Mr. R. Lyddeker gives an interesting account of the striking peculiarity which is to be observed in the outer hair of the sloths inhabiting the tropical forests of South and Central America. The outer hair of these animals is more or less green in colour—a very rare tint among mammals—the object of this colourisation being apparently to assimilate the animal to its leafy surroundings. It has long been known that this peculiar green tint is due to the presence of algae, but the subject has recently been reinvestigated by Dr. W. G. Ridewood, and it is these investigations which have suggested Mr. Lyddeker's article. The algae grow in transverse cracks of the outer sheath of the hair in the *ai*, but in the two-toed sloth the hair which lacks the outer sheath of the *ai* is furrowed with longitudinal grooves in which the algae flourishes. The species of the algae is also quite distinct in the two cases. After briefly discussing the question of "mimicry" Mr. Lyddeker deals with the manner in which the growth of algae is maintained from one generation of sloths to another. "The only rational explanation which presents itself is that the young sloths become infected with alga-spores from their parents. .... Dr. Ridewood has pointed out that in very young individuals of the two-toed sloth a large proportion of the hairs are devoid of grooves, and it would therefore seem that the young sloths do not develop a growth of alga till about the time they are old enough to leave the maternal arms and hang independently on the leafy and lichen-clad boughs of their native forests."

#### THE PREPARATION OF WAX MODELS.

In a paper read before the Philadelphia College of Physicians by Dr. J. F. Schomberg and published in the University of Pennsylvania *Medical Bulletin* appears some useful information on the making of wax models for clinical teaching and other purposes. The plaster of Paris used by dentists is recommended for the casts and is prepared for use by sprinkling it in handfuls or through a sieve into a basin of water until the water will absorb no more plaster. After the plaster is submerged the mass is stirred until it acquires a creamy consistence, when it is poured upon the skin. Previously, however, the surface of the part to be modelled is rubbed with olive oil or where hair is present with a stiff ointment such as resin cerate. The eyelashes should be well greased with vaseline. The following is the wax composition employed: white wax, one part; yellow wax, two parts; paraffin (about 54° C. melting-point), one part; starch, two parts; talcum, three parts. The wax and paraffin are melted together upon a water-bath in an ordinary double boiler, and the starch and talcum, previously mixed, are thoroughly stirred into the mass. "Either a small quantity of powdered carmine may be rubbed up with the starch and talcum, or it may be dissolved in alcohol and the necessary quantity poured in and stirred. The wax is now poured into the mould up to the brim and then poured back again into the receptacle. It is important in this first pouring to bring the wax rapidly into contact with the entire surface of the mould, otherwise indelible furrows will be produced in the resulting models. The pourings are now repeated until the model has acquired a sufficient thickness (ordinarily from one-quarter to three-eighths of an inch). It is then allowed to cool, after which the plaster cast is broken piece-meal from the model. Where there are no undercuts the model may often be removed from the cast without destroying the latter. To accomplish this the model must be removed before it is quite hard, while it still has some elasticity."

#### "SUPERFLUITY OF CATS."

THE *Evening News* of Tuesday, Oct. 8th, has the following:—

"One of the strangest applications ever made was considered by the Works Committee of the St. Pancras Borough Council at its last meeting. A lady tendered for cremation in the public destructor sixty or eighty unwanted cats per diem, for which she was prepared to pay 1d. a head. As, however, it was stated that the home she conducts charges 1s. per cat, it was recommended that the application should not be entertained. Ultimately the matter was adjourned for further information from the Health Committee."

Persons who advertise for lost cats, we believe, usually receive from an anti-vivisection society circulars which by inference suggest that

the advertiser's cat would probably be found in one of our scientific research laboratories. Such suggestions are hardly worthy of notice by intelligent people, and from the above paragraph it would seem that more cats than are required for purposes of science are to be found without robbing other people of their pets.

#### HOMES FOR EPILEPSY.

To the Editors of THE LANCET.

SIRS,—Would any of your readers tell me of an institution where a young man subject to epileptic fits could be taken by paying a small sum per week? I should esteem it a great favour if anyone could inform me.

Oct. 17th, 1901.

I am, Sirs, yours faithfully,

M.D.

#### STEPNEY OLD CHURCH.

ART and antiquity have suffered irreparable loss in the destruction by fire of the chancel of Stepney Church, a building dating from 1485. The glass and the carved work of roof and stalls can, of course, never be really replaced. The church is celebrated for its monuments which are remarkable either for commemorating famous men or for the curiousness of the inscriptions upon them, of which the following is an example. The simplicity and dignity of the language, as well as the commemoration of the fate which overtook the hapless family, may be commended at the present juncture to the anti-vaccination fanatics.

"Here Thomas Saffin lies interred—Ah why?

Born in New England, died in London die.

Was the third son of eight begot upon

His mother Martha by his father John.

Much favoured by his prince he 'gan to be,

But nipt by death at th' age of twenty-three,

Fatal to him was that we small-pox name,

By which his mother and two brethren came

Also to breathe their last nine years before,

And now have left their father to deplore

The loss of all his children with his wife,

Who was the joy and comfort of his life.

Deceased June 18th, 1687."

#### QUERIES ABOUT NEW ZEALAND.

A CORRESPONDENT wishes to know whether any of our readers can give him information on the following points: (1) the name of the best New Zealand medical journal; (2) up-to-date works descriptive of the country; (3) is it a good healthy country to live in and is there plenty of sunshine?

*H<sub>2</sub>BO<sub>3</sub>*.—The subject which our correspondent refers to has been dealt with again and again in our columns. Little more need be said until the report of the Departmental Committee appointed to investigate the use of preservatives in food is published and we learn that this report has already been laid upon the table of the House of Commons.

Mr. A. Lemarchant.—1. We fancy that there is no limit of time other than the statutory limit allowed for ordinary debts. 2. The ordinary notification slip is generally allowed as a claim, and we do not think that the local authority in question has any right to demand that another set of certificates should be forwarded.

Major.—We think that B was wrong to conduct such a canvass unknown to A.

D. M. K.—We think our correspondent must have a claim.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

#### METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 17th, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 a.m.
Oct. 11	30.16	W.	...	63	56	48	53	55	Raining
" 12	30.10	E.	...	91	63	51	51	53	Foggy
" 13	30.09	S.E.	...	76	58	50	48	52	Foggy
" 14	29.94	S.E.	...	78	59	48	49	51	Hazy
" 15	29.79	S.E.	...	69	58	47	47	49	Foggy
" 16	29.59	S.E.	0.05	68	58	49	53	54	Raining
" 17	29.42	S.	0.43	106	64	52	53	54	Fine

During the week marked copies of the following newspapers have been received:—*Sunday Times, Liverpool Daily Post, Yorkshire Post, Surrey Advertiser, Cardiff Mail, Morning Advertiser, Hertfordshire Mercury, Reading Mercury, Windsor and Eton Express, Mining Journal, Bristol Mercury, Leeds Mercury, Deutsche Medizinische Wochenschrift, Notts Express, Glasgow Herald, Sunderland Echo, Birmingham Gazette, Evening Standard, Standard, Bridgewater Mercury, Vanity Fair, The Globe, Science Signings, Scientific American, Literary Digest, Engineer, &c.*

# Medical Diary for the ensuing Week.

## OPERATIONS.

### METROPOLITAN HOSPITALS.

**MONDAY (21st).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynaecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopaedic (2 P.M.), City Orthopaedic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

**TUESDAY (22nd).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Bar (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**WEDNESDAY (23rd).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopaedic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

**THURSDAY (24th).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynaecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**FRIDAY (25th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**SATURDAY (26th).**—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

## SOCIETIES.

**TUESDAY (22nd).**—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Paper:—Dr. H. Campbell Thomson: Acute Dilatation of the Stomach, with illustrative cases.

**WEDNESDAY (23rd).**—DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND (20, Hanover-square, W.).—4.30 P.M. Informal Exhibition of Cases. 5 P.M. Meeting.

**HUNTERIAN SOCIETY** (London Institution, Finsbury-circus, E.C.).—8.30 P.M. Clinical Evening.

**FRIDAY (25th).**—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Exhibition of Clinical Cases followed by Discussion. Patients will be in attendance from 8 P.M. to 9 P.M.

**INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH** (Hotel Cecil, Strand, W.C.).—5 P.M. Annual General Meeting. Prof. A. Wynter Blyth: Ventilation, (Presidential Address). 7 P.M. Annual Dinner.

## LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

**MONDAY (21st).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. J. J. Pringle: Clinique. (Skin.)

**POST-GRADUATE COLLEGE** (Lecture Room, West London Hospital, Hammersmith-road, W.).—Mr. R. Lloyd: The Administration of Anesthetics in Nose, Throat, and Mouth Cases.

**TUESDAY (22nd).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. R. L. Bowles: Clinique. (Medical.)

**POST-GRADUATE COLLEGE** (Lecture Room, West London Hospital, Hammersmith-road, W.).—Mr. Baskin: Minor Surgery.

**NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC** (Queens-square, Bloomsbury).—3.30 P.M. Sir W. Gowers: Cases in Hospital.

**WEDNESDAY (23rd).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. J. Berry: Clinique. (Surgical.)

**POST-GRADUATE COLLEGE** (Lecture Room, West London Hospital, Hammersmith-road, W.).—Mr. Eccles: Surgical Anatomy.

**LONDON THROAT HOSPITAL** (204, Great Portland-street, W.).—5 P.M. Dr. Stoker: Chronic Glandular Diseases of Naso-Pharynx. (Post-Graduate Course.)

**THURSDAY (24th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.)

**POST-GRADUATE COLLEGE** (Lecture Room, West London Hospital, Hammersmith-road, W.).—Dr. Ball: The Examination of the Throat and Nose.

**THE HOSPITAL FOR SICK CHILDREN** (Gt. Ormond-street, W.C.).—4 P.M. Dr. Colman: Clinical Demonstration.

**CHANCING-CROSS HOSPITAL.**—4 P.M. Dr. Eden: Gynaecological Cases. (Post-Graduate Course.)

**LONDON TEMPERANCE HOSPITAL** (Hampstead-road, N.W.).—2 P.M. Dr. S. Fenwick: Clinical Demonstration.

**FRIDAY (25th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. StClair Thomson: Clinique. (Throat.)  
**POST-GRADUATE COLLEGE** (Lecture Room, West London Hospital, Hammersmith-road, W.).—Dr. Saunders: Therapeutics.  
**LONDON TEMPERANCE HOSPITAL** (Hampstead-road, N.W.).—2 P.M. Dr. P. Parkinson: Clinical Demonstration.

## EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side of the paper only. AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

## MANAGER'S NOTICES.

### TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsgagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Office, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.			TO THE COLONIES AND ABROAD.		
One Year	...	£1 12 6	One Year	...	£1 14 8
Six Months	...	0 16 3	Six Months	...	0 17 4
Three Months	...	0 8 2	Three Months	...	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR. CHARLES GOOD, THE LANCET Office, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or on any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and Agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND

### Communications, Letters, &c., have been received from—

- A.**—Mr. F. P. Atkinson, Bexhill; Association for the Supply of Pure Vaccine Lymph, Lond., Secretary of; Miss A.; Dr. J. Albano, Guardia Peticara, Italy; Dr. G. N. Adams, Kenfig Hill; Mr. A. R. Anderson, Nottingham; Messrs. Arnold and Sons, Lond.; Mr. W. Armstrong, Buxton; Mr. R. F. Abbey, Lond.; Messrs. R. Anderson and Co., Lond.
- B.**—Mr. E. Baker, Birmingham; T. B. Browne, Ltd., Lond.; Messrs. Brady and Martin, Newcastle-on-Tyne; Dr. H. W. Bernall, Lancaster; Lieutenant-Colonel D. Bruce, R.A.M.C., Maitland, South Africa; Messrs. Burroughs, Wellcome, and Co., Lond.; Bourne Castle Sanatorium, Belbroughton, Secretary of; Docteur L. Bourgeois, Bagé le Châtel, France; Mr. C. Burch, Lond.; Board of Education, Secretary of; Mr. M. Beasley, Bath; Messrs. Boulton and Paul, Norwich; Mr. H. L. Brown, Lond.; Messrs. John Bell and Co., Lond.; Dr. J. M. Barbour, Hill Grove; Mr. C. L. Bedford, Birmingham; Dr. F. G. Bushnell, Plymouth; Mr. B. Badcock, Staveley; St. Bartholomew's Hospital, Warden of.
- C.**—Mr. F. B. Cutts, Leicester; Messrs. Carnrick and Co., Lond.; Mr. D. C. Creaton, Brighton; Messrs. Callard and Co., Lond.; Messrs. T. Cook and Son, Lond.; Messrs. W. P. and W. Cox, Leicester; O. J. S.; C. H. B.
- D.**—Mr. P. J. Drought, Ilford; Messrs. H. Dawson and Co., Lond.; Doré Gallery, Lond.; Mr. D. O. Dykes, Edinburgh; Derby County Asylum, Secretary of; Mr. E. Darke, Lond.; Derbyshire Royal Infirmary, Derby, Secretary of.
- E.**—Mr. F. R. Eaton, Norwich; Epsom College, Head Master of; Messrs. Ewart, Seymour, and Co., Lond.
- F.**—Mr. J. Flach, Lond.; F. S. P.; Messrs. Ferris and Co., Bristol; Mr. W. T. Freeman, Bristol; Messrs. A. W. Forsaith and Co., Lond.; Staff-Sergeant Fallows, Renmore; Mr. H. Fulham-Turner, Muswell Hill; Dr. T. Fisher, Bristol; Messrs. Farmer, Lane, and Co., Lond.; Messrs. Fletcher, Lond.
- G.**—Sir W. R. Gowers, Lond.; Gloucester General Infirmary, Secretary of; Mrs. Gorton, Newtimber; Mr. Godman, Lond.; Messrs. Groeff and Co., Lond.; Messrs. Greenham and Co., Shanklin; Guild of St. Luke, Hon. Secretary of; Mr. H. Gilford, Reading; Earl Grey, Lond.
- H.**—Mr. E. Haywood, Woolston; Dr. S. H. Habershon, Lond.; Messrs. Hastings Bros., Lond.; Messrs. J. Hatton and Co., Lond.; Mr. W. Hill, Lond.; Dr. F. Hare, Waterhouses.
- I.**—Ingham Infirmary and South Shields Dispensary, Secretary of.
- J.**—Mr. W. R. Jenkins, New York; Dr. W. M. Jones, Torquay.
- K.**—Mr. F. H. Knaggs, Huddersfield; Kent and Canterbury Hospital, Secretary of; Mr. W. Kühlenthal, Lond.
- L.**—Dr. A. P. Luff, Lond.; Messrs. Lee and Nightingale, Liverpool; Local Government Board, Medical Officer of; Herr Lingner, Dresden; Mr. A. W. Lemarchand, Barnstable; Mr. Lett, Worcester.
- M.**—Mr. J. H. Mackintosh, Lond.; Dr. J. More, Kettering; Manchester Medical Agency, Secretary of; Mr. Alexander Murchison, Uig; Monkwearmouth and Southwick Hospital, Sunderland, Secretary of; Messrs. Meister, Lucius, and Brünning, Hoechst-a-Main; Messrs. Mather and Crowther, Lond.; Matlock House Hydropathic Co., Lond.; Messrs. Macmillan and Co., Lond.; Dr. S. Maclean, Swindon; Macclesfield General Infirmary, Secretary of; May's Advertising Agency, Lond.; Mr. J. M. Munro, Ltd., Edinburgh.
- N.**—Mr. D. Nutt, Lond.; Mr. H. Needes, Lond.; Mr. J. C. Needes, Lond.
- O.**—Professor Ogston, Aberdeen; Messrs. Orridge and Co., Lond.; Owner, East Twickenham.
- P.**—Dr. L. Procksch, Krantzkoop; Dr. J. B. Pettigrew, St. Andrews; Mr. Y. J. Pentland, Edinburgh; P. J. B.; Mr. S. Paget, Lond.; Dr. D. M. Paton, Victoria, Australia; Patient; Prideaux's Pure Casein and Life Food Co., Motcombe; Messrs. Peacock and Hadley, Lond.
- Q.**—Queen's Jubilee Hospital, Secretary of.
- R.**—Herr S. Rudlauer, Berlin; Dr. J. Ritchie, Oxford; Miss Rogers, Drottwich; Mr. H. Roberts, Hayle; Dr. S. Rideal, Lond.; Royal College of Surgeons of England, Lond., Secretary of; Royal College of Surgeons of Ireland, Dublin, Registrar of; Mr. T. S. Raven, Broadstairs; Royal South Hants Hospital, Southampton, Secretary of; Rotherham Hospital and Dispensary, Secretary of; Messrs. W. S. Rothband and Co., Manchester.
- S.**—Mr. E. Sellon, Richmond; Miss H. Stavelly, Birmingham; Messrs. Street and Co., Lond.; Dr. H. Scurfield, Sunderland; Dr. A. T. Schofield, Lond.; Messrs. W. B. Saunders and Co., Lond.; Mr. H. W. Scriven, Lond.; Messrs. Smith, Elder, and Co., Lond.; Dr. F. J. Smith, Lond.; State Children's Association, Secretary of; Dr. F. Shuffield, botham, Newcastle-under-Lyne; Mr. S. Stephenson, Bombay; Dr. P. Blackie Smith, San Remo; Captain H. Smith, I.M.S., Jullunder City, India; Mr. H. Sell,

Lond.; Mr. A. M. Sheild, Lond.; Seaman's Hospital Society, Secretary of; Scholastic, Clerical, &c., Association, Lond.; Smith's Advertising Agency, Lond.; Dr. T. C. Squance, Newcastle-on-Tyne; Sanitary Institute, Council of; Mrs. M. L. Skinner, Winchelsea.

**T.**—Dr. F. W. Tunncliffe, Lond.; Dr. W. H. Thompson, Belfast; Messrs. J. and F. Timms, Lond.; Dr. G. Turner, Pretoria; Mr. H. Tilley, Lond.

**V.**—Messrs. J. H. Vail and Co.,

New York; Mr. W. Vale<sup>th</sup>line, Kettering.

**W.**—Mr. F. W. Waters, Sheerness; Mr. R. E. Woodford, Baldock; Messrs. J. Wright and Co., Bristol; Dr. D. Walsh, Lond.; Dr. W. Whittle, Belfast; Walker-Gordon Laboratory, Lond.; *Willow County Mirror*, Salisbury; Western General Dispensary, Secretary of; Messrs. R. F. White and Son, Lond.; Messrs. W. Wood and Co., Lond.; Messrs. Willing, Lond.

### Letters, each with enclosure, are also acknowledged from—

- A.**—Messrs. Allen and Hanburys, Lond.; A. E. H.; A. F. L.; A. S.; A. J. A.; Dr. H. DeM. Alexander, Murchy; Alexander Manufacturing Co., Lond.; A. D. T.; A. W.
- B.**—Mr. G. F. Bates, Liverpool; Mr. S. I. Baker, Abingdon; Dr. L. Bruce, West Cornforth; Mr. H. A. Bull, Great Haywood; Miss Barlow, Southport; Miss Brook, Bexhill-on-Sea; Dr. J. Biggam, Upper Gornal; Mr. J. Berry, Lond.; Brighton and Hove Cooperative Association, Secretary of; Messrs. Bates, Hendy, and Co., Reading; Dr. T. H. Brown, Hampton-in-Arden; Mr. P. Baker, Birmingham.
- C.**—Dr. C. Cochrane, Sheffield; Dr. E. H. Colbeck, Lond.; Clayton Hospital, Wakefield, Secretary of; Chesterfield, &c., Hospital, Secretary of; C. A. B.; Cortland Wagon Co., Lond.; Cardiff Infirmary, Secretary of; Mr. H. W. Carson, Lond.; C. B.; Messrs. S. Clark and Co., Lond.; Mr. J. B. Cox, King's Lynn; Dr. A. M. Collett, Brighton.
- D.**—Messrs. Down Bros., Lond.; Dr. R. J. Dick, Dunbar; D. W.; Mr. R. Davis, Lond.; Mr. R. B. Daly, Dalkey.
- E.**—Mr. G. C. Edwards, Lond.; Mr. D. E. Edwards, Llwynypia; Messrs. Eason and Son, Dublin; E. E.
- F.**—Farnborough Urban District Council, Secretary of; Fellow's Medical Manufacturing Co., Lond.; Mr. Forbes, Greenock; Dr. E. L. P. Furness, Hastings; Mr. A. W. Fuller, Melling.
- G.**—Mr. Gann, Hayling Island; Messrs. Gale and Co., Lond.; Dr. G. C. Garratt, Lond.; Dr. T. H. Gibson, Kirkby Stephen; Glasgow Royal Asylum, Treasurer of; G. M., Manchester; Dr. H. C. Garth, Calcutta; G. F. L.; Dr. D. M. Gill, Haslingden; Messrs. Garrod and Harris, Wells.
- H.**—Dr. S. M. Hamill, Burnham; Holloway and North Islington Dispensary, Secretary of; H. S.; H. E. M.; H. C. P.; H. W.; Mr. C. H. Harling, Whittlesea; Dr. A. Howell, Yorlan; Mr. J. Heaps, Hove; H. S. B.; Dr. H.; Dr. H. Humphrey, Torquay; Mr. D. Heron, Ballynahinch.
- J.**—Messrs. Jewsbury and Brown, Manchester; J. M.; J. M. L.; Messrs. W. and A. K. Johnston, Edinburgh; J. M. C.; J. C. K.;
- Jenner Institute for Calf Lymph, Lond.; J. B.
- K.**—Kumbakonam Municipal Hospital, India; Messrs. Kilner Bros., Lond.
- L.**—Miss Low, Lond.; L. Paisley; Mr. T. Longmore, Selly Oak; Lancashire County Asylum, Winwick, Treasurer of; Monsieur H. Le Soudier, Paris.
- M.**—Dr. J. McKerrrow, Wigan; Mr. D. J. Macdonald, Glasgow; Dr. Wm. Mackay, Wadhurst; Medical Graduates' College, &c., Lond.; Dr. Messum, Farnham; Mr. M. J. Meyer, Boscombe; Dr. H. J. May, Southampton; Messrs. Matthews Bros., Lond.; M. C.; Lieutenant-Colonel W. R. Murphy, Lond.; Mr. E. Merck, Lond.; Medicus, Liverpool; Dr. D. M. Macleod, Strontian; Dr. J. Marnock, Aberdeen; M.R.C.S., Swansea; M. C.
- N.**—Mr. G. Nisbet, Sheffield; Nord-drach-upon-Mendip Sanatorium, Blagdon, Resident Physician of; Messrs. Neyroud and Sons, Lond.
- O.**—Messrs. Oliver and Boyd, Edinburgh.
- P.**—Mr. C. R. Porter, Northaw; P. Llanfairfechan; P. P. Eastbourne; Mr. J. J. Phelan, Lond.; Messrs. Philip, Son, and Nephew, Liverpool; Mr. J. Pond, Norwich; Parish Council of Tingwall, Scotland; P. J. B.
- R.**—Mr. H. Rainbird, Saxilby; Mr. F. Riley, Sale; Rehman, Ltd., Lond.; Mr. J. A. Ray, Manchester; Mr. F. T. Rhodes, Catford.
- S.**—Dr. L. E. Stevenson, Temple Sowerby; St. Bartholomew's Hospital, Rochester, Clerk of; S. G. W. Street Court, King'sland, Medical Superintendent of; Mesdames Sykes, Josephine, and Co., Lond.; Sheffield Corporation, City Accountant of; Mr. A. Stenhouse, Glasgow; Mr. R. Scott, Lond.; Dr. E. Schlosser, Nice; Scarborough Urban District Council, Borough Accountant of.
- T.**—Mr. A. Thomson, Achahois; Taunton and Somerset Hospital, Secretary of; Mr. H. E. Symes Thompson, Lond.; Teignmouth Hospital, Secretary of.
- W.**—Mrs. Walters, Bournemouth; W. W. K. M.; W. F. C.; Dr. W.; Mr. R. M. Wright, Burwell; Mr. H. Williams, Gravesend; Messrs. H. Wilson and Son, Lond.; Mr. N. Walmisley, Lond.; W. S. R.
- Z.**—Z., Lond.

EVERY FRIDAY.

## THE LANCET.

PRICE SEVENPENCE.

### SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.	TO THE COLONIES AND ABROAD.
One Year ... .. £1 12 6	One Year ... .. £1 14 8
Six Months ... .. 0 16 3	Six Months ... .. 0 17 4
Three Months ... .. 0 8 2	Three Months ... .. 0 8 8

Subscriptions (which may commence at any time) are payable in advance.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance. Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris

### ADVERTISING.

Books and Publications ...	Seven Lines and under £0 5 0
Official and General Announcements ...	Ditto 0 5 0
Trade and Miscellaneous Advertisements ...	Ditto 0 4 6
	Every additional Line 0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application.

# The Harveian Oration.

Delivered before the Royal College of Physicians of London on  
St. Luke's Day, Oct. 18th, 1901,

By NORMAN MOORE, M.D. CANTAB.,  
F.R.C.P. LOND.,

ASSISTANT PHYSICIAN TO, AND LECTURER ON THE PRINCIPLES AND  
PRACTICE OF MEDICINE AT, ST. BARTHOLOMEW'S HOSPITAL.

MR. PRESIDENT, FELLOWS OF THE COLLEGE, AND GENTLEMEN HONOURING US BY YOUR PRESENCE TO-DAY.—It has long been the custom in the several ancient colleges of our universities to commemorate the founder and the benefactors on some particular day. The members of the colleges are assembled, the history of the foundation is related with due solemnity, and the names of the benefactors are mentioned with honour and gratitude. Dr. William Harvey, the illustrious man by whose injunction we are assembled to-day, was familiar with this custom, for it was enjoined by the founder of his college at Cambridge, Dr. John Caius, a physician who not only possessed learning but venerated it and had considered those ceremonies and decorations which are as appropriate to learned societies as the fine paper, well-formed type, and beautiful bindings in which great scholars and great readers such as Aldus, and Grolier, and Thuanus, and our own Bentley delighted to see good literature clothed. It was Caius who gave us the silver rod which our President carries at every meeting of this College. He desired that we should be ruled with the mildness and clemency which a silver sceptre typifies, while the four serpents which ornament the sceptre are to remind the President that wisdom is to govern his conduct. Dr. Caius when in London lived within the enclosure of St. Bartholomew's Hospital, and the first College feast was held there in 1556, exactly a 100 years before the delivery of the first Harveian Oration. There Dr. Caius died in 1573, a benefactor of the study of medicine, in which he was the first Englishman to write an original description of a disease,<sup>1</sup> to learning in general by the foundation of his college at Cambridge, to the poor of London by a gift to St. Bartholomew's Hospital, and to this College in several ways. In his annals of Caius College a resolution is recorded under the date Oct. 6th, 1531, urging the duty of gratitude and of the remembrance and record of benefactors. Thus it was early in life, at Caius, that Harvey learned the value of such acts of public gratitude as that which, on his institution, we keep to-day. Sir George Paget, a former fellow of Caius and of this College, Regius Professor of Physic in the University of Cambridge, and an example thereof of all that a physician should be, has shown that it was probably the teaching of anatomy instituted in his college by Caius which led Harvey to those studies in which his fame is immortal. There, too, he was imbued with the spirit of good fellowship in learning which was then prevalent in the University and has ever since pervaded its atmosphere. Caius had fostered this spirit in the college he founded which, robed in the architectural garb of the Renaissance, appropriately comes into view of a visitor to Cambridge immediately after the foundation of King Henry VI., refulgent with the last glorious days of mediæval learning.

The poets who knew Cambridge have told in verse what every man worthy of a liberal education has felt. Milton of Christ's, disposed as he was to resist the natural effect of religious art, was nevertheless profoundly affected by great architecture and has left the world the better by the impression which he received as an undergraduate from the chapel of King's:—

"But let my due feet never fail  
To walk the studious cloisters pale,  
And love the high embow'd roof,  
With antic pillars massy proof,  
And storied windows richly dight,  
Casting a dim religious light."

Wordsworth of St. John's, trying to study the depths

<sup>1</sup> A Boke or Counsell against the disease commonly called the Sweate or Sweatyng Sicknesse: made by Jhon Caius doctour in Philosophie. 1552.  
No. 4078.

of his own mind, found himself deeply affected by his surroundings:

"I could not print  
Ground where the grass had yielded to the steps  
Of generations of illustrious men  
Unmoved, I could not always lightly pass  
Through the same gateways, sleep where they had slept,  
Wake where they waked, range that enclosure old,  
That garden of great intellects—undisturbed."

Cowley of Trinity, a lesser poet than these, seems by the power with which he expressed another of the feelings of university life almost to justify Clarendon's remark that in his time he had in poesy "made a flight beyond all men."

"Ye fields of Cambridge, our dear Cambridge, say,  
Have ye not seen us walking every day?  
Was there a tree about which did not know  
The love betwixt us two?"

The introduction into the family of great minds, the permanent association with a venerable collegiate home and its usages, the ties of friendship—by all these Harvey had been influenced during his residence at Cambridge from 1593 to 1598. When he migrated to this College in the midst of a busy world, *Fumum et opes strepitumque Romæ*, yet no less devoted to one of the highest branches of learning, he was kindly received. Two physicians deserve commemoration for their early kindness to him; one was Dr. Ralph Wilkinson of Trinity College, Cambridge, in relation to whom he occupied at St. Bartholomew's the position which, Mr. President, I now have the honour with infinite advantage and satisfaction to myself to occupy towards you. The other was Dr. Lancelot Browne of Pembroke College, Cambridge, who had been one of the proctors in 1573, the year in which Edmund Spenser of that college took his degree. Perhaps Browne was one of the learned wits of whom the poet was thinking when he celebrated the Cam in the *Fairie Queen*:—

"My mother Cambridge, whom as with a crown  
He doth adorne and is adorned of it,  
With many a gentle muse and many a learned wit."

It was Dr. Browne's daughter Elizabeth whom Harvey married in 1604. His life in our College was one of continued friendship and learned conversation. He was welcomed in his youth, applauded in his discoveries, venerated in his age. When his life ended in 1657 his body was accompanied beyond the walls of the City by the President and the whole College on its way to its last resting-place at Hempstead in Essex. Our College was of about one-tenth its present size when Harvey was admitted, but it was nevertheless a society in which a great variety of learning was to be found and where a man could spend his days with advantage. His entrance into it was gradual, for those were the days, as Clarendon says, "when men were seen some time before they were known and well known before they were preferred." Harvey's relations with this College began in the first year of King James. At a meeting on April 21st, 1603, the Fellows had discussed whether they should go out to meet the King at his entry into London and salute him "*solemni oratione*." At the next meeting on May 4th, 1603, "Mr. Harvie, doctor of medicine in the University of Padua, attended and presented himself for examination and when examined answered to all questions sufficiently well." Nevertheless he was put off to another time, "*cum convenientia ad Prazin*," that is, with informal leave to practise in the interval. He appeared again on April 2nd, 1604. "Dr. Harvie was examined for the second time for the degree of candidate and his answering approved." At his first examination he was the sole candidate and only the President, Dr. Richard Forster, and three Fellows were present, a small attendance perhaps due to the plague then prevalent. At the second examination John Craige (the King's physician, newly come with His Majesty from Scotland), Thomas Hearne (an Oxonian, who like Harvey had graduated at Padua), Thomas Lodge (the poet), and Thomas Rawlins of Clare Hall, Cambridge, were also examined, and all approved but Lodge. On May 11th, 1604, Harvey was examined and approved for a third time and had for his companions Rawlins, Hearne, Edward Elwin of Corpus Christi College, Cambridge (afterwards physician to the King's household), and three poets, Matthew Gwin, Thomas Lodge, and Raphael Thorius. Of these poets Gwin was afterwards admitted a Fellow of the College. In our society, where, for the most part, we think,

"Nobis non licet esse tam disertis,  
Qui Musas collimus severiores."

it is remarkable that literature has never been neglected. In the translation of Plutarch's Lives, edited by Dryden,

10 Fellows of this College,<sup>2</sup> three of whom afterwards filled the office of President, took part; and to a greater biographical work of the present day, the greatest indeed which has appeared in our literature, you, Sir, have made a contribution, as well as our learned librarian, Dr. Payne, and some other Fellows of the College.

At the present day we have in Robert Bridges a master of verse which is both praised and read. Arbutnot, steeped in literature, gave a poetic form to thoughts which must constantly occupy the minds of physicians:

"Am I but what I seem, mere flesh and blood,  
A branching channel with a mazy flood?  
The purple stream that through my vessels glides  
Dull and unconscious flows like common juices,  
The pipes through which the circling juices stray?  
Are not that thinking I, no more than they?  
This frame, compacted with transcendent skill  
Of moving joints obedient to my will,  
Nursed from the fruitful glebe like yonder tree,  
Waxes and wastes: I call it mine not me."

Sir Samuel Garth was a popular poet for 50 years and to this day one couplet in his "Dispensary"—

"To die is landing on some distant shore  
Where tempests never beat nor billows roar"—

is known to everyone because it was admired by Cowper and is quoted by him in one of the most affecting poems in our language.<sup>3</sup> Harvey himself is one of the heroes of "The Dispensary":

"They hasten now to that delightful Plain  
Where the glad Manes of the Bless'd remain:  
Where Harvey gathers simples, to bestow  
Immortal youth on Heroes' shades below.  
Soon as the bright Hygeia was in view,  
The Venerable sage her Presence knew.  
Thus he:  
'Hail, blooming Goddess, thou propitious power,  
Whose blessings mortals more than life implore.  
With so much lustre your bright looks endear,  
That cottages are courts where those appear.  
Mankind as you vouchsafe to smile or frown  
Finds ease in chains, or anguish in a crown.'"<sup>4</sup>

The poets who began the march to fame with Harvey and whose poetic fancies were afterwards so far surpassed in repute by his precise facts deserve to be mentioned if only because they were associated with him on an important day of his life.

Matthew Gwin was the first professor of physic at Gresham College where he lectured from 1598 to 1607. He was an accomplished Latinist and took part in a medical disputation at Oxford for the entertainment of King James I. and his Queen Anne. He had to argue on the question whether the morals of nurses were imbibed by infants with the milk. It was a delicate point, for the King had had a drunken nurse and was always anxious that he should not be thought to have imbibed her evil nature. The King drank a good deal, yet his most steadfast brain, says Sir Theodore Mayerne,<sup>5</sup> was never disturbed by sea or by wine. Gwin published a Latin comedy, called *Vertumnus*, which was acted at Magdalen College, Oxford, and a Latin tragedy, *Nero*, based upon Tacitus, Suetonius, Dion Cassius, and Seneca. The epilogue of the comedy, where three sibyls hail King James by the several titles of his increasing dominions, is sometimes thought to have suggested to Shakespeare the famous salutations of the witches in *Macbeth*. The tragedy displays the reading of its author, but perhaps Dr. Gwin's last lines about Nero the Emperor may be applied to *Nero* the tragedy:

"Restatque de Nerone tam magno nihil  
Nisi quod sepulchrum condant aut ignis cremet."

Gwin had disputed before King James with Sir William Paddy, a benefactor here and at St. John's College, Oxford, as to whether smoking tobacco was conducive to health. Raphael Thorius, the Licentiate who attended to be examined with Gwin and Harvey, treated the same subject in a poem of two books, and in spite of the Royal opinion against

tobacco did not veil his own love for the fragrant weed, and he begins his "Hymnus Tabaci":

"Innocuos calices et amicum vatibus herbam  
Vimque datum folio, et lati miracula fumi  
Aggredior"—

and goes on to dedicate it to Sir William Paddy than whom, says Thorius, no one knew better the varied powers of the disease-repelling plant. Thorius wrote many lesser poems now chiefly interesting as showing his tastes and friendships. Three which have never been printed are addressed to L'Obel, the botanist, who was in practice in England as an apothecary, but who is known to few of the many who have the lobelia growing in their gardens. In 1625 Thorius sent his wife and family out of London to preserve them from the plague and, diligently attending to his patients, became infected and died.

Thomas Lodge, the third of the poets examined on the same day as Harvey, was a schoolfellow of Sir William Paddy, our President of 1609. He began life as a poet and ended it in the practice of medicine after a varied career, part of which was spent, as he says, "as a soldier and a scholler," and another part as a sea rover, hardly to be distinguished from a pirate. His story of "Rosalynde," written at sea "rough as hatcht in the stormes of the ocean and feathered in the surges of many perillous seas,"<sup>6</sup> and published in 1590, will always be memorable in literature for some fine lyric verses and still more as the source of the plot of Shakespeare's *As You Like It*. Lodge was often unfortunate in letters and in adventure and was so in his entrance to this College, for he did not receive a licence till 1609. He more often expresses gloom than cheerfulness in his verses and the feelings exhibited in a stanza of his "Margarite of America," written amid "bitter and extreme frosts at midsummer" in the Straits of Magellan, seem to have been often his:—

"From height of throne to abject wretchednesse,  
From wondrous skill to servile ignorance,  
From court to cart, from rich to rechelesnesse;  
The joys of life have no continuance.  
The King, the cattife wretch, the lay, the learned,  
Their crowns, woes, wants, and wits with griefe have earned."

On August 7th, 1604, at the house of Dr. Forster the President, Harvey and Elwin were again examined and Lodge was rejected. On Oct. 5th, 1604, the two former were sworn as candidates.

Of those who had been examined with him and approved Harvey was the last to be elected a Fellow. At that period the influence of great persons was sometimes brought to bear upon the College in the election of Fellows: Dr. Rawlins had a letter from the Archbishop of Canterbury; Dr. Gwin was recommended by Ellesmere, the Lord Chancellor, and by Thomas, Earl of Dorset, Lord Treasurer and Chancellor of the University of Oxford; and Dr. Elwin by the Earl of Suffolk, the Earl of Northampton, and the Earl of Salisbury, and by Lord Stanhope, and they were elected Fellows on Dec. 22nd, 1605, and Harvey not till May 16th, 1607. It is just to state that they were all older men. He took the oath and was admitted on June 5th, 1607, with two others, Dr. Matthew Lister, an Oxonian, and Dr. William Clement of Trinity Hall. Lister was afterwards knighted and became physician to the Queen of James I. and to King Charles I. as well as to Mary, Countess of Pembroke, in whose house he spent much time. He must often have talked to Ben Jonson, another frequenter of her house, and was, perhaps, one of the first to read and admire the epitaph written for the stately tomb which she deserved but which was never erected in Salisbury Cathedral, her place of burial:—

"Underneath this sable hearse  
Lies the subject of all verse—  
Sidney's sister, Pembroke's mother.  
Death! ere thou hast slain another  
Learn'd and fair and good as she,  
Time shall throw a dart at thee."

Clement, who like Harvey was a doctor of Padua, afterwards became Registrar of our College. Both he and Lister were industrious physicians, but all that has survived of their writings are four Latin verses by Lister and two by Clement, all in honour of the only medical book of Ralph Winterton, Regius Professor of Physic at Cambridge—a work which has perhaps received more praise from the learned than any other book written by a professor of medicine in that University. It is an edition of the "Aphorisms" of Hippocrates with a translation into Greek

<sup>2</sup> Dr. John Bateman (President, 1716-18)—Aratus; Dr. Edward Browne (President, 1704-7)—Themistocles and Sertorius; Dr. Walter Charleton (President, 1689-91)—Marcellus; Dr. William Crowne—Pyrrhus; Dr. Phineas Fowke—Phocion; Dr. Charles Frazer—Marcus Antonius; Dr. Thomas Fuller—Cicero; Sir Samuel Garth—Otho; Dr. Walter Needham—Agessilaus; and Dr. Thomas Short—Philopemen.

Cowper—"On the Receipt of my Mother's Picture out of Norfolk":

"So thou with sails how swift hast reached the shore  
'Where tempests never beat nor billows roar.'"

<sup>4</sup> The Dispensary: Canto vi., l., p. 298.  
<sup>5</sup> MS., Sloane, 1679 (British Museum), fol. 42.

<sup>6</sup> Rosalynde, Euphues golden legacie, London, 1590, p. 4 (reprint).

verse by Winterton, with also a Latin prose version and a translation into Latin verse. It was lauded in Latin or Greek verse by 17 Fellows of this College and two who subsequently became Fellows, one of whom was the celebrated Francis Glisson; by members of all the colleges at Cambridge but one and of several of the colleges of Oxford; while two university professors and the heads of Peterhouse, Queen's, Christ's, and Trinity commended it in Latin prose. What Johnson says of Pembroke College, Oxford, in his own time—"Sir, we are a nest of singing birds"—might have been declared of the College of Physicians in the reign of King Charles I.

Dr. Henry Atkins, the President, and afterwards a benefactor, of the College, was in the chair at the College meeting at which Harvey with Lister and Clement were admitted to the Fellowship. He was physician to James I. and is said to have been the first person to whom in 1611 that monarch offered the new rank of baronet. The first edition of our Pharmacopœia was published in 1618 under his auspices. Fourteen other Fellows were present, 10 of Harvey's University and four Oxonians,<sup>7</sup> while three of the 14 were doctors of Padua.<sup>8</sup> The business transacted after the new Fellows took their seats at the table is recorded in the "Annals." Dr. Mark Ridley was elected a censor in the room of Dr. William Dun, deceased. It was resolved that Dr. Edward Elwin should entertain the Fellows at a feast on the first Tuesday in the following July. Dr. Lister was to make preparations for the demonstrations in anatomy. Everyone was to try to learn where a certain Dr. Bonham had practised. Dr. Thomas Davis was elected Lumleian lecturer in succession to Dr. William Dun. Harvey, it will be remembered, succeeded Davis in this lectureship in 1615.

It would be pleasant to trace Harvey's relations with these and with the Fellows of subsequent elections throughout his time,

"But at my back I always hear  
Time's wingèd chariot hurrying near."<sup>9</sup>

One of those present at his admission was Dr. John Argent of Peterhouse who became *amicus suus singularis* and to whom with the College, of which Argent was then President, he dedicated in 1628 his "*Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus*." The dedication shows how happy was his association with his contemporaries:

Since my book alone doth assert the blood to move and circulate by a new route quite different from that held, taught and explained through so many ages by countless and most illustrious and learned men I feared that I might be thought presumptuous if I should allow my little book which had been completed some years back to be published or sent over sea unless first I had stated it to you and had confirmed it by anatomical demonstration and had made answer to your doubts and objections and had received the judicial commendation of our illustrious President.

How plain are the friendly relations between Harvey and the other Fellows. Argent was his senior, as were those friends whom I have before mentioned, Wilkinson and Launcelot Browne, but he had also warm attachments among his juniors and none greater than those which bound him to George Ent and to Charles Scarborough. Ent was not three years old when Harvey was admitted a Fellow. They probably met for the first time in Rome in 1636. Ent had gone thither after five years' study at Padua which had succeeded his graduation at Sidney-Sussex College, Cambridge. They were both guests at dinner at the English College in Rome on Oct. 5th, 1636. Lovers of truth and members of the same university caring for the same branches of learning easily become friends, however different their ages, and the natural admiration which youth feels for old experience cements the friendship of generous minds. Of this there are fewer pictures more happy than Ent's account of Harvey in the dedication of the "*De Generatione Animalium*" to the President and Fellows of the College of Physicians in 1651. His preservation of this interesting treatise which might have been lost with other manuscripts of Harvey but for him, puts us under a debt of gratitude to Ent, who was President from 1670 to 1675 and Censor for 22 years, and he was also one of our pecuniary benefactors. Charles II. attended one of his anatomy

lectures and knighted him afterwards in the College. Thus it is in every way appropriate that his arms, sable between three hawk-bells a chevron or, should form part of the ornament of the Censor's room, to which they were brought from the old College in Warwick-lane.

Charles Scarborough, knighted by Charles II. in 1669, was younger than Ent. He obtained a Fellowship at Caius College and, ejected from his Fellowship as a Royalist, entered at Merton College, Oxford, when Harvey was Warden, and ever after enjoyed his friendship. Thus what seemed a misfortune, as is so often the case, proved his greatest advantage, and he might have said more truly than Dryden—

"Oxford to him a dearer name shall be  
Than his own mother university."

But this is no reason why a recent learned writer in his "*History of the Study of Mathematics at Cambridge*" should speak of him as "a teacher of the mathematics at Cambridge of whom I know nothing more." He was learned in mathematics; he had a fine mathematical library; and he translated Euclid. He was one of the famous men of his day and everyone who has read Johnson's "*Lives of the Poets*" will remember how Waller when he found his legs grow tumid "went to Windsor where Sir Charles Scarborough then attended the King, and requested him, as both a friend and a physician, to tell him what that swelling meant. 'Sir,' answered Scarborough, 'your blood will run no longer.' Waller repeated some lines of Virgil and went home to die." Scarborough was physician to three kings in succession, but will always be best remembered as the friend of Harvey and his successor at Harvey's request in the Lumleian lectureship. Harvey left Ent £5 to buy a memorial ring, and of Scarborough in his will says: "I give my velvet gown to my loving friend Dr. Scarborough and to Dr. Scarborough all my little silver instruments of surgery."

These examples show Harvey's feelings towards the men with whom he spent his life. He had known something of what is called "the great world." King Charles I. seems to have liked Harvey, who probably saw him in his best aspect and in intellectual relations which brought out his mental abilities and did not lead to the exhibition of those defects of character and of manner which, more than the turbulence of his subjects or the ambition of their leader, brought him to his tragic end. All Harvey's writings show him to have been simple and truthful, so that we may believe that what he had seen of the King had bred in him the admiration expressed in the dedication of his great book, where he compares the heart of animals, the sun of their microcosm, to the King in the State, the sun of his microcosm.

Harvey went to Italy in 1636 with Thomas Howard, Earl of Arundel. That nobleman's figure and manner are known to subsequent generations by his portrait in armour by Rubens and his description in Clarendon's History: "It cannot be denied," says the statesman, "that he had in his person, in his aspect and countenance the appearance of a great man which he preserved in his gait and motion. He wore and affected a habit very different from that of the time such as men had only beheld in the pictures of the most considerable men, all which drew the eyes of most and the reverence of many towards him as the image and representative of the primitive nobility and native gravity of the nobles when they had been most venerable." Even if he knew only a little about the vast collection of marbles, paintings, and manuscripts which he made abroad his table must have been one at which the conversation was worth attention. But it was in his own profession and in this College that Harvey found his most congenial society. Here were his happiest associations and the endowment of the oration was a sort of memorial of his life in the College.

How many men have generously tried, without vanity and in pure goodness of heart, to preserve for future generations some reminiscence precious to them of something in their own lives. What more striking example of this motive of benefaction could there be than the history of two Fellows of our College—Sir John Finch and Sir Thomas Baines. Finch, son of Sir Heneage Finch, Speaker of the House of Commons, graduated at Oxford in 1647. Two years later he went to reside in Christ's College, Cambridge, where he was introduced by Henry More, the Platonist, then tutor, to Thomas Baines of that college. They became friends at once and, the times making life in England uncomfortable for loyal men, both went to Padua, and there graduated M.D. On the King's restoration they came to England, and on Feb. 26th, 1661, were both elected Fellows of this College, a circumstance which it is proper to mention to-day, since our "*Annals*"

<sup>7</sup> Oxonians: Dr. Henry Atkins. Dr. Richard Foster (All Souls), Dr. Edward Jorjan, Dr. Thomas Hearne (Brasenose), and Dr. Matthew Gwin (St. John's). Cantabrigians: Dr. William Baronsdale (St. John's), Dr. Thomas Friar (Trinity), Dr. George Turner (St. John's), Dr. Ralph Wilkinson (Trinity), Dr. Thomas Moundeford, Dr. Mark Ridley (Clare), Dr. Edward Lister (King's), Dr. John Argent (Peterhouse), Dr. Daniel Selin (Magdalene), and Dr. Thomas Rawlins (Clare).

<sup>8</sup> Friar, Jorjan, and Hearne.

<sup>9</sup> Andrew Marvel.

declare that the election, which was not to be drawn into a precedent, was on account of all the benefits conferred on the College by the illustrious Dr. Harvey, "*nobis nunquam sine honore nominandi*," and by his brother Eliab. Finch's brother, the first Earl of Nottingham, a prominent and incorruptible statesman of Charles II.'s reign, had married Harvey's niece Elizabeth, the daughter of his brother Daniel, and it is a pleasant example of the honour in which Harvey was held after his death that this connexion was the ground of the election. I have seen a letter which shows that Harvey was respectfully remembered at Burley-on-the-Hill. It was written in 1719 and is dated "December 28th, the day on which poor Queen Mary died," and is from his wife to Daniel, second Earl of Nottingham. She is anxious about his health and advises him to copy from "your father's receipt book where among some directions of Dr. Harvey's I think there's one how the bone of a stag's heart is to be taken." Her ladyship adds that it may be unnecessary to take so serious a remedy but that none the less it will be well for her lord to have it by him. Finch cared for no honour which could not be equally conferred upon Baines, and when the King knighted him for services to the royal cause performed in Tuscany his request that his friend might be knighted too was granted. In almost every letter home Finch mentions Baines and, what is not always the case in such friendships, the family of Sir John Finch seem to have shared his attachment, as well as his respect for Baines as a physician. "Most dear nephew," says the Ambassador, writing from Pera, August 21st, 1680, "Sir Thomas Baines will write about the indisposition of your daughter" and the nephew (Lord Nottingham) writes to a friend, "The loss of Sir Thomas Baines was very great to me for I am sure he loved me." They were soon after incorporated doctors of medicine at Cambridge at the same congregation. In 1665 Finch was sent as Minister to the Grand Duke of Tuscany and in 1672 he succeeded Sir Daniel Harvey, Harvey's nephew, as Ambassador to the Sultan. Baines went to each court as physician to the embassy, and it was known, as is told in the Life of Sir Dudley North, that if you wanted to obtain any privilege at the embassy you must convince both Finch the Ambassador and Baines, whom the merchants called "the Chevalier." Baines died in September, 1682, and Finch resigned his office and returned home with the body. "I need not tell you," says his nephew in a letter which I have seen, "how deplorable a condition my poor uncle was in to lose so good a friend after 36 years' acquaintance. A few months later he died, not so much from fever and pleurisy as from the loss of Sir Thomas Baines. They founded two fellowships and two scholarships in remembrance of their own life-long friendship and in the hope that other such friendships might in after times be formed. They were both of dark complexion and grave aspect, as may be seen in two singularly fine portraits by Carlo Dolci in the drawing-room of Burley-on-the-Hill. They are buried under one marble canopy in the chapel of Christ's:—

"Whom joined in fame in friendship try'd  
No chance could sever nor the grave divide." 10

It was a similar feeling arising from the recollection of past happiness which led Harvey, who had often sat at table with the Fellows of this College and had enjoyed their conversation and lectured here for nearly 40 years, to establish the ceremony in which we take part to-day to commemorate benefactors, to promote kindly feeling, and to remind physicians that it is one of their duties to wrest secrets from nature for the improvement of medicine and the consequent benefit of mankind.

The oration used, as he had desired, to be in Latin, then the language of learning, of diplomacy, and of the literature which every educated man made his own—the Latin not only of the classics but of Augustine and Jerome, of Justinian, of Anselm, of Erasmus, of Scaliger, and of Grotius. The sympathy of our College with the revival of classical learning naturally led our orators to use the Latin of the Augustan age, not that living language, as it might justly be called, of the Church and the Law, so often condemned by scholars but deserving of our respect as men when we consider how many great minds have thought in it and how closely it is often associated with the very highest aspirations of mankind. It was, of course, the custom of Fellows of this College to address the learned in

their works and to write in Latin. Few medical books of the highest order were written in English by the Fellows of our College before "The Morbid Anatomy of Some of the Most Important Parts of the Human Body" of Dr. Matthew Baillie, afterwards a generous benefactor, which appeared in 1793, and the last great book in Latin was the "*Commentarii de Morborum Historia et Curatione*" of Dr. William Heberden, which was published in 1802, 12 months after his death in his ninety-first year. Let no one be led by a veneration for Latin literature to regret that our own language has since 1864 been substituted for Latin at this celebration. When Harvey gave his first lectures English literature was already rich, for the works of Shakespeare were complete and Chaucer, Spenser, and Marlowe and Beaumont and in prose the Chronicles, and the English writings of More, Fisher, Latimer, and Hooker, some fine versions of classical authors, and the first collection of Bacon's Essays, and many other good books were easily to be obtained, yet men had hardly come to understand with Ben Jonson how far the literature of the ancients had been surpassed.

"I will not seek  
For names; but call forth thund'ring Eschylus,  
Euripides, and Sophocles to us,  
Paccuvius, Accius, him of Cordova dead,  
To live again, to hear thy buskin tread,  
And shake a stage: or when thy socks were on,  
Leave thee alone for the comparison  
Of all that insolent Greece or haughty Rome  
Sent forth, or since did from their ashes come.  
Triumph, my Britain, thou hast one to show  
To whom all scenes of Europe homage owe.  
He was not of an age, but for all time,  
And all the Muses still were in their prime,  
When like Apollo he came forth to warn  
Our ears, or like a Mercury to charm."<sup>11</sup>

Since Harvey's day our literature, great as it was even then, has received such excellent and varied additions that it must always live among the noblest literatures of the world. How far do the speeches of Burke, greatest of political philosophers, surpass those of Cicero and of Demosthenes in depth of thought and in grandeur of expression; with splendid sentences, yet owing their force not to ornament but to the perfection with which they make clear the lofty argument and profound consideration of the subject. The verses of Dryden and of Milton, of Cowper and of Byron have shown what force metre may give to English, while the prose of Clarendon and Dryden, of Swift and Addison, of Bentley, of Johnson, of Fielding, of Goldsmith, of Blackstone, of Macaulay, and of Newman exhibit the extraordinary variety of excellence possible in the language. Is not Herrick superior to Catullus? and what ancient comedy approaches *She Stoops to Conquer* in the happy combination of the comedy of words with the comedy of action? Will not the letters of Cowper and of Swift and of Gilbert White bear comparison with those of Cicero and of Pliny? What is there in Latin literature which can be compared with the novels of Fielding or of Thackeray? Who would prefer Petronius Arbiter, or even—considering the Latin of later times and to mention one of the few romances which Harvey is likely to have read—who would be well advised to take up the "*Argenis*" of Barclay when he had within reach the "*Vicar of Wakefield*," the "*Pickwick Papers*," or the happy delineations of English everyday life of Jane Austen? Great as must always continue our admiration for classical Latin, willingly as we must reverence its dignity, its precision, its grace, deeply as we must feel that we have no authors who are the equals of Virgil and of Horace and of Lucretius in their several kinds, let us never regret its disuse on this day since we have substituted for it the language of our own far greater literature.

Harvey, following the good old custom which he had observed at Cambridge in accordance with the injunctions of Caius, desired us to commemorate our benefactors by name. We are not a rich society, but we have had many benefactors. Some good men have given us land and money, others have given us books, some pictures or busts, while others, again—and these are perhaps the greatest benefactors of all—have added to our corporate glory by the fame of their discoveries or of their learning. All these are our benefactors. We are grateful for a charter to the Sovereign who then styled himself "Henry, King of England and France, and Lord of Ireland." He favoured us in his best days and when in the tenth year of his reign he established our

<sup>10</sup> Tickell: To the Right Honourable the Earl of Warwick on the Death of Mr. Addison, Dodsley's Poems, I., 29.

<sup>11</sup> Ben Jonson: To the Memory of my Beloved Master, William Shakespeare, and what he hath left us.

corporate existence he deserved the commendations of More, who says in a letter to Bishop Fisher, "He is so affable and courteous to all men that each one thinks himself his favourite." Some of those to whom gratitude is due I have already mentioned, and as I cannot pretend to so terse a style as Thomas Newton of Cheshire,<sup>12</sup> who praises 215 botanists in 54 lines of Latin verse, I cannot hope to mention all our benefactors as they deserve.

Thomas Linacre, our founder, has impressed upon succeeding generations of physicians in England his own high ideal of what a physician's character and learning should be. His house in Knightrider-street was the first home of our College. He seems to join the ancient and the modern world, for he could remember the printing of the first book in England and learned Greek from Demetrius Chalcondylas, a Greek of Byzantium who read Homer as we should read Chaucer, conscious that the poems were in our own tongue whatever differences there might be of vocabulary or of phrase. Our library contains the noble Milan edition of 1499 of the Greek Lexicon of Suidas which was prepared by Linacre's teacher. It has no title-page, like many of the early printed books, but begins with a dialogue in Greek between the bookseller and a learned man which ends with an inquiry as to the price. "*χρυσῶν τριῶν*"—three gold pieces—says Bibliopoles. "Take them and give me the book," replies Philomathes. It is easy to imagine with what pleasure our founder must have contemplated such a book. The type is perhaps a reproduction of the Greek hand of Demetrius. Well-formed it is and impressed upon fine paper, yet as the text extends line after line over the pages with no interval or break, except the *τέλος τοῦ στοιχείου* and *ἀρχὴ τοῦ στοιχείου* of each letter, it brings home to a modern reader how much more perfect is the apparatus of learning in our day. We are sometimes told that so much is known now that there is no longer time to read books through and that men cannot seek knowledge in more than one direction. A comparison of this Suidas with a modern lexicon would rather suggest that where the means of acquiring it have become so much easier there must be time to learn more than in the days of our founder.

Sir William Paddy, who was well known to Harvey, was a benefactor of St. John's College, Oxford, as well as of this College, where he was President in 1609, 1610, 1611, and 1618. He is addressed by Thorius in words equally applicable to our present president:—

"Tu qui censu decoratus Equestri  
Virtutem titulis, titulos virtutibus ornas."

He was physician to Laud. "Few excellent men," says Clarendon of the Archbishop, "have ever had fewer friends to their persons." but Paddy was one of the few and a very faithful one. He left his library to St. John's, a fine collection of the scientific books of his time. Chancing to visit that library I asked if there was a separate list of his books and whether they could be pointed out in the cases. Receiving a negative reply to both questions, I asked for Gilbert de Magnete, thinking that Paddy would be sure to have a copy of that great work, of which the author, one of our benefactors, was President here in 1600 when Paddy was Censor. A fine copy was produced and on the first leaf was written "Liber Gulielmi Paddy." This clue made it easy to find several others of his books, Turner's New Herbal of 1551, Gerard's Herbal of 1597, Rondeletius and Guido, Fallopius and Laurentius, and that rare work of our Fellow, Edward Wotton, "De Differentibus Animalium," dedicated to Edward VI. and published in 1552, one of the first printed books on zoology by an Englishman. These required seeking on the shelves, but one book which belonged to Paddy is well known to every visitor to the library for it is displayed in a table case. It is a Royal copy of the 1615 edition of the Book of Common Prayer and contains in Paddy's hand an account of the last hours of King James I. As our late librarian, Dr. Munk, to whose Roll the fame of the College in the world of letters owes a good deal and who wrote a paper on the death of the King, was unacquainted with Paddy's record, it is, perhaps, known to few Fellows of the College, and deserves to be read here as a memorial of our former President and benefactor.

"Being sent for to Thibautte but two daies before the death of my covraigne Lord and master King James, I held it my Christian dutie to prepare him telling him that ther was nothing left for me to doe (in the afternoon before his death the next daie at noone) butt to pray for his soule. Whereupon the archbishop and the Lord Keeper, Bishop of Lincolne demanded iff his majestie would be pleased that they shoulde praye with hym. Whereunto he cheerfullie accorded and

after short praler these sentences were by the byshop of Lincolne distinctlie pronounced unto hym who with his eyes the gates of his hart lifted up unto heaven att the end of every sentence gave to us all thereby, a godly assurance of those Graces and livelie faith whereunto he apprehended the Merit of our Lord and onlie Saviour Christ Jesus accordinglie as in his godlie life he had often publiclie professed."

"WILL PADDY."

The 41 sentences which Bishop Williams recited to the King are written down, ending with the last verse of the Te Deum:

"In te Domine speravi non confundar in æternum."

Sir William Paddy died in 1634. In that year another benefactor was President and continued so for seven years—Simeon Fox, educated at Eton and at King's College, Cambridge. He was present in the Great Hall at Padua on Thursday, April 25th, 1602, when Harvey took his degree, and he saw him receive the insignia and ornaments of the doctorate, when the books were given to him first shut and then open, a golden ring placed upon his finger, the doctoral cap put upon his head, and finally the kiss of peace given to him with the blessing of authority. The name of Simeon Fox and those of Anthony Fortescue, Richard Willeby, Matthew Lister, Peter Munsel, and Robert Darcey, Englishmen, are recorded with others in the finely decorated diploma as witnesses to the ceremony. The only extant work of Fox is a Latin poem of 29 lines addressed to Winterton. He lived in the house which formed part of the College in Amen Corner and is buried in St. Paul's Cathedral. The bust erected in his honour in the College was unfortunately calcined in the Great Fire of London.

It would be easy if we had but time to-day to find something interesting to tell of each one of our benefactors. I should like to commemorate Assuerus Regemoster, Glisson's fellow-worker, by taking the College to the famous private school in Goldsmith's Rents, off Red Cross-street, where he was educated by Thomas Farnaby, that industrious editor of Juvenal, and Seneca, and Martial Lucan, Ovid, Terence, and Virgil, who had sailed with Sir Francis Drake, and whose learning was respected by Ben Jonson.

How delightful to accompany Dr. Edward Browne, son of Sir Thomas Browne and our President in 1704, in his travels to Larissa, where he hoped to breathe the atmosphere in which Hippocrates had practised and to know a little more of the Father of Medicine by contemplating the features of the country in which he had verified or established those aphorisms of medicine, the first of which is to this day placed before each individual Fellow at every meeting of our College. We might hear Alexander Rhead lecturing to the surgeons and barbers in Monkwell-street at their hall—good artists, as they called themselves, sound practitioners as we should say, differing from their professional descendants of to-day in the fact that instead of thinking, as I find most of my surgical colleagues do, that nearly all diseases, whether internal or external, are curable by the knife, they were inclined to administer medicines with which they were imperfectly acquainted and which the law forbade them to use.

If we cannot forget the words of Hippocrates and the sceptre of Dr. Caius which are exhibited to us at every meeting, surely we must also remember Dr. John Lawson of Queen's College, Cambridge, our President in 1694, who gave us the handsome mace which is borne before the President.

We are quaintly reminded on the *postridie palmarum* of the devotion to our College of Dr. Baldwin Hamey, one of our largest benefactors, when we each receive from his estate half-a-crown. No one has ever surpassed him in his love for the College and admiration of Harvey whom he knew in the College for more than 20 years. In 1625 he went to Hastings on his way to Holland. He had supper with the mayor who dreamed afterwards that Hamey should be detained, and set a guard at his inn. He was thus unable to join the vessel when she sailed; a sudden storm within an hour caused the ship to founder with all on board, and thus the mayor's suspicions, which, perhaps, arose from the learned character of Hamey's talk at his table, saved his life. He was a loyal man and gave the King a valuable ring at the Restoration which he had bought at the sale of King Charles I.'s effects, and in justification of his occasional attendance at the sermons of the Commonwealth men it is mentioned that he used to read an Aldine Virgil bound in vellum or a little Aristophanes bound in red all the time.

Charles Goodall, President from 1708 to 1712, was another man devoted to the College and a zealous defender of its privileges. We who have known the labours and the fidelity of Sir Henry Pitman and Dr. Edward Liveing in the College of our time can have no difficulty in the grateful remembrance of a similar man in the past. He was a friend of

<sup>12</sup> Henry Lyte, a New Herbal London, 1619.

Sydenham who admired both his character and his skill and dedicated his "Schedula Monitoria" to him.

Sir Hans Sloane, our President from 1719 to 1735, was thought worthy to succeed Sir Isaac Newton in 1727 as President of the Royal Society. The μεγαλοπρέπεια of Aristotle, the generous splendour suitable to a great man, was displayed by him through a long life, and the institution of the British Museum was due to the discerning liberality with which he disposed of his vast and valuable collections at his death. Hans-place and Sloane-street appropriately preserve his memory on the estate which he had purchased and where he lived during 13 years of an intelligent old age.

Two recent benefactors must not be omitted. Sir Hermann Weber who founded in 1895 a handsome prize in memory of Dr. E. A. Parkes, and Captain Edward Wilmot Williams who founded a gold medal in memory of Dr. Francis Bisset Hawkins, his kinsman, long the senior Fellow of this College.

We are assembled in our library and must not forget those who have enriched it. To men who regard the world of books as a region only second to the world of men in its interest ours is a delightful collection. It is in great part composed of the successive gifts of men who have loved their books, and represents the reading of 12 generations of well-read physicians. Linacre our founder, and Dr. Holsbosch, and Gilbert, the discover of the magnetism of the earth, and the Marquis of Dorchester, friend of Harvey and of Scarborough, and Sir Theodore Mayerne, physician to Henry IV. of France and to James I., Charles I., and Charles II., a man of extraordinary learning and ability: these were some of the earlier benefactors. After them comes Dr. Richard Hale, whose portrait justly occupies a prominent place here. He was of Trinity College, Oxford, and though an enlightened and well-informed physician of his own time took pleasure in mediæval treatises, enjoyed the *Flos medicinae* of the School of Salerno, and walked with pleasure in the garden in which that flower grows beside the *Rosa Anglica* and the *Rosa Gallica*, perhaps murmuring as he went:

"Cur moriatur homo cui salvia crescit in horto?  
Contra vim mortis: non est medicamen in hortis."

Later still comes Richard Brocklesby, a schoolfellow of Burke and his friend throughout life. He was a generous giver: to Burke, to Johnson, to his nephew Thomas Young, one of our Fellows, the exponent of hieroglyphics, the originator of the undulatory theory of light, to our library, and I am sure in many other directions no longer remembered.

"What I spent I had,  
What I kept I lost,  
What I gave I have,"

says the old epitaph. Brocklesby understood its meaning. Johnson himself gave us a book and we owe a debt of gratitude to one other of that great literary circle, for Sir Joshua Reynolds went to much trouble for us as to the cleaning of our pictures. In later days Sir Andrew Clark gave a handsome bookcase filled with books, and Dr. Pye-Smith a fine solid case for the display of some of the treasures of our library. Our present librarian, Dr. Payne, has given several rarities from his own fine library to ours.

There have been endowed in the College at different times five lectureships. The oldest was founded in 1581 by Dr. Richard Caldwell and John, Lord Lumley. Caldwell, an Oxonian, was President in 1570. Only one of his writings has survived, a translation of the *Tables of Surgery* of Horatius Morus of Florence, and his ornate tomb, described by Camden, perished with the church of St. Benet's, Paul's Wharf, in the Great Fire of London, so that the lectureship is the chief memorial of his learning and virtues. John, Lord Lumley, was not unworthy to be his associate. He was of Queen's College, Cambridge, and had a noble library, parts of which are preserved in the British Museum, in the Bodleian and in the Public Library at Cambridge; and he wrote a translation of the *Institution of a Christian Prince* of Erasmus. The conversation in Lumley Castle must have been interesting, for its lord besides his knowledge of books had taken a part in many affairs of State and his wife, daughter of the twelfth Earl of Arundel was as learned as her lord. She translated the *Iphigenia* of Euripides and some orations of Isocrates into English and one oration into Latin. The founder of our lectureship died in 1609 and was buried in the aisle which he added in 1592 to the church of St. Dunstan at Cheam.<sup>13</sup> The inscription traces on his tomb

his descent from the times of King Edward the Confessor, and in its marble ornament with 19 surrounding shields of arms showed how fully he, whose father was attainted and executed at Tyburn, had restored the ancient wealth and honours of his family.

The next lectureship is that founded in 1632 by Dr. Theodore Goulston, a Fellow of this College, who was educated at Merton College, Oxford. He was a person of much learning and translated into Latin with commentaries two books of Aristotle and several of the *Opuscula* of Galen. He lived in the same parish as Harvey, that of St. Martin-by-Ludgate, and as he was Censor in the year in which Harvey was appointed Lumleian lecturer, while they were Censors together in a later year, knew him well. The rector of their parish was Samuel Purchas, editor of "*Hackluytus Redivivus* or Purchas his Pilgrims," and it is easy to imagine that this Johnian who had been at Cambridge during Harvey's time there, was now and then admitted to the society of Goulston and Harvey and perhaps amused them with tales from the records of voyages of which he possessed the manuscripts. Goulston's "*Opuscula Varia*" of Galen was published by his friend Thomas Gataker in 1640, after the editor's death. Harvey possessed a handsomely bound copy, now in the British Museum, in which he has written many notes, especially on the *Exhortatio ad Medicinam et Artes*, the *De Sectis ad Tyrones*, the *De Cognoscendis et Corrigendis Animi Perturbationibus*, and the other two treatises on the mind.

A third lectureship was planned by Dr. William Croune, a Fellow of the College, in 1684, and was formally established by his widow in 1706. He had been a Fellow of Emmanuel College, Cambridge, and became professor of rhetoric at Gresham College and read several papers before the Royal Society, of which he was one of the earliest Fellows.

No further lectureship was founded till 1880 when the widow of Dr. William Wood Bradshaw, a Member of the College, founded an annual lecture in memory of her husband.

In 1886 Dr. Gavin Milroy, a Fellow of the College, founded a lectureship in State Medicine and Public Hygiene.

These five lectureships are devoted to clinical medicine, pathology, anatomy, physiology, and public health, but neither here nor in any of our universities are there public lectures on the history of medicine. The history of medicine may, perhaps, be divided into three parts. One belongs to the general study of philosophy, the exposition of the theories and the arguments to support them which have been used in past ages. This is chiefly of interest in relation to the study of the human mind. A second part treats of the lives and the work of physicians of past times. This cannot but instruct us who have the same difficulties and the same objects. The third is the study of the cases and epidemics of past times as they appear not only in medical writers but in general history. This is, perhaps, the most useful of all. In the mistaken interpretation of accurately recorded phenomena in old times we have before us a picture of our own errors in the interpretation of what we discover at the bedside and a warning against too great deference to prevalent systems of treatment. To learn anything from the history of medicine in any of these branches it is first necessary to know medicine, and the only valuable writers on the subject have been well-informed physicians like Dr. John Freind, whose history of physic is the most considerable work on the subject in our language, or Dr. Payne, whose devotion to pathology and to clinical medicine is as well known as his lucid exposition of the learning of past centuries. It is fortunate that the opportunity has occurred of establishing such lectures.

The wife of a very learned man desires to perpetuate his memory in a way grateful to him by the foundation in this College of a lectureship on the history of medicine. He was a Member of the College and she wishes that the benefaction shall be considered to come from him and be called after him as in the case of Dr. Croune, whose wishes as to a lectureship were carried out by his widow, Lady Sadleir. No occasion seems more appropriate than this to mention to the College this gift of a sum of £2000 to be invested in the usual way for this purpose on conditions similar to those of our ancient lectureships, which must, of course, be formally laid before our Comitia, and will, I do not doubt, be accepted there, since when I lately mentioned them by letter to the Comitia Minora I was informed that the President and Censors, though without formal authority in such a case, were prepared to recommend the College to accept the gift.

<sup>13</sup> Now detached from the church.

Dr. Thomas Fitz-Patrick, who must hereafter be mentioned as one of our benefactors, was born in 1832 at Virginia, a little country town standing at the end of a long lake in Cavan. Although one of the least wealthy parts of Ireland the surrounding district is one of literary fame. In the boyhood of our benefactor the epigrams and other poems of Philip MacBradaigh, and his touching lines on his daughter's affection, were known to everyone, as well as those of his kinsman Fiachra MacBradaigh, a country schoolmaster of ready wit who flourished in the reigns of George I. and George II. The itinerant fiddlers and pipers who had taken the place of the harpers of more remote times all knew the songs of Cathair MacCaba, who died in 1740 and was a harper as well as a poet and a friend of O'Carolan, the most famous of all Irish musical composers, who addressed to him a pleasant poem—"Rath do cheirde fein ort" (here is the reward of your own art). The ancient churchyard of Moybologue in which MacCaba is buried contains also the mortal remains of Brian O'Clery, a somewhat later poet of the same century, descended from a famous race of hereditary historians whose chronicles are one of the chief sources of information about mediæval Ireland. His poem on spring and others of his verses were often recited and his early death lamented. John O'Neachtan's poems on the death of Mary of Modena, Queen of James II., and on the Duke of Berwick, and many other compositions of his, circulated in this district. John O'Farrelly of Mullagh, a village about four miles from Fitz-Patrick's birthplace, where he first practised his profession, wrote the history of the district under the title of "Seanchas an da Bhreifhne." A romance by Brian O'Reilly, entitled "Eachtra Mheic na Mhiochomhairle" (the adventures of the son of evil counsel), was read or repeated by great turf fires in many farm-houses on winter nights, though such in Fitz-Patrick's youth was the poverty of the district that even rushlights were rare and a splinter of bog fir or twigs of dry furze thrown into the fire supplied the light by which all these writings were read from manuscripts. It is right to mention these authors and their works—obscure elsewhere but long well known in that part of Cavan—in order to show how much love of literature there was, and I agree with that great scholar, the late Mr. Henry Bradshaw, in respecting the ill-remunerated scribes who copied these works in manuscript and the authors who composed them without hope of other reward than local fame. Nor were the literary associations all in the native language, for Henry Brook, author of "The Fool of Quality," a novel once widely read, lived at Corfada, between Virginia and Mullagh, as did his accomplished daughter, Miss Charlotte Brook, whose "Reliques of Irish Poetry" is a handsome quarto to be seen in most good eighteenth-century libraries. Close to Virginia is Quilca, the home of Dr. Thomas Sheridan, the editor of "Perseus," where Swift was a frequent guest, and many stories of the famous Dean of St. Patrick's were current in the neighbourhood in Fitz-Patrick's youth and later. In the next field to the fragment of wall which is at the present day all that is left of the house of Henry Brook a small but ancient cairn near a disused well marks the birthplace of a learned person of very ancient times—St. Cillian of Würzburg, in the seventh century the apostle of Franconia. The varied literary associations of his native district had no doubt a great effect in giving Fitz-Patrick a taste for literature of all kinds. He graduated at Trinity College, Dublin, where he obtained several prizes, and became a Member of this College in 1868. He was a man imbued with learning, well read in Homer and in Lucretius, and knowing Spanish, Italian, and French, and German, as well as something of Hebrew, of modern Greek, and of Danish. His knowledge of English literature was extensive and his taste good. He had travelled as well as read and having thus accumulated all the materials for conversation he was a delightful companion. His intellectual attainments were the ornaments of solid virtues and he deserves to be remembered with honour in this honourable place.

I could mention many more worthy benefactors and, as in private duty bound, you, Sir, and the Fellows would sit on till I had ended their praises, but I must remember that we have guests who may exclaim with Macbeth :—

"What! will the line stretch out till the crack of doom?"

So, like an old charter, I will end my list with the words "cum multis aliis." We are grateful to them all and will always maintain their fame.

As to the last parts of Harvey's exhortation how can they

be better carried out than by considering the examples of the investigation of nature and the maintenance of friendship which the College itself affords. Harvey himself first of all, beloved in his time, untiring in his observations, considering them and stating their results in every aspect during all the years from 1616 to 1628, and ending in the certainty that the blood in the animal body is impelled in a circle and is in a state of ceaseless movement—that this is the action which the heart performs by means of its pulse and that this is the sole end of the contraction of the heart. Think how the pulse had been studied before, in the 13 books of Galen, by Rufus of Ephesus, by Philaretus, and by many more, yet never understood because an hypothesis resting on too small a basis of observation prevented men from seeking out the truth of nature by way of experiment. Then Francis Glisson labouring for five years and more at the observation of a disease undescribed before and ending with a perfect pathological and clinical treatise on Rickets, the first of its kind to appear in England. And Heberden, whose commentaries, though they contain no single great discovery, yet are so original in every line that they are a continued discovery of all that may be seen at the bedside. Sir George Baker, working out the causes and the results of lead-poisoning in the cider country and leaving no step unassured on the way. Sir William Jenner laboriously working at the bedside and in the post-mortem room and by the method which Harvey urged, "*αυτοψία non mentis agitatio*," demonstrating the true character of enteric fever and its distinction from the typhus fever with which it had so long been confounded.

Many of my predecessors have dwelt at length on the discoveries of Harvey himself. I should like to have done so, too, had I not felt bound to follow his own injunctions and to commemorate our benefactors, a task perhaps easier to perform, for it requires great talents to frame a composition worthy of his fame and to be so great a master of words as to utter praises equal to his merits who left us so great a discovery won by his own genius. The lines of Lucretius on Epicurus may justly be used to praise Harvey :—

"Quis potis est dignum pollente pectore carmen  
Condere pro rerum maiestate hisque refulis?  
Quis valet verbis tantum qui fingere laudes  
Pro meritis ejus possit qui talia nobis  
Pectore parva suo quesitaque præmia liquit."

## An Address

ON

## EXAMINATIONS AND THE EDUCATION OF THE SPECIAL SENSES.

*Delivered at the Queen's Hospital, Birmingham, on Oct. 18th,  
1901, on the First Distribution of Clinical Prizes  
since the University commenced its work,*

By THOMAS BRYANT, M.CH., F.R.C.S. ENG.  
AND IREL.,

SURGEON-IN-ORDINARY TO THE KING; CONSULTING SURGEON TO QUINT'S  
HOSPITAL; PAST PRESIDENT OF THE ROYAL COLLEGE OF  
SURGEONS OF ENGLAND, ETC.

MR. PRESIDENT AND GENTLEMEN,—You have but recently enjoyed the first Congregation of your ideal university and had the benefit of learning from your distinguished Principal the history of its birth. You have likewise had the benefit of hearing from your no less distinguished Chancellor and Father of the University the clear enunciation of the principles upon which the institution has been founded, with an eloquent expression from his parental lips of the brilliant career which it is anticipated the university will run in the coming ages.

As an interested worker and dweller in a city older than Birmingham, which is now seriously and strenuously occupied in working out the problem of turning a mere examining university into a teaching one for a population many times larger than your own, I have studied all your proceedings, and as the President of your Clinical Board has been so kind as to ask me to distribute the clinical prizes to the students at this hospital on this the first occasion since

Birmingham received a charter for its university I may be pardoned for making a few remarks upon your ideals and hopes of future developments.

First of all I must congratulate you upon having adopted in your modern institution the high ideals of the venerable universities of this country of which we all are so proud. It was a wise decision for you to have taken, for to build upon such a solid basis your foundations must be firm, and by so doing opposition will certainly be disarmed against your efforts "to strike out some new path of distinction which will be not unworthy of their companionship." For the founders of your University have clearly been alive to the fact that different stages of human progress call for changes in new as well as in old institutions, so as to adapt them to the requirements of the times in which they live.

To lay down in the first place the principle that in such an ideal institution as this "all existing knowledge is to be taught" was absolutely correct, in spite of the probability that in carrying it out great demands may be made upon your resources, although you have good reasons to anticipate a realisation of your ideal, based upon past experience and the unprecedented success which has attended the foundation of your University.

The second feature of your ideal university—"that it is a place where the knowledge which has been acquired has to be tested"—is as sound as the first, although in carrying out the principle much discretion with care is needed, for whilst all will admit that too many examinations encourage cramming and discourage individual effort, such examinations as are given should always be searching. Periodical class-testing by teachers may be wise and necessary in order to mark progress, but all examinations, and particularly oral examinations, for degrees and honours should be undertaken by outside professors of experience in the presence, and with the assistance, of the university teachers. As an examiner of some experience and as a visitor of examinations conducted upon methods widely differing I have no hesitation in expressing my conviction that whilst with every method of conducting examinations wrong decisions will occasionally be given, the chances of giving them are unquestionably far fewer by the method I am now advocating than they have been where the examinations have been entirely conducted by the teachers themselves. By any and every method of examination good or well-prepared men and badly-prepared men can be recognised with equal facility, whereas with the intermediate and largest class, which includes the indifferently-prepared student, the difficulty of decision is always great. With such a class it may be true, as I have heard it stated, that the greater popularity of the teaching examiner over the outside examiner is not open to a question, and as a visitor of examinations I can well understand why such a consensus of opinion should exist, for I could, if I deemed it prudent, afford you much food for thought and some amusement by recording incidents illustrative of such methods as might seem to explain the student's view. But, seriously, is it a true subject of congratulation for an indifferently-prepared student to have just scraped through his examination? and is such a success a true subject of congratulation from a university point of view? From both points of view I unhesitatingly answer that it is not, and in saying this I have from the university standpoint the support of your Chancellor when he stated: "I conceive that common prudence should teach us to keep up the value of the degrees which we have begun to confer to-day, and nothing would be more unwise, more fatal to our reputation and to our ultimate success, than that we should endeavour to multiply the number of our students at the expense of their quality." From a student's point of view the same conclusion has to be drawn—at any rate, from the point of view of the medical student—for is it not true that many an indifferently-prepared student has developed into a good one by some throw-back for six months upon extra study? And that which was at the time looked upon as a calamity not only gave an impulse to efforts that had been half-hearted or torpid, but had helped to develop a character of a higher order and had rendered a successful career in life more certain. For my own part, when, as an examiner, a student whom I knew to be a good one was rejected in a pass examination my sympathies were more with his parents than with the pupil himself, who, in spite of his throw-back with its disappointments, had been given one more chance of taking advantage of his opportunities of gaining knowledge and experience in medical matters in his medical school which he was not likely to have again, for experience has certainly proved to me that

from a student point of view a temporary rejection is not always a matter to be lamented, since by it many a feeble man has been made strong and powers have been developed in him which have proved to be of lasting value.

With respect to the third feature of your University I can give nothing less than my warmest congratulations; for to start the University and to maintain it "as a place where knowledge is to be increased and where the limits of learning are to be extended" is a noble ambition; and when this object is to be sought by uniting the students with their teachers in the work of fresh and new investigation your aims are almost those of perfection, and if eventually they are but imperfectly realised they must prove a success.

Lastly, we are told that your university is to be a place where the application of knowledge must be indicated and directed and that theory and practice are to be combined with due regard to the needs of your own time and of your own district, and that to carry out these wisely-conceived and well-considered objects you look with confidence to the help of your fellow-citizens. That you will not look in vain for this assistance is my firm belief and hope, and if you as the medical faculty of this enlightened University can but secure, in the words of your Chancellor, "the establishment of a great school of medical research which could carry forward and apply the discoveries of the last few years—discoveries which indicate to us, at any rate, the direction in which we are to seek for the weapons wherewith to combat suffering and misery and disease," you will, indeed, excite the envy of all rival institutions, for if theology is what it is said to be by the Bishop of Calcutta, "the queen of the sciences, because of the power of her facts as applied to human life and its needs," surely the profession you have adopted must claim to be the king, since it is the one art and science which is utilised for the special benefit of mankind and which culls from every branch of human industry and knowledge anything and everything which can possibly have a beneficial influence upon the prevention, relief, or cure of human suffering or disease. Under such circumstances, how wise it is that this faculty of medicine should be part and parcel of a university which is based upon the four leading principles upon which I have commented and where all knowledge is taught, tested, increased, and applied.

There is, however, one important branch of education which your teachers, however skilled, can do no more than encourage and which consequently must be left practically in your own hands. It can neither be imparted by lectures nor acquired by reading "through the spectacles of books," and yet it is without a doubt the chief accomplishment upon which your success in this university and later in the practice of your profession will unquestionably depend. I allude to your individual power of intelligent observation, through which your personal experience must be acquired, as secured by the education of your special senses of sight, hearing, and touch with your powers of reflection upon the facts which your senses have supplied you. I should add that if a student cannot be taught this he can be educated to acquire it by those responsible for his education.

How the senses are to be educated is a personal matter; if they have been partially trained or disciplined in early life by the study of some branch of natural history after the manner of John Hunter, or in one of our public schools where science is recognised, as may have been the lot of a few of you, you will under either of these circumstances have gained an advantage of great value over your fellow-pupils who have been less fortunately placed, for such will soon have discovered how difficult it is, even in early manhood, to make up for the deficiency of their primary education; and yet it has to be done; for as medical students you will have found out that to gain any success worth having a degree of keenness and adaptability of sight, hearing, and touch is absolutely essential, and that to acquire eminence such keenness must not only be of a high order but it must be associated with an intelligent appreciation of the fact observed. To attain the degree of intelligent observation which is so essential for the practitioner of medicine may be a task of difficulty. Some students never acquire it. Those who do so in a high degree are amongst the best, but there must be many degrees of efficiency, and I want to help you in the solution of this problem out of the somewhat extensive opportunities I have enjoyed of teaching, testing, and investigating, and in so doing I must ask my younger hearers to put into practice what I may suggest and your younger

teachers by testing your capabilities to help you in your efforts. To my senior hearers I venture to apologise for having taken upon myself under present circumstances the rôle of a teacher and to ask them to explain my action by the confidence I have in the value of the recommendations I am about to bring before you. In your hands, however, I feel sure of support, for your experience will certainly justify the action I am now taking.

As scholastic conditions exist at present the education of the senses has in school life, unfortunately, been left to chance, and no special means have been introduced into school routine for their education. In university life the introduction of some branch of natural science as a preliminary subject of study has been an educational advance of great importance, not only as an introduction to the knowledge of Nature's works, but as a means of demonstrating the value of modes of investigation which are applicable to every branch of human research. Under all circumstances, however, the education of the special senses should be a leading object of all teachers, and the best way of carrying out this purpose in medical education is by testing the student's capabilities. The bulk of the work, it is true, must be left to the students themselves, but still they can be encouraged, and by being so will surely be materially helped. A medical student may watch with every care an able teacher in his endeavour to unravel the intricacies of a complicated case of disease, but he will not gain much by his observation, for he cannot see, hear, or feel with his teacher's senses, but can only do so with his own; and when he has advanced far enough to consider the meaning of a diagnosis he will have discovered that a reliable one can only be the outcome of a correct observation of the facts of the case as brought out by his own observation and the conclusion of sound reasoning upon the facts themselves.

How, then, it may be reasonably asked, is a student to learn how to make the best use of his senses for medical purposes? There is but one answer, and that is by steady and prolonged practice—and this practice must be established on a method. Let the student, as a rule of life and as a matter of routine, habitually begin his investigation of every case by looking well at his patient *as a whole* and subsequently in detail, and as he progresses in the powers of observation he will be astonished and pleased to have discovered how much may be learnt by a look and how valuable the intelligent look has been. In local injuries and diseases let him follow an equally valuable routine practice and as a matter of habit invariably compare the injured with the corresponding uninjured part, and having noted the facts observed with the points of difference in the two sides of the body let him reflect and reason upon the value of the facts—indeed, upon the value of each fact. By such a routine practice a provisional diagnosis may have been reached which has either to be supported or refuted by subsequent inquiries into the history of the case and any other facts which may have been elicited by manipulation and the sense of touch. In all cases let sight lead the way and touch follow, reflection governing the whole. In a large number of cases it will be found that the objective facts elicited by sight are alone enough to suggest a diagnosis, which has only to be supported by the points afforded by the history of the case and the facts brought out by manipulation and palpation. In local injuries or diseases a student is too apt to commence his examination of a case by manual methods, much to the detriment of his patient and his own discomfiture; this natural but inefficient routine ought not to be allowed, for as a rule a good inspection of the injured or diseased part and its comparison with the sound side will supply suggestions as to the nature of the case which will only require the gentlest manipulation of the surgeon to confirm, the diagnosis of the case being based upon the facts seen and felt, the history of the case, and the exercise of thought upon the facts. Examiners will greatly help the establishment of this habit of investigation by asking pupils primarily to look at a case and to describe what they see before they are allowed to use their hands. I would suggest, in order to assist self-help in the education of sight, that house surgeons, fellow-dressers, and clinical clerks examine each other in any given case as to what they see; and argue out the probabilities of the nature of the case upon the points observed; and having done so to proceed to their investigation of the affected part by manipulation or other necessary methods. I would likewise ask the junior teachers of the schools or university to encourage such efforts, for as an old

teacher I can speak strongly in favour of them as well as of their efficiency. Indeed, by acting upon this suggestion fresh pleasures will be added to study, for students readily recognise the value of the method of approaching a case in the way I am advocating and find a pleasure in the recognition of the existence of a power of observation which had been dormant and which yields pleasure and profit by its cultivation. As an examiner I can likewise give strong testimony to the importance of this method of testing knowledge, for at the Royal College of Surgeons of England, where I commonly employed it, it was most instructive, and I can recall the interest which my old friend and fellow examiner the late Sir George Humphry took in the proceeding and how in his enthusiasm he subsequently took it to Cambridge and embodied the value of the method in his well-recognised precept, "Eyes first, hands next, and tongue last." I may add that it was in the differential diagnosis of a scrotal swelling that I first realised the full value of the method I am inculcating, when I, indeed, demonstrated that a student could by the eye alone, by this process of elimination, reach a provisional diagnosis of the case before him, which had only to be confirmed or confuted by manipulative methods, a history of the case, and the exercise of reason.

To dwell upon the value of the sense of touch is surely unnecessary; the *tactus eruditus* of the skilled surgeon is always a wonder to the uninitiated and is only to be acquired by much practice. In learning it I would impress upon the student that it can be educated as quickly by gentle manipulation as by the reverse, and that anything like roughness should always be avoided. To appreciate the significance of feeling the pulse is likewise the product of great practice and much thought. To estimate the presence or absence of tenderness in any part, and particularly in the abdomen, is always difficult, but in all circumstances gentle pressure is more likely to elicit the required information than severe pressure. In my own practice I have found a method of examining a sensitive patient upon this point of such great value as to induce me to describe it to you. I simply place my hand upon the part involved and tell the patient to press upon it with his or her hands until pain is produced; by so doing I can do no harm but learn much, and I am often startled by the greater amount of pressure a patient will by this method endure than I should have ventured to have employed.

With these suggestions to help you in your clinical work I must bring my remarks to a close. I have appreciated very highly the compliment you have paid me by inviting me to give away the prizes upon this the conclusion of the first academic year of the medical school of your new university; I recognise to the full the sound and liberal principles upon which your university has been founded, and congratulate you, your townsmen, and particularly your Chancellor, upon the energy and triumphant skill with which its establishment has been accomplished. I can now only wish you all God-speed in your work. It was from such feelings that I have been led to give you the few practical hints which the active work of a fairly long life has enabled me to formulate, to help you in the difficult task of educating your special senses, upon the successful use of which your future success in life must materially depend; they may to some of you seem trivial and unworthy of a great occasion, to others they may appear worthy of a trial, to a few they may seem sound. They form, at any rate, the first attempt to supply a great want and to educate systematically the special senses of medical students by methods which have been proved of value in general clinical work, for they have been tested somewhat extensively both in teaching and examining and are as valuable to examiners and teachers as to students. If I were a Rip van Winkle and could revisit this infant university 100 years hence I should probably find that these suggestions of mine, having done some good, had been incorporated into general teaching methods, and that as natural science had become part of general education the special senses of all students would have been cultivated far more efficiently than they can be said to be at the present time. I should certainly find this University possessing a history as proud as any of its pre-ent compeers, and with future prospects bright enough to satisfy the minds of the most hopeful of its present founders. What Birmingham itself would have become by "the application of the highest science to its commonest industries and manufactories" I will not venture to predict, for the mind can now hardly realise the possibilities which open out from such a point of view. As to medical science, the applied science of all the arts and

sciences for the benefit of man, such would certainly be still in existence, but how can we picture its position? for by preventive medicine, the use of antitoxins, and the influence of friendly bacteria many of the diseases which at the present day are most destructive will probably have been cleared away, the art of living have become more perfect, and the art of curing not have taken a back place. Life and death will, however, still be present, and men and women with the same natures as now exist, although under altered and possibly improved conditions. New diseases, or old ones so modified as to seem new, may have come into existence as moulded by the altered circumstances of life and encouraged if not brought about by the use of peptones, pharmaceutical fancies, self-drugging, and refinements of daily life. Hope of higher things would not have departed, for Birmingham University, with others like it, would still be in existence and be doing their beneficent work to make life more useful, more profitable, and therefore happier.

I thank you, gentlemen, for your attention and in the words of your Chancellor close these remarks with "*Floreat universitas nostra.*"

#### ABSTRACT OF

### Presidential Address

ON

## THE DECLINE IN THE ART OF PRESCRIBING.

*Delivered before the St. Mary's Hospital Medical Society on Oct. 16th, 1901,*

By ARTHUR P. LUFF, M.D., B.Sc.,  
F.R.C.P. LOND.,

PHYSICIAN IN CHARGE OF OUT-PATIENTS AND LECTURER ON FORENSIC MEDICINE IN ST. MARY'S HOSPITAL.

GENTLEMEN,—The subject that I have selected for my address to you this evening is the decline in the art of prescribing. It is a subject which has given me cause for much painful reflection for several years, and it is one which, in my opinion, affects very closely the welfare of the public as well as the usefulness and dignity of the medical profession. I think there cannot be the slightest doubt but that the art of prescribing—that is, of ordering suitable remedies in suitable forms for the treatment of morbid conditions—is declining, and that this very important function of the medical man is being replaced by what I consider to be the slovenly and enervating habit of writing an order for some proprietary preparation or for some compressed form of drug, and then dignifying such an order with the title of a prescription. There is, I think, a tendency at the present time in this era of brilliant discoveries in medicine, pathology, and bacteriology, and in this age of splendid advances in surgery, to neglect the treatment of common and of minor ailments by drugs. Let me, however, impress upon you that in the treatment of such ailments lies the principal part of your work as medical practitioners, and that the gauge by which your success in practice will be mainly measured, and the esteem in which to a great extent you will be held by your patients, will depend upon the success you attain in the treatment and cure of what may superficially appear to be but trifling ailments, but which, none the less, as departures from ordinary health are naturally considered by the individual sufferers as important, and therefore as deserving the careful attention and the skilled therapeutic resources of the medical man.

In my opinion the main reasons for the present decadence in the art of prescribing are the altogether inadequate attention which is given to the teaching of the subject by the majority of the members of the staffs of the various teaching hospitals, and the scanty test applied by so many of the examining bodies as to the possession of a knowledge of rational prescribing on the part of candidates presenting themselves for the final examinations. The want of attention which is given to the teaching of the subject in our large hospitals is certainly, as far as the out-patient

department practice is concerned, in some measure due to the over-pressure of work consequent on the number of patients that have to be seen and treated in a given time—an over-pressure which necessitates, to some extent, the ordering of medicines already prepared according to some formula in the hospital pharmacopœia. The prescribing of these ready-made medicines undoubtedly saves the time of the physician or surgeon and of the dispenser, but, unfortunately, the outcome of the custom of ordering ready-made mixtures, &c., is that the students soon fall into the habit and carry it with them into private practice. Consequently they have no opportunity of acquiring confidence in their own powers to write a useful prescription and so fall a ready prey to the temptations offered them by manufacturers to prescribe some ready-made proprietary medicine or some form of a compressed drug. It has been stated that the hospital practice of ordering mixtures, pills, &c., by the titles under which they appear in the hospital pharmacopœia is not detrimental to the acquisition of a knowledge of correct prescribing, since the student can always refer to the pharmacopœia for information as to the composition and strength of the medicine ordered. I, however, strongly maintain that the information so obtained is in no sense comparable to the educational advantages of hearing the dictation of a prescription in full. There is no better method of acquiring a knowledge of correct dosage, and of the avoidance of incompatible ingredients, than by hearing the physician or surgeon dictate his prescription, comment on the dosage of the ingredients, and give his reasons for the employment of such ingredients. On the other hand, if it is left to the student to look up the composition of a medicine from the hospital pharmacopœia he is apt to forget to do so, and certainly he can never in that way either acquire a tithe of the knowledge, or retain the information so well in his memory, as by hearing the dictation of a prescription in full.

What I wish to impress is that in order to learn thoroughly the true art of prescribing it is essential, in the first place, that when you proceed to your hospital work you should give a regular and full attendance to the work in the wards and out-patient departments, and, secondly, that your teachers should recognise the importance of imparting to you a knowledge of correct prescribing for the individual cases before you, and should abandon, to some extent at all events, the set habit of ordering the ready-made medicines. Here I must touch upon what I consider to be a serious obstacle to the adequate attendance on the practical work I am advocating. I refer to the altogether unnecessary amount of time that you are required to give to so-called systematic courses of lectures. It is no uncommon experience for me when engaged in my out-patient room in the practical teaching of the diagnosis and treatment of disease, to see the students at a certain hour trooping away—unwillingly, I trust—to the set lectures which they are compelled to attend in order to be signed up for their examinations. Most cordially do I endorse the hope recently expressed by Dr. P. W. Latham, in his admirable opening address at St. George's Hospital, that the time may not be far distant when systematic lectures on medicine, surgery, pathology, pharmacology, forensic medicine, &c., will be discontinued, and students will thereby be enabled to devote more attention to practical work and demonstrations. As Dr. Latham said, "Formal lectures on these subjects are the inheritance of an ancient system, the relics of a time when books were scarce, but the system lingers on and apparently will die hard." I earnestly desire to see the abolition of certificates of attendance on most lectures and to witness the licensing bodies taking the bold and honourable stand of ascertaining for themselves whether students possess the requisite knowledge, and ceasing to require the guarantee that candidates have sat through a given number of what possibly may be but dreary and uninteresting discourses. In medical training and learning I am a staunch advocate of the principles of free trade.

There is another aspect of the subject of prescribing to which I wish to direct your attention. The practice of writing an order for a particular form of compressed drug or for a proprietary preparation—for I cannot dignify such an act at the writing of a prescription—is apt to encourage patients to recommend such proprietary articles to their immediate friends who, in their opinion, are suffering from similar symptoms or from what they imagine to be a similar complaint. I need scarcely point out to you that what has been ordered as suitable treatment

for A may be remarkably bad for A's friends and may be productive of serious harm to them. Moreover, to look at the matter from another point of view, by giving your patients the opportunity of recommending these proprietary articles to their friends you are simply playing into the hands, and the pockets, of the manufacturers of those preparations, which are so speciously puffed, and with the samples and laudatory advertisements of which we are so profusely deluged. You may, perhaps, say that if you write an orthodox prescription for a medicine the patient is just as likely to recommend that to his friends. As an actual fact my experience is that such is not nearly so likely to occur as when a patient can name a proprietary article which can be readily purchased of any pharmacist or at any drug store. It is, I believe, the ready facility with which powerful drugs prepared in compressed and other forms are obtainable by the public that constitutes a very grave danger—a facility which is responsible to a great extent for the increasing practice of self-drugging, and I am much afraid that this state of affairs has been brought about by these preparations being so indiscriminately and so largely prescribed by medical men. It is simply appalling to witness the habit that has grown up of people keeping in their houses and carrying about in their dressing-cases compressed forms of powerful drugs which they employ to relieve pain either by taking them internally or by hypodermic administration, quite losing sight of the fact that the removal of the cause of the pain is much more important than the removal of the pain itself. Moreover, the temporary relief of pain frequently prevents the sufferer from seeking medical advice until the diseased condition which is the cause of the pain has become thoroughly established, and therefore more difficult to cure. In addition, the facility with which these forms of compressed drugs can be obtained and administered encourages that most evil of habits, the taking of narcotic drugs. Let me strongly advise you never to prescribe drugs of a sedative nature, such as antipyrin, antifebrin, &c., by such names, but by their scientific terms. For instance, order antipyrin as phenazone, antifebrin as acetanilide, and so on. In addition, never order them in compressed forms, but prescribe them to be taken in cachets or as powders. It is frequently my fate in my private consulting-room for patients to present for my inspection and supposed edification the so-called prescriptions of some of the very minor lights of medicine. These documents are frequently mere orders for some proprietary preparation possessing an outlandish name, the composition of which is generally absolutely unknown to the prescriber, whilst for its supposed therapeutic effects he has to depend on the statements of the manufacturer of the article. These orders are to me sad illustrations of the ease with which the writers have departed from the path of therapeutic righteousness—across each one there appears to my mental eye written the word "Ichabod." On the other hand, it has frequently been my privilege to see the prescriptions of one who certainly ranks amongst the greatest and most scientific of physicians that have graced the staff of this hospital, and it is at once apparent that each prescription has been carefully thought out and adjusted to the individual needs of the patient. To me these prescriptions, which are never debased by an order for a proprietary medicine, are grand therapeutic lessons.

In conclusion, gentlemen, let me beg of you to endeavour during your studentship here to cultivate by every means in your power a knowledge of the art of prescribing. Let me entreat you never to become the instruments by which your patients may be tempted to drift into the habit of self-treatment by compressed and other easily administered drugs—a habit which is tending to displace the true therapeutic art and which is tending to divert into the hands of purely commercial men that function which should remain the prerogative and the glory of the medical man.

**THE VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.**—The next class for the instruction of volunteer medical officers in the subjects of the proficiency examination will be held at 23, Cambridge-street, W., and will commence on Monday, Nov. 4th, at 5 P.M. Officers who wish to join the same should apply to the Senior Medical Officer, Volunteer Ambulance School of Instruction, at the above address.

## NOTE ON THE RESULTS OBTAINED BY ANTI-TYPHOID INOCULATION IN THE CASE OF AN EPIDEMIC OF TYPHOID FEVER WHICH OCCURRED IN THE RICHMOND ASYLUM, DUBLIN.

By A. E. WRIGHT, M.D. DUB.,  
PROFESSOR OF PATHOLOGY, ARMY MEDICAL SCHOOL, NETLEY.

I AM indebted to Mr. H. M. Cullinan of the Richmond Asylum, Dublin, for a detailed account of the outbreak of typhoid fever which occurred in that asylum in the autumn of last year, and for particulars with regard to the results obtained by anti-typhoid inoculation in connexion with that outbreak. From the materials above referred to I have abstracted the following narrative of events.

*Course of the epidemic.*—The first case of typhoid fever which occurred in connexion with the epidemic here in question came under observation on August 7th, 1900. From that date onwards to the end of December 54 cases of typhoid fever occurred among the patients and the nursing staff. The chronological distribution of these cases is exhibited in the following tabular statement.

August 7th to Sept. 6th	...	...	...	19 cases.*
Sept. 7th to Oct. 6th	...	...	...	8 cases.†
Oct. 7th to Nov. 6th	...	...	...	8 cases.‡
Nov. 7th to Dec. 6th	...	...	...	14 cases.‡
Dec. 7th to 24th (half month)	...	...	...	5 cases.§

\* Eight of these cases occurred among the nursing staff.

† One of these cases occurred among the nursing staff.

‡ Three of these cases occurred among the nursing staff.

§ All these cases occurred among the nursing staff.

*Particulars with regard to the anti-typhoid inoculations undertaken.*—Soon after the commencement of the epidemic Mr. Conolly Norman, the superintendent of the asylum, applied to me for a supply of anti-typhoid vaccine. This having been placed at his disposal a first batch of 45 patients was inoculated by Mr. Cullinan on Sept. 6th. When these had recovered from the effects of the inoculation another batch was taken in hand, until on Nov. 30th, after a series of 17 sittings, a total of 511 persons had been inoculated. The inoculations were carried out exclusively upon insane inmates below the age of 55 years. No member of the nursing staff underwent the operation. The dose of the particular vaccine administered was in each case 0.75 cubic centimetre, this being the dose which had been fixed upon as appropriate in the case of soldiers proceeding to South Africa. The symptoms produced by the inoculation are described as follows by Mr. Cullinan in a paper published in the *Dublin Journal of Medical Science* in July, 1901:—

The constitutional disturbance following the inoculation did not prove in any of the cases in my experience to be of great severity. In every case almost the temperature rose within a couple of hours, in some few instances reaching 103° and 104° on the day of operation, while 101° and 102° were common heights for it to attain. It usually fluctuated for a couple of days, coming down gradually from the maximum, and being generally normal on the third day. In every case operated on all the temperature records were kept. Except in the cases already specially mentioned patients were able to be up and about on the fourth day. The principal symptom was headache, from which 86 suffered, some of them very severely; vomiting or retching occurred in 63 cases; loss of appetite and refusal of food in 33; diarrhoea in two; rather severe prostration in three; four complained of abdominal pain; while stiffness in the back and soreness over the seat of inoculation occurred in nine and 22 cases respectively. The last symptom of soreness in the flank, where each patient was vaccinated, was not in any case accompanied by local manifestation beyond a slight redness of the part and some swelling.

In the light of the constitutional symptoms here described<sup>1</sup> and certain events to which attention is drawn below I think that a somewhat smaller dose of vaccine might appropriately have been prescribed by me. It must, however, be noted that the circumstances did not admit of two successive inoculations being undertaken, and no estimate could be formed as to how far the patients would at the time of inoculation be exposed to the risk of infection.

*Particulars with regard to the number of susceptible persons exposed to infection.*—Mr. Cullinan estimates that after excluding all patients above 55 years of age as insusceptible, the total number of susceptible persons exposed to infection

<sup>1</sup> The reference is to Cases 1, 2, and 6, reported below.

\* In this connexion vide THE LANCET, Sept. 14th, 1901, p. 715.

at the date on which the inoculations were begun may be fixed at 655; 541 of these were insane inmates, the balance of 114 being nurses. Of the former, as we have seen, 511 were ultimately inoculated.

*Number of cases of typhoid fever which occurred in the inoculated and in the uninoculated respectively after the commencement of the inoculations.*—On and after Sept. 6th 29 and seven cases of typhoid fever respectively occurred in the uninoculated and the inoculated groups. Before considering the question as to what was the relative incidence of cases in the two groups the circumstances of each of the seven cases which occurred among the inoculated may be briefly considered.

CASE 1.—The patient was discovered to be ill on Sept. 6th. "In this case," says Mr. Cullinan, "owing to an oversight, the patient's temperature was not previously taken, but was found to be 101° immediately after the operation, remaining high, and at once assuming the characteristic curve of typhoid fever." In accordance with the history this case may be transferred from the category of cases which developed in inoculated patients to the category of cases which developed in uninoculated patients.

CASE 2.—The patient in question was inoculated on Sept. 19th and developed the disease on Sept. 22nd. "This case," says Mr. Cullinan, "was found to have a normal temperature and was apparently in good health before inoculation. The temperature rose after the operation, but instead of going down in a few days persistently remained high and assumed enteric features almost at once. .... I think it may be concluded that she would have contracted the disease in any case." This conclusion that the patient had contracted the infection before inoculation would appear to be justified, inasmuch as the interval of two days usually covered by the febrile reaction produced by inoculation would appear to be much less than would be required for the incubation of the disease. None the less I have in the statistical table given below refrained from formally excluding this case from the category of cases occurring in the inoculated. I have contented myself with distinguishing it by the use of italics, brackets, and a note of interrogation from the other cases included in that category.

CASE 3.—"The patient in question was inoculated on Sept. 22nd, and on the 24th was quite well apparently, but on the 28th was found to have a temperature of 100° and a couple of doubtful spots. On the 30th there was a typical crop of spots. The case from that out *was a severe one* .... I would not [the quotation is still from Mr. Cullinan's paper] place this case definitely among those suffering from prodromal signs at the time of inoculation, but ..... as the spots began to appear six days after the operation I think we may fairly refrain from blaming the inoculation." In view of the possibility that the incubation period may run a shorter course in a patient who has in the meantime been subjected to inoculation it will be well to retain this case in the category of cases contracted subsequently to inoculation.

CASE 4.—The patient in question, a girl who had been inoculated on Oct. 3rd, having left the hospital three days after the operation, was attacked *very severely* on Oct. 15th. She was found on this day to have a crop of spots. *This patient died.*

CASE 5.—Inoculation was here performed on Sept. 22nd, and the patient, "who had been quite well in the interval," developed typhoid fever eight weeks subsequently "and was found to have a profuse crop of spots." Obviously there can be no doubt as to how this case is to be classified.

CASE 6.—The patient was inoculated on Nov. 12th and "was very ill after the operation, and continued so with a high temperature. On the 20th she had a crop of spots, having had all the appearances of typhoid in the interval." Mr. Cullinan feels disposed to regard this as a case in which the patient was sickening for the disease at the time of inoculation. This assumption seems to me justified in view of the short period which elapsed between inoculation and the development of the typhoid spots. The fact that the patient was "very ill after the operation" also points in this direction. None the less it will, as in Case 3 considered above, be preferable for the purposes of our statistical comparison to retain it in the category of cases contracted subsequently to inoculation.

CASE 7.—The patient, "a woman of about 50 years of age, operated upon on Nov. 5th, and getting over the effects in three days, was found on Nov. 17th with a temperature of 101°, and had a *very severe attack*, followed by a *relapse from which she nearly died*. I consider," says Mr. Cullinan,

"that on this case the serum—meaning thereby the typhoid vaccine—acted detrimentally and probably accentuated the severity of the attack."

Having in a very recent communication<sup>3</sup> discussed the general issue raised by Mr. Cullinan's comment, I may here leave the italics in the above protocols to speak to the attentive reader and proceed at once to summarise the results of the above analysis. That analysis has shown that of the inoculated persons attacked by the disease the *first* had certainly developed the fever before inoculation; the *second* had almost certainly contracted the infection before inoculation; and the *third* and *sixth* had also probably contracted it before inoculation. In the case of the *fourth* and *seventh* patients if the infection was, as would seem probable, contracted subsequently to inoculation it must have been contracted immediately afterwards, while the patients were still suffering from the effects of the operation. Thus the *fifth* patient would appear to have been the only one among the seven inoculated patients attacked who contracted the infection after the clinical symptoms due to the operation had passed off. Let us, however, for the purposes of our statistical comparison, admit that the last five, or even the last six, of the seven inoculated patients who were attacked may have contracted the disease subsequently to inoculation.

*Manner in which a comparison can be instituted between the incidence of cases in the inoculated and in the uninoculated.*—Our task will, then, be to express in the form of a valid comparison the fact that out of a body of 655, who consisted in part of inoculated and in part of uninoculated persons, five—or if we include Case 2 mentioned above, six—cases of typhoid fever occurred in the inoculated, while 30—or if we exclude Case 2 just referred to, 29—cases occurred in the uninoculated.

The first point which comes up for consideration in this connexion is the question as to whether the 114 uninoculated nurses who are included in the total of 655 susceptible persons were exposed to a greater risk of infection than the insane inmates. If they were not exposed to greater risk they may obviously be included among the "controls." In connexion with the risk incurred by the nursing staff Mr. Cullinan writes that "none of the nurses who contracted the disease contracted it by attendance on inmates suffering from enteric fever. All the nurses attacked were ordinary divisional nurses who spent their days in the same room as the inmates and for the most part slept off the dormitories, being in all respects as liable to infection as the inmates, except in the respect that sane people have, from the point of view of the risks undergone by them, in my opinion, a considerable advantage over the insane." It may, therefore, be taken that the nurses were at any rate not exposed to greater risks of infection than were the patients, and hence the figures relating to these may, equally with the figures relating to the uninoculated insane, be utilised for the purpose of instituting a comparison between the inoculated and the uninoculated. The complete data which have been furnished to me by Mr. Cullinan admit of two such comparisons being instituted. The first of these comparisons is a comparison between the number of cases occurring subsequently to the date of the completion of the inoculations in 504 inoculated persons<sup>4</sup> (insane inmates) and 114 uninoculated persons<sup>5</sup> (nurses). This comparison is as follows:—

*Number of Cases occurring in the Uninoculated and Inoculated respectively in the interval between the Completion of the Inoculations on Nov. 30th and the Development of the Last Case of Enteric Fever on Dec. 24th.*

	Number of persons under 55 years of age under observation.	Number of cases.	Number of deaths.
Uninoculated ...	114	5	0
Inoculated ...	504	0	—

The comparison in question brings out in a striking manner the comparative immunity of the inoculated; it is, however, robbed of a great deal of its interest by the fact that the

<sup>3</sup> THE LANCET, Sept. 14th, 1901, p. 715.

<sup>4</sup> This number is arrived at by subtracting the seven inoculated patients who developed the disease from the total of 511 who were inoculated.

<sup>5</sup> The number of nurses was kept up to 114 by replacing those attacked by the fever.

period of observation which is covered by the comparison is here a very short one. A comparison based on the average daily strength of the inoculated and the uninoculated will, therefore, be of greater interest, covering as it does the whole period of three and a half months from the commencement of the inoculations to the termination of the epidemic. For the purposes of such a comparison Mr. Cullinan has kindly furnished me with (a) the number of patients operated upon by him at each sitting and the dates of these inoculations; (b) a list of nurses and patients attacked with typhoid fever; and (c) a list of patients who died from other diseases or who were admitted or discharged during the period of observation. The third document may be left out of account as it shows that the number of individuals of a susceptible age who were admitted or discharged or who died from other diseases during the period of observation was so small as to be incapable of exerting any appreciable effect upon the general result. Having simplified our task in this way, we arrive at the number of the inoculated and uninoculated on each successive day by taking into account (a) the alterations in the number of the inoculated and uninoculated brought about by the successive inoculations and (b) the alterations in these numbers brought about by the development of typhoid fever in members of each group. Taking the numbers thus arrived at we now multiply in each case by the number of days during which that particular strength was maintained. Finally, we add together the figures relating to each group and divide in each case by the number of days included within the whole period of observation. In this manner we arrive at a daily average strength of 339 for the inoculated and of 298 for the uninoculated. We now institute our comparison by dividing the number of typhoid-fever cases which occurred in the inoculated and uninoculated groups respectively into the average strength of each group. Before considering the statistical result thus arrived at it will be well to realise why we are here justified in regarding a result obtained in the manner which has just been indicated as the result which correctly represents the relative incidence of typhoid fever in the inoculated and uninoculated groups. We shall realise this if we consider what is the assumption to which we are committed by the method of calculation here adopted. That assumption is that the cases of typhoid fever among the inoculated would not have been more numerous if the number of inoculated had stood throughout at 339 instead of standing, as it in reality did, at a lower figure on all dates previously to Nov. 5th and at a higher figure on all dates subsequently to this particular day. Now this assumption is manifestly justified if the risk of contracting typhoid fever was as great in the period between Nov. 5th and Dec. 24th when the inoculated numbered more than 339 as in the period between Sept. 6th and Nov. 5th when the inoculated numbered less than 339.

Mr. Cullinan's list of cases and dates of attack shows that this condition was satisfied, and more than satisfied, 16 cases of typhoid fever having occurred in the smaller number of uninoculated exposed to infection in the period subsequently to Nov. 5th, as against 14 cases in the larger number of uninoculated exposed in the earlier period. In conformity with this it may be confidently assumed that the comparison based on the average daily strength is a comparison which does not here exaggerate in favour of the inoculation procedure. The comparison in question is as follows:—

*Comparative Incidence of Typhoid Fever in Inoculated and Uninoculated calculated upon the Average Strength of the Respective Groups during the Period intervening between the Commencement of the Inoculations and the Termination of the Epidemic.*

—	Average strength.	Number of cases.	Number of deaths.	Percentage of cases.	Percentage of deaths.
Uninoculated	298	30 (- 1 f)	4	10·1	1·3
Inoculated ...	339	5 (+ 1 f)	1	1·5	0·3

It may be noted in conclusion that the result is in conformity with that of all the statistical returns of anti-typhoid inoculation which have reached me.

Netley.

## THE EFFECTS OF LEAD UPON LEAD-WORKERS IN THE STAFFORDSHIRE POTTERIES.

BY FRANK SHUFFLEBOTHAM, M.A., M.B., B.C. CANTAB.

WITH a view of determining to what extent the health of lead-workers in the Staffordshire potteries is affected by their employment I have made systematic examinations of the workers employed in 13 factories. These examinations have not been of selected cases, but include all the workpeople (with one exception) engaged in lead processes at the factories which I have visited, and my choice of these factories was made in the endeavour to obtain a series of potteries which might be regarded as a fair representation of the whole industry. Table I. gives the firms whose workpeople I have examined as well as their products of manufacture.

TABLE I.—*Showing the Names and Situations of the Firms and Products of Manufacture where the Persons examined were employed.*

No.	Name of firm.	Situation.	Products of manufacture.
1	Booths.	Tunstall.	Earthenware and tiles.
2	Doulton and Co.	Burslem.	Earthenware, china, and sanitary ware.
3	Dresden Porcelain Co.	Longton.	China.
4	T. Forester and Sons.	Longton (Phoenix and Mill Works).	Majolica and art pottery.
5			
6	W. H. Grindley and Co.	Tunstall.	Semi-porcelain.
7	Grove and Co.	Longton.	Earthenware.
8	Hawley, Webberley, and Co.	"	Earthenware and majolica.
9	Longton Porcelain Co.	"	China.
10	J. and G. Meakin	Hanley (Eagle and Eastwood Works).	Semi-porcelain and granite.
11			
12	Ridgways.	Shelton.	Earthenware and semi-porcelain.
13	Josiah Wedgwood and Sons	Etruria.	Earthenware, china, majolica, and tiles.

Between 6000 and 7000 people are employed at these manufactories, of whom 528 are engaged in lead processes. The figures here given show the approximate ratio of lead-workers to the total number of operatives throughout the whole of the Staffordshire potteries.

These lead processes involve many different occupations, the nature of which I will briefly explain. They may be divided into two main divisions, the first of which comprises the various operations of glazing, while under the second heading may be grouped certain decorative processes in which lead compounds are used for their colour effects. In the former group the work is subdivided between dippers, dipping-house assistants, ware-cleaners, and glost-placers. "The dipper's business is to coat the 'biscuit' ware with a layer of glaze by plunging it into a bath containing the finely-ground glazing materials in suspension in water" (Burton). Lead compounds are essential constituents in the preparation of glazes for every kind of pottery except hard porcelain and salt-glazed ware. The assistants in the dipping-house hand up the ware to the dipper and take it from him when it has been dipped, and the ware-cleaners "examine the pieces to see that they are properly dipped and remove all superfluous glaze by scraping with a knife or other suitable means." The glost-placer packs the glazed ware into saggars which he carries into the ovens where the glaze is melted on. Dippers and glost-placers are invariably adult males, dipping-house assistants are either boys or young women, while ware-cleaning is an occupation carried on generally by females, but in some factories youths are employed for this purpose. In the principal decorative processes which entail the use of lead women and girls are for the most part engaged. The majolica painter paints coloured glazes upon the ware, and the

TABLE II.—SHOWING THE OCCUPATIONS OF THE PERSONS EXAMINED AND THE TIME THEY HAVE WORKED IN LEAD.

No.	Occupations.	Men.							Women.							Grand total.
		Time they have worked in lead.						Total men.	Time they have worked in lead.						Total Women.	
		Over 30 years.	Between 20 and 30 years.	Between 15 and 20 years.	Between 10 and 15 years.	Between 5 and 10 years.	Under 5 years.		Over 30 years.	Between 20 and 30 years.	Between 15 and 20 years.	Between 10 and 15 years.	Between 5 and 10 years.	Under 5 years.		
1	Millers... ..	2	3	1	1	2	4	13	—	—	—	—	—	—	—	13
2	Glaze and colour-mixers	—	—	—	2	1	5	8	—	—	—	—	1	4	5	13
3	Dippers ... ..	7	6	5	8	17	8	51	—	—	—	—	—	—	—	51
4	Dipping-house assistants	1	—	—	—	1	28	30	—	—	—	2	3	43	48	78
5	Ware-cleaners ... ..	—	—	—	—	2	1	3	—	2	1	—	4	19	26	29
6	Glost-placers ... ..	23	35	37	47	47	36	225	—	—	—	—	—	—	—	225
7	Sagger-washers ... ..	—	—	—	—	3	6	9	—	—	—	—	—	—	—	9
8	Majolica-paintresses ... ..	—	—	—	—	—	—	—	2	8	1	6	3	10	30	30
	Cyprian workers ... ..	—	—	—	—	—	—	—	—	1	—	—	—	8	9	9
9	Ground-layers ... ..	—	1	1	—	1	1	4	—	—	—	1	2	5	8	12
10	Aerographers ... ..	—	—	—	—	—	—	—	—	—	1	—	—	23	24	24
11	Colour-dusters ... ..	—	—	—	—	—	—	—	—	—	—	—	2	12	14	14
12	Litho-chrome transferrers	—	—	—	—	1	2	3	—	—	—	—	4	7	11	14
13	Other employments ...	—	—	—	—	—	2	2	—	—	—	—	—	4	4	6
—	Totals ... ..	33	45	44	58	75	93	348	2	11	3	9	19	135	179	527

cyprian worker puts on the different coloured glazes at the dipping-tub. Ground-layers, aerographers, and colour-dusters are operatives who use lead compounds in the form of dust, which is applied to the surface of the ware after it has been glazed and fired. The glazes and colours are prepared by millers and glaze- and colour-mixers, and the sagger-washer is generally a labourer who devotes several hours in each week to washing the interiors of the new saggars with a lead-containing glaze. Table II. shows the occupations of the people I have examined and also the time they have worked in lead.

It should be noted at the outset that lead poisoning is a very subtle disease, which may assume many different forms the symptoms of which are common to other diseases, and its diagnosis should only be made after the most careful examination. The disease is characterised by the following symptoms: (a) anæmia, (b) blue line on the gums, (c) biliousness, and (d) headache, apart from biliousness; while in more severe cases we may find (e) constipation, (f) gout, (g) colic, (h) paralysis of the arms and the legs, (i) epilepsy, (j) insanity, (k) disturbance of vision, (l) abortion, and (m) that group of symptoms pointing to chronic Bright's disease. None of these symptoms, however, are pathognomonic of lead poisoning. Anæmia is the commonest disease to which girls and young women are subject, whether they work in lead or not. Headache is one of those complaints of which everyone has had experience more or less; when accompanied by loss of appetite, nausea, and vomiting its cause may be traced to carious teeth, to improper food, or to alcoholism. Constipation may be due to 50 different causes: it is often a family complaint, or it may result from coarse food or sedentary habits. Again, lead is not the only cause of colic. Heredity is an important predisposing cause to gout, to chronic Bright's disease, and to abortion, and along with chronic alcoholism in the parent and syphilis is a potent factor in the production of epilepsy and insanity. In a patient suffering from lead poisoning the blue line on the gums often gives the clue to the nature of the complaint, but the blue line unaccompanied by any of the above symptoms is not lead poisoning. When any of these symptoms have arisen in the 527 cases which have come under my notice I have endeavoured to ascertain their true causes and have not immediately jumped to the conclusion that lead was the source of all the trouble. In Table III. will be seen some of the results of my examinations.

Not a single case of gout, epilepsy, insanity, or disturbance of vision (excepting cases of presbyopia) had ever occurred in any of the 527 workpeople since they began to work in lead. A youth and a woman had suffered from epilepsy as children, and 24 work-people had a strong family history of this disease; but in spite of the predisposing tendency of their employment superimposed upon an hereditary liability none

of them had been affected in any way. Near relations of 14 lead-workers have been confined in the county asylums for mental diseases. Again, we might expect to find that the hereditary tendency would be accentuated by their employment, but in no case was there any history or any sign of mental trouble in the lead-workers themselves. I have had

TABLE III.—Showing the Results of the Examinations.

No.	Symptoms.	Found in—	Remarks.	References to other Tables†
1	Anæmia.	6 women.	All were anæmic before they commenced to work in lead.	V.(a)
		19 men.	Caused for the most part (1) by excessive alcohol drinking, and (2) by carious teeth.	IV.(a)
2	Biliousness.	30 women.	Caused by (1) carious teeth, and (2) by excessive tea-drinking. One woman was suffering from lead-poisoning. (See paralysis and Table V.(a).)	V.(a)
		21 men.	Caused by (1) carious teeth, (2) heat of ovens, and (3) weight of saggars (a large number of men temporarily suffer from headache after drinking bouts).	—
3	Headache apart from biliousness.	35 women.	Caused by (1) constant use of hair-curlers, by (2) carious teeth, and by (3) heat of the workshops.	—
4	Constipation.	1 man. 19 women.	Much below the general average.	V.(b)
5	Colic.	1 woman. 4 men.*	Due to ovarian disease. At time of examination apparently enjoying good health.	V.(a) IV.(a) IV.(c)
6	Paralysis of arms.	1 woman.	A marked case of paralysis of both arms, accompanied by vomiting, nausea, headache, constipation, in addition to the blue line on the gums. She was a majolica paintress who had worked in this occupation for 12 years.	V.(a)
7	Initial symptoms of chronic Bright's disease.	7 men. 2 women.	Not a large number since 61 operatives had reached the age of 40 years. Three of the 7 men were brothers.	IV.(b)

\* In these cases there was a history of colic.

† The references in the last column will show which of the lead-workers included in the table have the blue line on the gums.

the opportunity of examining one man who was sent to Wolverhampton for electrical treatment, but after a careful examination and a quiet talk with him I was of the opinion that he had been suffering, and was suffering, from gonorrhoeal rheumatism.

*The blue line on the gums.*—I have already remarked that the blue line on the gums, when unaccompanied by other symptoms, does not denote lead-poisoning. It merely indicates the presence of lead in the system. This blue line is a series of black dots along the edge of the gum, and consists of a deposit of lead sulphide formed by the action of the sulphur found in the tartar of the teeth on the lead-containing organic compound held in solution in the blood. It may be quite marked and observable by the naked eye; in some cases it is very faint and only seen by the aid of a magnifying lens. In nine lead-workers I noticed a

general blueness of the gums, although no line was observed. There is one condition which may simulate a blue line. Several times I have seen between the edge of the gums and the teeth a deposit of soot (which in combination with common salt is frequently used as tooth powder) look at first sight very much like the blue line, but on using a lens the error has been detected. Tables IV. and V. give details of each lead-worker in whom the blue line or blueness of the gums was perceived.

*Abortion.*—It is a reputed fact that the wives of lead-workers are prone to abortion, but my own observations hardly confirm this. 188 of the men were married and the wives of 19 of them had had one miscarriage each, seven had had two miscarriages each, and four three miscarriages. The wives of the remaining 158 married men had had no miscarriages. In six cases the miscarriages took place before

TABLE IV.—GIVING DETAILS OF THE MEN (a) WITH A DEFINITE BLUE LINE ON THE GUMS; (b) WITH A FAINT BLUE LINE OR ONE ONLY OBSERVABLE WITH A MAGNIFYING LENS; AND (c) WITH NO BLUE LINE BUT WITH GENERAL BLUENESS OF THE GUMS.

(a) Men with a Definite Blue Line on the Gums.

No.	Occupation.	Age.	Number of years worked in lead.	Previous medical history.		Condition of health at time of examination.	No. of years married.	Number of children.	Number of miscarriages.
				Illnesses depending on their work.	Illnesses independent of their work.				
1	Glost-placer.	32	16	Colic in 1896.	None.	Good. No constipation.	11	3	—
2	Dipper.	42	28	None.	—	Alcoholic cirrhosis of the liver.	17	3	2
3	Glost-placer.	38	28	..	Rheumatic fever in 1879; chronic bronchitis for years.	Chronic bronchitis.	14	7	—
4	..	34	14	..	—	Markedly alcoholic; acne rosacea, dyspepsia, morning sickness.	11	4	—
5	..	47	37	..	Operation for tuberculous glands in the neck in 1879; influenza in 1897.	Good.	15	3	—
6	..	38	27	Stoppage in bowels at age of 13 years.	Never ill since.	..	14	4	1
7	Dipper.	19	7	None.	None.*	..	—	—	—
8	..	19	5½	..	..*	..	—	—	—
9	Dipping-house assistant.	59	1	None (plate-maker previously).	..*	..	36	16	—
10	Dipper.	39	23	Stoppage in bowels in 1895.	..	..	11	—	—
11	Sagger-washer.	26	10	None.	..*	..	—	—	—
12	Glost-placer.	40	26	..	..*	..	—	—	—
13	..	50	34	..	Chronic bronchitis for years.	Chronic bronchitis.	23	8	—
14	..	35	20	..	Lumbago in 1895.	Good.	9	4	—
15	..	46	28	..	None.*	..	21	8	—

(b) Men with a Faint Blue Line or one only observable with a Magnifying Lens.

1	Glost-placer.	28	8	None.	None.*	Good.	7	3	—
2	Dipper.	16	2	..	..*	..	—	—	—
3	..	48	38	Chronic Bright's disease. This might be independent of the lead work and in my opinion is so.	Variola at age of 19 years; chronic bronchitis for years; chronic Bright's disease.	Chronic Bright's disease; chronic bronchitis.	27	8	—
4	..	17	5	None.	None.*	Good.	—	—	—
5	Sagger-washer.	19	6	..	..*	..	—	—	—
6	Miller.	22	8	..	..*	..	4	1	—
7	Dipping-house Assistant.	16	2	..	..*	..	—	—	—
8	..	15	5 weeks	..	..*	..	—	—	—
9	Dipper.	29	9	..	..*	..	1½	1	—
10	Glost-placer.	34	22	..	..*	..	11	5	—
11	..	23	12	..	..*	..	—	—	—

(c) Men with no Blue Line but with General Blueness of the Gums.

1	Glost-placer.	32	4	None.	None.*	Good.	11	7	1†
2	Dipper.	34	24	Colic in 1896.	No other illness.	..	15	6	—
3	..	22	8	None.	None.*	..	—	—	—

\* In these cases not a single day's work had been lost through ill-health since the operative commenced to work in lead.

† In this case the miscarriage took place before the husband commenced to work in lead.

TABLE V—GIVING DETAILS OF THE WOMEN (a) WITH A DEFINITE BLUE LINE ON THE GUMS; (b) WITH A FAINT BLUE LINE OR ONE ONLY OBSERVABLE WITH A MAGNIFYING LENS; AND (c) WITH NO BLUE LINE BUT WITH GENERAL BLUENESS OF THE GUMS.

## (a) Women with a Definite Blue Line on the Gums.

No.	Occupation.	Age.	Number of years worked in lead.	Previous medical history.		Condition of health at time of examination.	Number of years married.	Number of children.	Number of miscarriages.
				Illnesses depending on their work.	Illnesses independent of their work.				
1	Majolica paintress.	26	13	Constipation for years (which might be independent of lead).	Colic due to ovarian disease.	Ovarian swelling and tenderness; piles; no blue line round anus.	5	—	—
2	Majolica paintress; sister to No. 1.	24	12	Paralysis of arms for 10 months, accompanied by vomiting, headache, &c.	—	Marked paralysis of both arms.	—	—	—
3	Ware-cleaner.	22	5	None.	None.*	Good.	—	—	—
4	Majolica paintress.	38	20	"	"*	"	16	4	1
5	Oyprian worker.	23	4	Certified as suffering from lead-poisoning in 1899.	—	"	6	3	—
6	Dipping-house assistant.	23	5	Suspended from work in March, 1901.	Anæmia for last nine years.	Anæmia.	—	—	—
7	"	18	4	None.	None.*	Good.	—	—	—

## (b) Women with a Faint Blue Line or one only observable with a Magnifying Lens.

1	Dipping-house assistant.	17	3 months	None.	None.*	Good.	—	—	—
2	"	19	6 months	"	"*	"	—	—	—
3	Ware-cleaner.	24	6 months	"	"*	"	5	2	1
4	Dipping-house assistant.	43	6 months	"	None* (constipation for last four years).	"	25	5	—
5	Ware-cleaner.	21	4	"	"*	"	1½	1	—
6	"	20	5	"	"*	"	—	—	—
7	Dipping-house assistant.	16	1	"	"*	"	—	—	—
8	"	15	6 weeks	"	"*	"	—	—	—
9	"	19	8 months	"	"*	"	—	—	—
10	Aerographer.	20	2	"	"*	"	—	—	—
11	Colour-grinder.	16	2	"	"*	"	—	—	—

## (c) Women with no Blue Line but with General Blueness of the Gums.

1	Majolica paintress.	33	20	None.	Dyspepsia for years on account of shocking condition of teeth.	Dyspepsia.	13	1	Many
2	"	49	3	"	None.*	Good.	22	2	2†
3	Dipping-house assistant.	18	3	"	Attack of acute indigestion in 1900.	"	—	—	—
4	Aerographer.	39	2	"	Was treated for gastric ulcer in 1898. None since working in lead.*	"	20	7	—
5	"	26	3	"	None.*	"	—	—	—
6	Litho-chrome transferer.	18	2	"	"*	"	—	—	—

\* In these cases not a single day's work had been lost through ill-health since the operative commenced to work in lead.

† In this case the miscarriages took place before the mother commenced to work in lead.

the husband commenced to work in lead. Table VI. (a) gives statistics as to the number of pregnancies of the lead-workers' wives who have never aborted, from which it will be seen that these people are very fertile. Table VI. (b) offers similar information about the wives who have had miscarriages. A comparison between these tables shows that in Table VI. (b) not only is the average number of pregnancies greater than in Table VI. (a), but also the average number of normal confinements. Two of the men whose wives appear in Table VI. (b) are found in Table IV. (a) as showing a distinct blue line on the gums, but neither of these men could be said to be suffering from lead-poisoning. The majority of the miscarriages recorded in Table VI. (b) are most probably due to the frequency of the pregnancies.

Among the married female workers 18 had had miscarriages out of a total of 55; seven of these had miscarriages before they commenced to work in lead, and three other women had an hereditary tendency to abort. Many of the miscarriages are due to the fact that the women continue their work as usual during the time they are pregnant to within a day or two of confinement. Reference to Tables V. (a), V. (b), and V. (c), will show that four women who experienced miscarriages had the blue line on the gums, one of whom had

TABLE VI. (a).—Showing the Number of Pregnancies in Lead-workers' Wives who have never Aborted.

Number of years married.	Number of wives.	Total number of pregnancies.	Number of pregnancies in one family.		Average number of pregnancies in one family.*
			Maximum.	Minimum.	
Over 30 years ... ..	7	59	16	4	8.4
Between 20 and 30 years...	25	167	12	0	6.6
" 15 " 20 " ...	15	79	12	1	5.2
" 10 " 15 " ...	27	112	7	0	4.1
" 5 " 10 " ...	30	80	5	0	2.6
" 2 " 5 " ...	32	49	3	1	1.5
Under 2 years ... ..	22	20	2	0	0.9

\* The average number of pregnancies of a married woman is 4.5 (Landois and Stirling).

her; miscarriages before she worked in lead. All four had never lost a single day's work through ill-health in their lives. Although the number of married women working in lead was small I have ventured to tabulate them in the same way as the wives of the male operatives. Tables VII. (a) and VII. (b) will correspond respectively to Tables VI. (a) and VI. (b).

TABLE VI. (b).—*Showing the Number of Pregnancies and Miscarriages in Lead-workers' Wives who have Aborted.*

Number of years married.	Number of wives.	Total number of pregnancies.	Total number of miscarriages.	Total number of normal confinements.	Average number of pregnancies in one family.	Average number of normal confinements in one family.
Over 30 years ... ..	3	35	6	29	11.6	9.6
Between 20 and 30 years	6	52	10	42	8.6	7.0
.. 15 .. 20 ..	3*	25	5	20	8.3	6.6
.. 10 .. 15 ..	5	33	8	25	6.6	5.0
.. 5 .. 10 ..	1*	8	1	7	8.0	7.0
.. 2 .. 5 ..	4	24	7	17	6.0	4.2
Under 2 years ... ..	4	19	4	15	4.7	3.7
	4	12	4	8	3.0	2.0

\* In these cases the miscarriages took place before the husbands commenced to work in lead.

TABLE VII. (a).—*Showing the Number of Pregnancies in Women working in Lead.*

Number of years married.	Number of women.	Total number of pregnancies.	Number of pregnancies in one family.		Average number of pregnancies in one family.
			Maximum.	Minimum.	
Over 30 years ... ..	2	18	11	7	9.0
Between 20 and 30 years...	5	22	7	0	4.4
.. 15 .. 20 ..	6	21	6	1	3.5
.. 10 .. 15 ..	2	0	0	0	0
.. 5 .. 10 ..	7	11	4	0	1.5
.. 2 .. 5 ..	6	11	3	1	1.8
Under 2 years ... ..	9	5	2	0	0.6

TABLE VII. (b).—*Showing the Number of Pregnancies and Miscarriages in Women working in Lead who have Aborted.*

Number of years married.	Number of women.	Total number of pregnancies.	Total number of miscarriages.	Total number of normal confinements.	Average number of pregnancies in one family.	Average number of normal confinements in one family.
Over 30 years ... ..	1*	6	1	5	6.0	5.0
Between 20 and 30 years	1	2	1	1	2.0	1.0
.. 15 .. 20 ..	1*	4	2	2	4.0	2.0
.. 10 .. 15 ..	4	28	6	22	7.0	5.4
.. 5 .. 10 ..	5*	27	5	22	5.4	4.4
.. 2 .. 5 ..	5	?	?	12	?	2.4
Under 2 years ... ..	—	—	—	—	—	—

\* In these cases the miscarriage took place before the mothers commenced to work in lead.

*Final conclusions.*—After giving each case which has come

under my observation full consideration I have come to the following conclusions:—

1. That of the 527 lead-workers I only met with one case of lead-poisoning.

2. That individual symptoms, which at first sight might have been attributed to lead-poisoning, were found upon closer examination to be due to other causes.

3. That the health record of the lead-workers was excellent (the complaints I have mentioned are for the most part only minor ailments). Of 348 men 196 have not lost a single day's work through ill-health from any cause whatever since they commenced to work in lead, and the same may be said of 90 out of 124 single women; 26 out of 55 married women have only been absent through confinements.

4. That the general condition of the work-people was good and would compare favourably with that of a like number of workers in any average healthy trade.

5. That the 91 operatives who had worked in lead for over 20 years were not suffering any ill-effects from their employment, although they had worked for years under practically no regulations.

6. That it must always be remembered that lead-workers are subject to the common ailments of life just in the same way as other people.

Newcastle-under-Lyme.

## ACUTE DILATATION OF THE STOMACH, WITH ILLUSTRATIVE CASES.<sup>1</sup>

BY H. CAMPBELL THOMSON, M.D., M.R.C.P. LOND.,  
ASSISTANT PHYSICIAN AND PATHOLOGIST TO THE MIDDLESEX HOSPITAL.

ACUTE dilatation of the stomach is characterised by its sudden onset, by the vomiting of enormous quantities of fluid, and by very severe general symptoms, which in the recorded cases have always ended fatally within a few days after the first onset of the disease. The condition was first fully described by Dr. Hilton Fagge<sup>2</sup> who recorded four cases, two of which had come under his own personal observation. Since then a case has been recorded by Mr. Henry Morris,<sup>3</sup> but beyond these the subject does not appear to have attracted much attention. I have during the past three years made post-mortem examinations upon four cases in which death was immediately due to this condition, and I believe that the disease, though of course very uncommon, is not so rare as has generally been supposed, and that probably the difference between the very serious cases and the less severe forms of dilatation, also acute, which not infrequently accompanies severe illnesses, is one of degree rather than of kind. Before referring to the cases recorded by others I will give a brief account of those which have come under my own notice, and I must here acknowledge my indebtedness to Mr. Henry Morris and Dr. Kingston Fowler who have kindly allowed me to make use of the clinical notes of cases which have been under their care. The first case is one in which acute dilatation suddenly supervened upon chronic dilatation, the latter being due to a growth of the pylorus.

CASE 1.—The patient was a man, aged 48 years, who was admitted into the Middlesex Hospital on Oct. 31st, 1899, under the care of Dr. Kingston Fowler. Symptoms had existed for three months before admission, the chief being discomfort after food and frequent vomiting. On admission the patient was found to be considerably emaciated; the stomach was dilated and extended downwards to about an inch above the umbilicus; no splash was obtained. An indefinite tumour could be felt in the epigastrium. The pulse was 84, regular, and the patient, considering the disease he was suffering from, did not appear to be unduly ill, and certainly presented no immediate symptoms of an alarming character. On Nov. 3rd—i.e., three days after admission—the stomach was washed out in order to relieve the vomiting, which occurred at intervals and which in no way differed from that which usually takes place in cases of pyloric cancer. On this occasion 38 ounces were drawn off with a soft syphon tube. The patient expressed himself as feeling relieved by

<sup>1</sup> A paper read before the Royal Medical and Chirurgical Society on Oct. 22nd, 1901.

<sup>2</sup> Guy's Hospital Reports, 1872-73.

<sup>3</sup> Transactions of the Pathological Society of London, vol. xxxiv.

the washing, and the process was repeated on the following morning (the 4th), no vomiting having occurred in the interval. Relief was again obtained and the patient was able to take about half a pint of beef-tea and a very little pudding at mid-day. Suddenly, during the afternoon, a change for the worse took place, which was ushered in by slight hiccough, accompanied by abdominal pain and uneasiness, which the patient attributed to flatulence; at 6 P.M. the pain was considerable; at 8 P.M. he vomited about eight ounces of thick, dark brown fluid; and an hour later (9.15 P.M.) he was very collapsed, with a feeble pulse of 120, a subnormal temperature, and cold extremities. There was now severe abdominal pain, the outline of the stomach was easily seen, and appeared to cover a greater area than formerly; there was no muscular rigidity, but the abdominal walls did not appear to move with respiration. In the face of these acute symptoms it was thought possible that a perforation of the stomach might have taken place. A quarter of a grain of morphia was given hypodermically and hot bottles were put to the feet; no food was given by the mouth. About midnight the patient was very wakeful, but slept after a second injection of morphia. The next day (the 5th) the patient was drowsy but said he had no pain; the pulse was 120 and the abdomen moved slightly with respiration; the lower border of the stomach now reached the umbilicus and a tympanic percussion note could be obtained in the left axilla as high as the fourth rib. Nourishment was given by nutrient enemata and suppositories, which were retained. The general condition remained about the same all day, but towards evening he became more collapsed and at 6 P.M. a hypodermic injection of strychnine was given. The abdomen, however, became more distended. Death took place at 2.55 A.M. on the morning of the 7th. During the acute illness the urine had become very scanty, none at all was passed from 1 A.M. till midnight on the 5th, when a catheter was passed, but only one ounce was drawn off. At the post-mortem examination the contents of the abdomen were almost entirely obscured by the dilated stomach, which was tightly distended with gas and also contained a considerable quantity of dark brown fluid. In shape the stomach was cylindrical, the lesser curvature making a sharp curve, while the greater curvature was rounded and reached a point just below the level of the iliac crest. There was a growth of the pylorus which considerably narrowed the orifice.

This case, then, is an example of acute dilatation suddenly supervening upon a chronic one; owing to the stricture the stomach had, no doubt, for some time had a considerable strain put upon it, and then suddenly acute dilatation set in. Possibly the slight irritation produced by washing out the stomach may have upset the balance or, and what I think is more likely, the growth may have implicated some of the nervous structures in the neighbourhood.

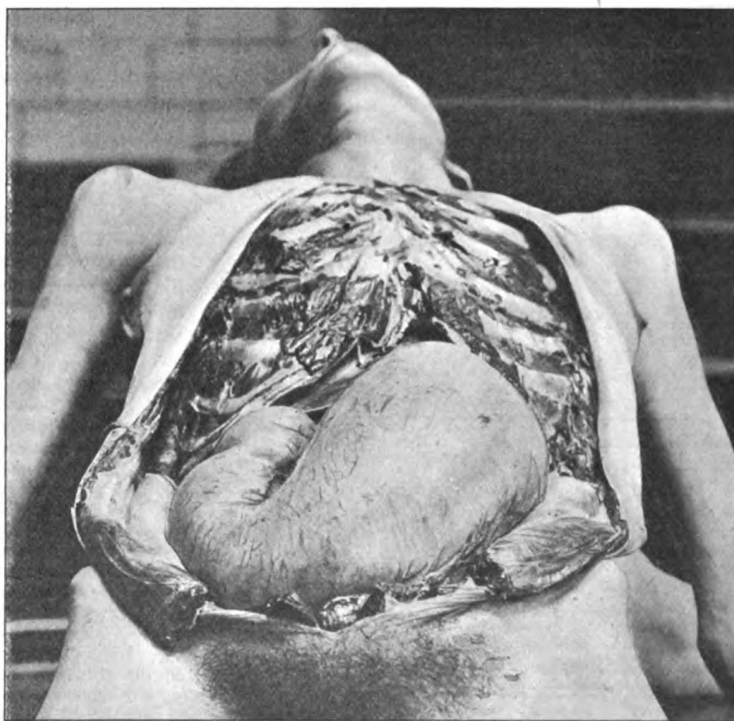
The second case occurred after an exploration of the kidney.

CASE 2.—The patient, a man, aged 26 years, was admitted under the care of Mr. Henry Morris with symptoms pointing to the presence of renal calculus, and on these grounds the right kidney was explored by a lumbar incision on July 30th, 1900; there was nothing of special note connected with the operation. Vomiting commenced a few hours after the operation was performed and persisted almost incessantly up to the time of death, which took place on the evening of August 4th. The temperature fluctuated a little but kept low, and reached 98° F. before death; the pulse was very rapid, varying from 120 to 140 per minute. There was no suppression of urine—on the day of death 33 ounces were passed. At the post-mortem examination, which was made on August 5th, I found the stomach to be enormously distended and of cylindrical shape, the lower end

being on a level with the iliac crest; the first part of the duodenum was also distended. The contents of the stomach consisted of gas and a considerable quantity of thick green fluid. The intestines, with the exception of the first part of the duodenum, were all somewhat collapsed. There was no obstruction of the pylorus and no definite change of any kind was to be observed in the stomach walls. The recent incision into the right kidney was in process of healing and all the structures around it appeared to be healthy; there was some chronic nephritis of both kidneys.

CASE 3.—The patient was a female, aged 40 years, who was admitted into the hospital under my care (in the absence of Dr. Fowler), suffering with deep jaundice, which had come on suddenly with severe pain a few weeks previously. As the diagnosis between gall-stones and malignant disease was somewhat uncertain it was thought advisable to explore the abdomen; this was accordingly done by Mr. J. Murray on April 30th, 1901, the condition proving to be a growth of the head of the pancreas and a distended gall-bladder; the gall-bladder was drained and the wound was sutured. All went perfectly well till May 4th, when the patient passed a restless night and vomited early in the morning of

FIG. 1.



Acute dilatation of the stomach complicating lobar pneumonia and pleurisy.

May 5th. She also became very collapsed, but this may have been partially due to some hæmorrhage which occurred in the wound. The vomiting, however, persisted and large quantities of brownish fluid were thrown up; the urine became scanty and the temperature was subnormal before death, which took place on the 9th. The post-mortem examination showed the stomach to be greatly distended, but chiefly with gas, there being only a small quantity of greenish fluid present. The stomach had the same cylindrical appearances as in the other cases, but was not quite so large as any of the other three which I have met with. There was a hard tumour of the head of the pancreas, but it was not very prominent, and as far as could be seen it had not caused any definite obstruction to the pylorus, nor was any obvious dilatation of the stomach noted when the abdomen was explored.

The next case is one in which acute dilatation occurred as a complication of pleurisy and pneumonia.

CASE 4.—The patient, a female, aged 24 years, was admitted into the hospital under the care of Dr. Fowler on June 26th, 1901. She was first taken ill on the 24th, and previously to that she had been in good health. On admission

there were signs of consolidation over the lower lobe of the right lung and also well-marked signs of pleurisy on the same side. The next morning (the 27th) there were some improvement and no signs of any extension of the disease; later in the day, however, there were pain and friction in the left side and at 1 P.M. the patient suddenly vomited. The vomiting continued incessantly from 1 P.M. on the 27th till 6.30 A.M. on the 28th, and then ceased till 1.5 P.M. the same day, when it re-commenced and continued till death, which took place at 2 A.M. on the 29th—i.e., about 36 hours after the vomiting first began. The vomit was of a dark greenish colour, and large quantities were brought up without any violent effort. The abdomen was very carefully examined on the 28th, but no distension was observed until 3 P.M. of that day. The urine was passed in usual quantities throughout the illness, but it may here be mentioned that at the post-mortem examination the bladder was perfectly empty. At the post-mortem examination the stomach was enormously distended and reached down to the pubes (*vide* Fig. 1). The stomach contained about 35 ounces of dark greenish fluid, and the mortuary attendant informed me that a large quantity had escaped by the mouth when the body was being removed. On relieving the stomach of its contents it rapidly shrank, and in a few minutes it had the appearance of being but little larger than normal, and no one seeing it would have thought that it could have been so enormously dilated only a few minutes before; the stomach walls appeared to be perfectly healthy. The intestines were collapsed, apparently from compression; there were no other abnormalities in any of the other abdominal organs except that the liver was rather larger than normal. In the thorax the lower lobe of the right lung was consolidated and in a condition of red hepatisation; there was no pneumonia elsewhere. Both pleurae were extensively covered with a thick yellow exudation, which on the left side was particularly marked over the base of the lung where it rested on the diaphragm.

some surgical operation, which may or may not be connected with the abdomen. In the case recorded by Mr. Morris, which has already been referred to, the operation consisted in the removal of some necrosed bone from the foot; the patient began to vomit about an hour after the conclusion of the operation and brought up quantities of thin, greenish fluid almost continuously until death took place two days afterwards. The accompanying table shows the associations which have been observed between acute dilatation of the stomach and other lesions and surgical operations.

From this table the cases may be conveniently arranged in the following groups: (1) those in which the dilatation occurred without any apparent cause, and in which, after death, no other lesion was found (Case 2 and Case 3); (2) those in which after death some other lesion has been found (Cases 1, 4, 7, 9, and 10); and (3) those in which the dilatation has followed some surgical operation and in which after death no other lesion has been found (Cases 5, 6, and 8). In two cases there was some surgical interference as well as another lesion found after death—viz., in Case 7, in which a tube was passed into the stomach, and in Case 9, in which the abdomen was explored; and although these operations may have had a certain amount of influence in determining the onset of the condition there can, I think, be little doubt that the predominant factor was the growth in each, which, as will be seen later, produced the effects by impinging surrounding nerve structures. I may here mention another case, of which Mr. Henry Morris has kindly given me the notes, where the dilatation followed an operation. The patient, a thin weakly man, underwent nephrectomy for polycystic disease of the kidney, after which all the symptoms of acute dilatation set in: the abdomen became unsymmetrically distended and great quantities of fluid were vomited until the time of death. Although there can be no doubt as to the nature of the disease, as no post-mortem examination was obtained I have not included it in the table.

TABLE OF CASES OF ACUTE DILATATION OF THE STOMACH.

No. of case.	Author.	Reference.	Sex.	Age.	Morbid conditions found in addition to dilated stomach.	Operation (if any) prior to the onset of symptoms.
1	Hilton Fagge.	Guy's Hospital Reports, 1872-73.	M.	18	Retro-peritoneal abscess communicating with duodenum.	—
2	"	"	M.	30	<i>Nil.</i>	—
3	Miller and Humby.	Transactions of the Pathological Society, vol. iv.; also quoted by Fagge.	F.	48	<i>Nil.</i>	—
4	Hughes Bennett.	Principles and Practice of Medicine; also quoted by Fagge.	M.	26	Empyema.	—
5	Henry Morris.	Transactions of the Pathological Society, vol. xxxiv.	M.	37	<i>Nil.</i>	Operation upon the foot.
6	J. F. Goodhart.	"	M.	29	<i>Nil.</i> , except some œdema of the lungs.	Excision of the knee.
7	Campbell Thomson.	—	M.	48	Carcinoma of the pylorus.	Passage of soft tube into the stomach.
8	"	—	M.	—	<i>Nil.</i>	Exploration of the right kidney (extra-peritoneal method).
9	"	—	F.	40	Carcinoma of the pancreas.	Abdominal exploration.
10	"	—	F.	24	Pneumonia and extensive diaphragmatic pleurisy, the latter chiefly on the left side.	—

Acute dilatation of the stomach may arise without any apparent cause whatever, the patient being, as far as one can tell, in ordinary health up to the time of the onset of acute symptoms. This was so in Dr. Fagge's second case, in which the patient died after three days' acute illness, and after death no other morbid condition was found except that of the stomach. Dr. Fagge considered that the actual process of enlargement of the stomach is more gradual and is in the end succeeded by sudden symptoms of great severity; but although this is sometimes the case—as, for instance, in the case I have recorded, where there was obstruction to the pylorus, and possibly also in the case in which there was a tumour of the pancreas—there is no reason whatever to believe that there was any slow dilatation previous to the acute symptoms in the other two cases.

In many cases (*vide* Table) some other morbid condition is found in addition to the dilated stomach, and in other instances the dilatation appears to follow immediately upon

There is yet another group of cases in which in debilitated subjects the ingestion of a large quantity of badly masticated food appears to have been the exciting cause. In a case mentioned by Dr. Walter Broadbent<sup>4</sup> a man, after tramping about the country for two days without food, and who was therefore very exhausted, partook of a large meal of roast pork, after which he was seized with abdominal pain and vomiting, which in spite of treatment terminated fatally in two days. After death the stomach was found to be enormously dilated, the lower border reaching nearly to the pubes. In a case recorded by Dr. W. H. Dickinson,<sup>5</sup> dilatation occurred in a child suffering from fatty degeneration of the heart, and after death the stomach, which was greatly distended, was inflated with gas and contained a large quantity of meat and potatoes, which were in lumps with sharp angles and edges, just as they had been cut by the nurse.

<sup>4</sup> Medical Magazine, July, 1901.

<sup>5</sup> Transactions of the Pathological Society of London, vol. xlii.

The following is a summary of the symptoms and post-mortem appearances:—

**Distension of the abdomen.**—As might be expected, the distended stomach gives rise to a swelling of the abdomen; the swelling is not uniform, but fills chiefly the left half and lower part of the abdomen, the right hypochondrium sometimes appearing to be flattened. This swelling, which is of diagnostic value, is not, however, quite constant, for in the case recorded by Mr. Morris it is stated that the abdomen was retracted, and after death, although the stomach was enormously dilated and occupied almost the whole of the abdomen, its anterior surface was said to be flattened. No doubt the abdominal swelling varies with the vomiting, especially in those cases where there is a large quantity of fluid in the stomach, as in one of Dr. Fagge's cases, where the swelling disappeared after a quantity of fluid had been removed by the stomach-pump. Peristaltic waves of contraction do not seem to have ever been observed in these cases, which, I think, rather opposes the theory suggested by Pepper and Stengel, that spasmodic contraction of the pylorus is the cause of the dilatation.

**Vomiting.**—Vomiting appears to be a constant symptom and usually large quantities of brownish or greenish fluid are brought up. The fluid is usually thin and watery and is generally vomited without causing the patient any great effort or distress.

**Urine.**—As a rule the urine becomes very scanty and almost entirely suppressed for the last 24 hours before death. In seven cases in which the condition of the urine is mentioned there was more or less suppression in five, and in three of these it was almost absolute during the last 24 hours of life; in two it is mentioned that a catheter was passed under the idea that there might be retention, but only a few drops of water were drawn off.

**General symptoms.**—The general symptoms are those of collapse; the pulse is small and very rapid, the respirations are frequent, and the temperature is low, usually subnormal. There is also great thirst, which is probably accounted for by the excessive vomiting of fluid.

**Condition of the stomach.**—The appearance of the stomach as seen after death is very characteristic; it is like a tightly distended cylinder, shaped like a V with one limb shorter than the other. The angle between the two limbs formed by the lesser curvature is a very sharp one (*vide* Fig. 2). The

FIG. 2.



Diagram of shape of stomach in acute dilatation.

walls of the stomach, though so much distended, do not after the stomach has collapsed appear to be much thinned, and, moreover, they retain their elasticity, as shown by the vomiting during life and by the contraction which occurs after death as soon as the contents are let out. There are, in fact, no definite abnormalities to be observed in connexion with the stomach walls.

**Condition of the intestines.**—The condition of the intestines varies. Usually they are collapsed and have the appearance of having been compressed by the distended stomach; sometimes parts of them may be distended, as in Dr. Fagge's first case, in which there was some distension of the cæcum and ascending colon.

The immediate cause of acute dilatation of the stomach

probably depends upon some disturbance of the nervous system which gives rise to paralysis of the muscular walls and which also frequently causes excessive secretion into the stomach cavity. The only other explanation which seems within the bounds of possibility is that the distension might be caused by a rapid production of gas within the stomach. This mode of origin was actually suggested in one case in which the patient was known to have drunk two bottles of effervescing lemonade not very long before the acute symptoms began; but Dr. Hughes Bennett, under whose care the case was, rejected the idea and preferred to leave the cause unexplained rather than to suppose that gas sufficient to distend the stomach so enormously could have been generated by two bottles of lemonade. Neither is there, as far as I can find, any evidence whatever that there has been any undue putrefaction taking place in the stomach in any of these cases and, moreover, this view of the causation would not explain the occurrence of excessive secretion.

In considering the part which the nervous system may take in the production of acute dilatation there are two processes to be taken into account—viz., (1) the dilatation and (2) the increased secretion, and the question at once arises concerning the relationship of these two processes to each other; do they take place independently or is one dependent in some way upon the other? The inclination hitherto seems to have been to look upon the increase of secretion as the primary condition and to regard the dilatation as secondary and immediately dependent upon it. This appears to have been the view taken by Dr. Fagge when, in speaking of his first case, he says that the stomach was paralysed from over-distension and unable to rid itself of its burden. Mr. Henry Morris also took this view; he considered that both dilatation and vomiting were due to excessive secretion, and on these grounds proposed that the disease should be called "acute gastrorrhœa." In support of this view Mr. Morris quoted Moreau's experiments which showed that after a loop of intestine had been isolated by ligatures, and all the nerves passing to it along the mesentery cut, a paralytic secretion took place, and the intestine was found to contain a quantity of fluid which on chemical examination proved to be a very dilute intestinal secretion. Dr. P. H. Pye-Smith and Sir T. Lauder Brunton<sup>6</sup> have shown that the regulating influence conveyed by the nerves divided in Moreau's experiments arises from some of the ganglia in the solar plexus. As a result of Mr. Morris's paper Dr. J. F. Goodhart<sup>7</sup> brought forward notes of all the cases of dilated stomach not due to pyloric obstruction observed in the post-mortem room of Guy's Hospital from 1875 to 1882, and in the light of general information obtained from these Dr. Goodhart concluded that "paralysis of the viscus is, if not the determining cause, at any rate an accompanying condition." It is, of course, naturally very difficult to establish the exact relationship between the two conditions, but although they are so often present together, and produced by the same underlying cause, I think that the available evidence shows that they are at any rate distinctly separate processes and that the dilatation is not the mere mechanical result of excessive secretion. In some cases, for instance, there is very little fluid present, the stomach being in such cases almost entirely blown out by gas.

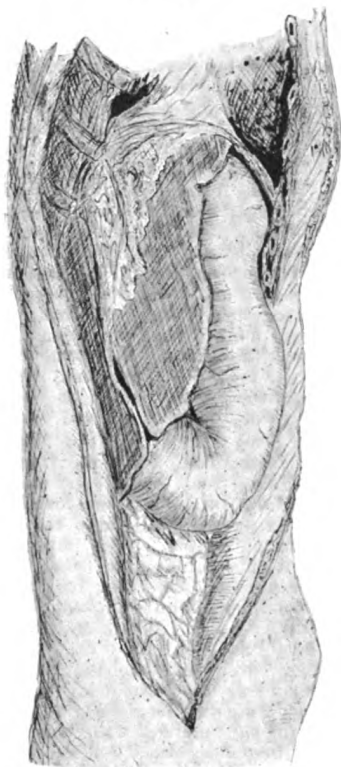
I have recently had an opportunity of observing a very interesting case in which the stomach appeared to be in an early stage of acute dilatation, and in this instance there was no fluid at all, and only a very slight trace of semi-solid, almost completely digested food. The patient was an old woman who died almost immediately after the conclusion of a severe operation upon the lower jaw, and at the post-mortem examination the stomach was distended with gas and had the cylindrical sausage-shaped appearance which is so typical in the more advanced cases. The appearance of the stomach in this case is seen in Fig. 3, which is taken from a sketch made at the time. The stomach, though much distended (it measured about nine inches in length in the longer limb and about seven inches at its greatest circumference), was nothing like the size which the others I have met with reached; but naturally there must be an early stage of the condition, and this case, I believe, is an example of such. This case, then, as far as it goes, tends to show that the distension may take place

<sup>6</sup> Reports of the British Association for the Advancement of Science, 1874 and 1875.

<sup>7</sup> Transactions of the Pathological Society of London, vol. xxxiv.

independently of the secretion, and some information regarding the relationship between the two processes may, I think, be obtained from the consideration of cases of chronic dilatation which depend upon pyloric obstruction. In many of these there is a very great secretion, just as there is in the acute cases. Osler and Macrae,<sup>8</sup> for instance, mention a case of dilatation of the stomach due to malignant growth of the pylorus in which on two occasions the stomach was

FIG. 3.



Appearance of a stomach which was apparently in an early stage of acute dilatation.

washed and emptied as thoroughly as possible, and for 48 hours afterwards the patient was fed by the rectum and all nourishment by the mouth was stopped. At the expiration of this time, on the first occasion 545 cubic centimetres of fluid were drawn off, and on the second occasion 500 cubic centimetres. In such cases as this the increased secretion is obviously secondary to the dilatation, as it also frequently is in cases of chronic dilatation which are not due to obstruction, and it seems therefore that the increased secretion is an accompaniment of, or a result of, the dilatation rather than a cause of it. The two conditions, there is little doubt, are independent processes which come into action separately or in combination, and it is most likely that their relative importance varies. There can be no doubt that excessive secretion, when present, adds greatly to the gravity of the situation, but there does not seem to be any clear proof that excessive secretion can act as the dilating force unless there is at the same time some paralysis of the stomach walls. The stomach derives its nerve-supply from the vagi and the splanchnic nerves; stimulation of the vagi gives rise to peristaltic movements, while stimulation of the splanchnic nerves brings the movements to a standstill. Sir Michael Foster,<sup>9</sup> in speaking of the nervous mechanism of the alimentary canal, says: "We may, therefore, speak of fibres inhibitory of peristaltic movements of the stomach and intestines as passing from the spinal cord through the splanchnic nerves and reaching those organs through the abdominal plexuses." With regard to the nervous mechanism of secretion Sir Michael Foster says: "It has been suggested that while impulses reaching the stomach

along the vagi excite secretion those reaching the stomach along the sympathetic nerves inhibit it; but this has not been satisfactorily proved."

Dilatation of the stomach can probably be produced by the local interference of nerves of the stomach<sup>10</sup> or it may arise after a shock affecting the general nervous system. Examples of the latter are seen in cases such as that recorded by Mr. Henry Morris, where the dilatation followed an operation upon the foot, while examples of local interference are shown where the disease has followed some lesion in the neighbourhood of the stomach, and it is interesting to note how in Case 9 of the preceding table the onset of the condition appeared to coincide with the spreading of an acute pleurisy to the base of the left lung, which must be in close relationship to the nervous system of the stomach.

As cases of acute dilatation have followed closely upon operations it is necessary to inquire into the possibility of the anæsthetic having some influence in their causation. Mr. Morris considered this question fully with regard to his case and came to the conclusion that the anæsthetic was not to blame, and examination of the other cases does not show any direct evidence that the condition can be traced to this cause; but it would seem quite possible that under certain conditions an anæsthetic might influence the dilatation through its widespread effects upon the nervous system.

Acute dilatation of the stomach though of course very much more rare, is probably closely allied in its causation and nature to the paralytic distension of intestines which frequently occurs after severe abdominal operations, and also in inflammatory conditions of the peritoneum. At present there seems no adequate explanation as to why the intestines should be distended in some cases and the stomach in others, though most likely this difference depends upon differences in reaction to stimulation of different nerve ganglia.

I think that acute dilatation of the stomach, to some extent, is not so rare as supposed, and that if looked for all degrees of severity may be found between the slighter forms of dilatation, such as, for instance, are not infrequently noted in acute specific fevers, and the most severe and rapidly fatal cases such as I have described to-night. Treatment of the recorded cases seems to have been of no avail in checking the disease. The most obvious indication in these very severe cases is to relieve the distension of the stomach by means of a tube, but unfortunately, so far, this does not seem to have been followed by any permanent improvement, although it must be said that with the exception of one of Dr. Fagge's cases, in which temporary relief was produced, this mode of treatment does not seem to have received any extensive trial. All nutrition should be administered by the rectum, and the tendency to collapse met by hypodermic injections of strychnine. Some of the more serious symptoms are probably produced by the loss of the large quantities of fluid which are secreted, and this loss should be counteracted by injection of saline solution into the rectum or by transfusion. Lastly, it must be remembered that possibly on some occasions the condition may be a more general one than seems at first sight and that the dilatation of the stomach may be one of the local manifestations of general collapse.

† Queen Anne-street, W.

## THE ACUTE RETRO-PHARYNGEAL ABSCESS OF INFANTS.

By S. VERE PEARSON, B.A., M.B., B.C. CANTAB.

THE acute post-pharyngeal abscess of infants is not a common complaint, but it is none the less important. This importance lies in the fact that if undiagnosed the case most frequently ends fatally. I have met with two cases of this disease in which tracheotomy was performed for supposed laryngeal diphtheria, one of which proved fatal; in the other, afterwards correctly diagnosed, the patient recovered. I can

<sup>10</sup> Paralysis of the muscular coat of the stomach limited to the pyloric portion, and preventing the propulsion of food into the duodenum, has been stated to be a cause of dilatation, and Dr. Wilson Fox ("Diseases of the Stomach," p. 215) quotes a case recorded by Andral where there was extensive ulceration of the pyloric region without obstruction and yet extreme dilatation of the stomach. Traube attributes such dilatation to destruction of the branches of the pneumogastric nerve.

<sup>8</sup> Cancer of the Stomach, p. 81.

<sup>9</sup> Text-book of Physiology, Part II., p. 491.

relate two more fatal cases, both of which were admitted into hospital with, and died from, broncho-pneumonia secondary to an undiagnosed post-pharyngeal abscess which had broken down. In one case the condition was recognised before death, but the patient was already extremely ill and the post-pharyngeal tissues had sloughed. In the other case, which occurred at the earliest period of infancy at which I have known suffering from this complaint to be experienced—namely, seven weeks—the abscess was not discovered until the necropsy revealed it. Irving Snow,<sup>1</sup> who recently published three cases, makes a similar statement—viz., that retro-pharyngeal abscess unrecognised and untreated usually ends in death. And Blackader<sup>2</sup> says that the notable fact with which one is impressed on reviewing the literature is the frequency with which these cases remain undiagnosed or receive faulty diagnoses. Yet the diagnosis is not as a rule difficult. The disease is frequently overlooked because its occurrence is not thought of. When diagnosed the prognosis is fairly good. For these reasons, then, I feel that this article, dealing with a few of the striking features of some cases which came under my personal observation during 1900, together with one or two details of some additional cases treated at the Shadwell Children's Hospital during the year 1899, may not be without interest, and possibly, I hope, not without some practical result in leading to a less frequent oversight of a disease which, although admittedly not common, is not, I believe, so rare as is generally thought.

The text-books on the diseases of children briefly describe the symptoms likely to occur; hence it will be unnecessary to enunciate them fully. I will lay stress upon those of practical importance only. The common type of case presents the following picture. An infant under two years of age is brought, the complaint being that during the course of the last few days the child's voice has become gradually muffled, that there has been difficulty in sucking, or apparent pain on swallowing, that the child has been restless, has loss of appetite, and has been constitutionally ill. In addition to this it is remarkable in my experience how frequently these troubles have been preceded, or are actually accompanied, by a purulent nasal discharge. Very often at the time that the infant is first seen there is considerable obstruction to respiration, sometimes accompanied by much recession. Such a case may easily be mistaken for laryngeal diphtheria, especially when it is found that some glands in the neck are tender and enlarged, and upon examination of the throat the tonsils appear red and inflamed and possibly covered with a mucoid secretion. But it will be observed that the voice is different from that in acute laryngitis, and there is not that characteristic croupy cough so often present with laryngitis. Also on more careful examination it will be noticed that one side of the neck is fuller than the other, and when looking at the throat it may be noticed that one tonsil and the corresponding posterior pharyngeal wall may appear to be pushed slightly forwards. I say this may be noticed, for it is by no means generally easy to make sure of it in an infant's throat, always rather difficult to examine. But there is an easy method for certainly diagnosing this condition, and that is by digital palpation of the post-pharyngeal region. Too much stress cannot be laid upon the importance of making a digital examination in all cases where symptoms suggest such a condition. A very small amount of education is required in order to detect a small swelling and the most inexperienced can diagnose a well-marked abscess in this region. The only difficulty which arises is the difficulty of making sure that the swelling has true fluctuation. In one of my cases the swelling was fairly big and quite elastic to the feel, but subsequent events proved that it did not contain pus. It is said to be very rare for the swelling to become at all large without suppuration having occurred, and this has certainly been my experience.

There is no point with regard to etiology upon which I wish to lay any stress. It seems to be generally admitted now that the cause of the abscess is acute post-pharyngeal suppurative adenitis. The frequency of an associated nasal discharge is of interest in this connexion. I regret to say that I was unable to carry out bacteriological examinations in the cases which came under my care. In one case, however, I had a cultivation made from the nasal discharge and Klebs-Löffler bacilli were found. And in another case, referred to below, pus evacuated from the abscess underwent a bacteriological examination, the report of which was

that "very plentiful chains of streptococci" were found. The cases with which this article deals are, of course, quite distinct clinically as well as etiologically from the chronic retro-pharyngeal abscess associated with spinal caries.

I now come to a very important part of the subject—namely, treatment. If the constitutional symptoms are slight and the swelling is small an expectant line of treatment should be followed. Under these circumstances the swelling may soon disappear, any local condition such as rhinitis having been attended to and a mild purge given. In all other cases, however, operative measures are indicated. Except in the worst cases immediate operation is not necessary. Very often an infant will be in a much better condition for operation by waiting for a short time, during which the swelling can be re-examined to see whether there is any chance of its being non-suppurative and subsiding. The only danger associated with this postponement is the possibility of an increase in the dyspnoea. Infants are liable to a sudden increase of any obstructive dyspnoea, and probably this is due to some spasm added to the primary cause. But my experience has been that not only is the constitutional condition of the patient better, but also the dyspnoea has become less marked, after about 24 hours' treatment; and this treatment should consist in the administration of a purgative and perhaps a simple saline mixture, careful feeding, together with a few small doses of brandy. If the dyspnoea is marked, and in any case, a steam kettle with a curtain over the head of the cot (not a steam tent) is useful, and a drop or two of antimonial wine added to the saline mixture often has the effect of counteracting the spasmodic element of the dyspnoea and easing the respirations.

Now as to the method of operating. I strongly advocate opening the abscess from behind the sterno-mastoid by Hilton's method. In an infant whose condition is already unhealthy it is extremely undesirable for him to swallow daily a certain amount of pus. It is impossible to teach an infant not to do this. And after operating through the mouth, however careful one is in irrigating the mouth and pharynx, it is impossible to prevent the swallowing of some of the purulent discharge which must persist for at least a few days. At the time of the operation it is of course possible by careful attention to the patient's position to prevent the pus from entering the trachea, when the abscess is opened through the mouth. This is a very real danger, considering the readiness with which a broncho-pneumonia is set up in such a patient, and it constitutes a very grave objection to that method of operating. And another objection is that these patients are always rather difficult to treat from the anaesthetist's point of view. It is undesirable in the case of either method to do without an anaesthetic, and the difficulties, and more particularly the dangers, are much increased, in my opinion, when the abscess is opened by the internal method—i.e., through the mouth. The actual operation in the case of opening the abscess externally is often quite easy and is generally not very difficult. Moreover, it seems to me that the after-treatment of cases treated by the external method is entirely satisfactory.

Now with regard to the operation itself there are one or two manipulative details to which I will call attention. The position of the incision should be immediately behind, and parallel to, the sterno-mastoid; its centre should be as nearly as possible on the same level as the centre of the swelling behind the pharynx, or a little below this. Towards the bottom of the wound the spinal accessory nerve must be avoided. Having used a knife to cut through skin and fascia, the posterior edge of the sterno-mastoid being carefully exposed and the muscle pulled slightly forwards, the knife should be abandoned in favour of a blunt dissector and a pair of dissecting forceps. By the time this stage of the operation has been reached it may have been necessary to remove one or two slightly enlarged glands situated behind the sterno-mastoid. From this time onward the operation consists in a careful separation of the structures until the prevertebral region is reached. The landmarks are the transverse processes and the plane of the anterior surface of the vertebral bodies. Keep well back, feel with the finger for these landmarks, and there will then be no danger of injuring the jugular vein or cervical sympathetic, the only two structures likely to be interfered with. The patient should never be at all deeply under, but at this stage of the operation he should be allowed to come round partially. Then matters are much facilitated by introducing one finger into the mouth and a finger of

<sup>1</sup> Archives of Pediatrics, January, 1901.

<sup>2</sup> Ibid., 1889, p. 80.

the other hand into the wound. By this means the exact limits of the abscess cavity can be made out. Then a fairly fine-pointed blunt dissector or similar instrument can be passed along the front of the finger in the wound and the abscess sac pierced. The pus flows out readily when the opening is made larger by means of a pair of sinus forceps guided into the cavity by the instrument already introduced. It is important to remember that the finger of one hand has been introduced into the mouth, and this should not touch the wound until it has been re-sterilised. Irrigate the cavity once or twice with some antiseptic solution. Then a very small drainage-tube should be introduced right to the greatest depth of the wound and perhaps a small strip of gauze around this superficially. One or two stitches are then put in to bring the edges together above and below the tube and an ordinary antiseptic dressing is applied. With regard to after-treatment there is nothing very much of importance. I have found it best to leave the small drainage-tube in for about 48 hours or three days, to irrigate the wound by gently syringing it with 1 in 4000 perchloride or biniodide solution for the first few days and after that with a weak solution of iodine. It is best to dress it twice within the first 24 hours of the operation, but after that once daily is sufficient. After the tube has been removed a very thin plug of gauze should be introduced and every other day slightly shortened. Some discretion is required in carrying out this detail; the point is to strike a mean result between getting a re-accumulation of pus and a long-lasting callous sinus. In my experience the latter error is by far the commoner. Some indication as to the rate of healing of the sinus is given by stating that in about three weeks from the time of the operation the wound should be healed. I feel sure that a rigorous attention to the details of antiseptics is one of the great aids in doing away with the formation of a callous discharging sinus.

In the following cases points illustrative of any peculiar difficulties which may arise will be emphasised. Otherwise only the briefest details of each case will be given.

CASE 1.—The patient was a male, aged four months; he had an abscess on the left side. Besides presenting most of the usual symptoms, including a purulent nasal discharge, he had considerable head retraction on admission and was very much cyanosed. The operation in this case was a very simple one, as the abscess was a large one and was found inclined to point not far beneath the surface just behind the sterno-mastoid. Recovery was the result, the wound being perfectly healed on the twentieth day.

CASE 2.—The patient was a female, aged six months; she had an abscess on the left side. Nasal discharge was present. The onset appears to have been somewhat gradual, it being stated by the mother that the patient had been ill for nearly a month. The chief complaint was that the infant had been liable to alarming fits of coughing with blueness. External operation was performed. Recovery ensued, the wound being quite healed on the fifteenth day.

CASE 3.—The patient was a male, aged two years; he had an abscess on the right side. He had been ill for a fortnight before admission. Nasal discharge was present, very profuse and purulent. External operation was performed. Recovery ensued, the wound being healed on the twenty-eighth day.

CASE 4.—The patient was a male, aged six months; he had a swelling on the left side. Nasal discharge was present. A few adenoid vegetations were also present. The small swelling disappeared without surgical treatment within a week.

CASE 5.—The patient was a male, aged 10 months; he had a swelling on the right side. In this patient Klebs-Löffler bacilli were cultivated from the purulent nasal discharge. There was rather more marked cervical adenitis present than in many of the cases. The expectant line of treatment was followed for three days, at the end of which time the swelling had become much larger and more elastic. But at the operation no pus was found. The operation was somewhat difficult for several reasons. The patient took the anæsthetic very badly and at one time suddenly stopped breathing and artificial respiration had to be performed. Also it was difficult to make sure whether or not a somewhat tense wall of the supposed abscess cavity had been pierced or whether the probe, the point of which could easily be felt by a finger in the mouth under the mucous membrane at the back of the pharynx, was tracking in the tissues immediately outside the capsule. In the end a sharp-pointed probe had to be used to make certain of this. This is the only case in

which a sharp instrument was used. The temperature in this case, which in nearly all cases is considerably raised for a short time, ran a very irregular course, at times becoming very high (e.g., 106° F.). The child very soon afterwards developed broncho-pneumonia and died five days after the operation. During this time the swelling became considerably smaller. Throughout the patient took food so badly that he had sometimes to be fed by means of a nasal tube. At the post-mortem examination the diagnosis was confirmed, a small swelling was found behind the pharynx, but no pus, and extensive broncho-pneumonia. The case was acute; the onset was rapid, the history of illness and nasal discharge only dating from three days before admission. It seems probable that the whole disease, retro-pharyngeal adenitis and broncho-pneumonia, was secondary to an acute diphtheritic rhinitis.

CASE 6.—The patient was a male, aged 11 months; he had an abscess on the left side. There was no nasal discharge. External operation was performed. The patient was discharged cured, with the wound firmly healed, on the nineteenth day.

CASE 7.—The patient was a male, aged seven months; he had an abscess on the left side. Nasal discharge was present. External operation was performed by the house surgeon who preceded me at Shadwell. In this case the internal jugular vein was wounded and this necessitated ligaturing above and below. At the end of five weeks the patient was discharged constitutionally fit, but still with a small discharging sinus. This healed satisfactorily before very long, the child being watched as an out-patient.

CASE 8.—The patient was a female, aged 11 months; she had an abscess on the left side. There was no nasal discharge. External operation was performed; recovery ensued. This patient was operated on by the house surgeon who preceded me towards the end of February. She also left the hospital with a small discharging sinus, and at the end of May I had a note with regard to her case that the small sinus was still discharging and rather deep. I was about to make arrangements for the re-admission of the patient with a view to scraping the sinus, but somehow I lost sight of her. She disappeared from the out-patient department and so I presume the sinus must eventually have healed.

CASE 9.—The patient was a male, aged eight months; he had an abscess on the right side, but encroaching much towards the opposite side. Nasal discharge was present. This patient was originally admitted for laryngeal diphtheria. I had to perform tracheotomy on the night of admission. He was an extremely weak and wasted child and it seemed quite improbable that he would recover from the diphtheria. He did, however, but unfortunately he was one of those cases in which there is extreme difficulty in leaving out the tracheotomy tube. He was in the hospital for many weeks, during which time he was on several occasions on the point of death from spasmodic dyspnoea. Eventually he developed a nasal discharge and post-pharyngeal abscess in addition to his other troubles. This abscess was opened by the resident medical officer by the internal method. The patient recovered from this complication. In the end, however, he died from a dyspnoic spasm added to his marasmic condition.

The four undiagnosed cases referred to at the beginning of this article presented no further points of particular interest beyond those already mentioned. I will now add brief notes of eight more cases. These did not, like the preceding ones, come under my personal observation, but are cases treated at the Shadwell Children's Hospital during the year 1899.

CASE 1.—The patient was a male, aged seven months; he had a swelling on the right side. No note is made with regard to nasal discharge in this nor in several of the following cases; but presumably where none is mentioned no discharge was present. This was a weakly patient who had been ill for two months. For a short time previously to admission he had been refusing food. On admission there were swollen glands in the neck and a swelling in the right post-pharyngeal region. This subsided without operative treatment and the patient was shortly afterwards discharged cured.

CASE 2.—The patient was a male, aged one year; he had a swelling on the right side. He had been ill for 10 days; there had been a nasal discharge for one week. On admission the chief complaint made by the mother was swelling of the neck and difficulty in swallowing. The external operation was performed and a satisfactory recovery ensued.

CASE 3.—The patient was a male, aged three years; he had a swelling on the left side. This is the oldest patient of the series, none of the others being over two years old. The case also presented a more chronic form than is usual. Possibly it was of a tuberculous nature. The onset was gradual during 10 weeks. The child was well nourished. There was no rise of temperature. There were swelling, dyspnoea with recession, and stridor. The external operation was performed. A large collection of pus was found. The patient was discharged cured on the fourteenth day after admission.

CASE 4.—The patient was a female, aged one year; she had a swelling on the left side. She was very ill on admission. She had a very irregular and high temperature. Some broncho-pneumonia was diagnosed. External operation was performed but no pus was obtained. A few days later the patient died. At the post-mortem examination purulent meningitis, pulmonary collapse, and a sloughing post-pharyngeal wall were found.

CASE 5.—The patient was a male, aged two years; he had an abscess on the left side, the onset extending over two weeks. Difficulty in swallowing solids and some difficulty in breathing were complained of. The patient was a well-nourished child. External operation was performed. Recovery ensued and the patient was discharged to the convalescent home on the eighteenth day having only a superficial wound. The temperature in this case was never above 100° F.

CASE 6.—The patient was a female, aged 14 months; she had an abscess on the right side. She had had swelling of the neck for 10 days and dyspnoea for one week previously to admission. External operation was performed. The patient was discharged cured on the twenty-eighth day.

CASE 7.—The patient was a male, aged seven months. In this case there was also some suppurative adenitis of the cervical glands, so that at the operation (the external method was used) two distinct cavities were opened. The one behind the pharynx was, so far as could be made out, unconnected with that in the neck. The patient died the same night, the temperature rising just before death to 109° F. At the post-mortem examination broncho-pneumonia was found.

CASE 8.—The patient was a male, aged seven months; he had an abscess on the left side. Swelling and difficulty in breathing were present for four days previously to admission. He was a well-nourished child. External operation was performed. The pus contained "very plentiful chains of streptococci." Satisfactory recovery ensued. In this case a few days after the operation it was noticed that there was slight narrowing of the left palpebral fissure with contraction of the left pupil. The pupils reacted to light. This condition passed off in about a week.

I am greatly indebted to Mr. R. W. Parker and Mr. L. A. Dunn, surgeons to the East London Children's Hospital, for their kindness in allowing me to make use of those of their cases which came under my own observation and treatment during my term of office as house surgeon to the hospital, and also for leave to abstract a few details from the notes of some cases which were treated at the hospital in 1899.

Brompton Hospital for Consumption, London, S.W.

## A CASE OF COMPOUND FRACTURE OF BOTH JAWS.

By H. WEIGHTON, M.B., C.M. EDIN.

IN June last a young man in descending a steep hill on a bicycle without an efficient brake lost control of the machine, and being unable to round the turn of the road at the foot of the hill was thrown with great force against a stone pillar. He was found at once by a passer-by and was removed to his home, luckily no great distance from the scene of the accident. On examination shortly afterwards the lower part of his face was found to be much swollen but it presented no external wound. There was a complete fracture of the lower jaw near the symphysis and also a detachment of a part of the alveolus in front containing three teeth. There was likewise a fracture of the upper jaw at each side in the region of the canine teeth, but with little displacement or deformity. The whole premaxilla could be

easily moved about. He suffered also from slight concussion which, however, passed off in a few hours. The fractures were treated temporarily by means of wire between the teeth on each side, the whole being fixed with an external poroplastic splint fitted to the chin and a four-tailed bandage. Next day I procured the assistance of Mr. H. P. Friend, surgeon dentist, who took a mould of both upper and lower dental margins and constructed an inter-dental gutta-percha splint. A hole was made near the centre of this, through which the patient could be fed. This after manufacture was found to fit very exactly, and the teeth were fixed in the sockets of the splints by means of a lining of soft gutta-percha. The poroplastic cap was reapplied to the chin and fixed in was position by means of a piece of elastic bandage carried over the head. The patient was fed on milk, beef-tea, &c., through a piece of tubing, and the whole mouth was rinsed out very frequently with dilute Condy's Fluid. With a little practice the patient was able to drink out of a cup or tumbler in the ordinary way without much difficulty. After five weeks' time the splint was removed and the fractures were found to be firmly united, with the exception of the fractured alveolar margin of the lower jaw, which ultimately became a sequestrum and had to be removed. The patient is now able to take ordinary food and there is no outward deformity.

Incidentally the patient brought to my notice soon after the removal of the splint the fact that in swallowing liquids a small quantity always regurgitated through the nose. This on examination was found to take place from a small fissure running antero-posteriorly in nearly the centre and near the posterior edge of the hard palate. It is about half an inch long and in width it just admits the ordinary surgical probe. How this complication has arisen it is somewhat difficult to imagine, and it is rather curious that it should make itself manifest just five weeks after the accident. It is almost certain that no foreign body could have penetrated the roof of the mouth at the time of the accident. A probable explanation may be found in the fact that a fracture of the hard palate had occurred which for some reason had not united at this spot, thus leaving a fissure in the bone. It is then possible that the soft structures over the fissure would become split during the healing process of the bone, and a complete communication between the mouth and nose become established.

Barnard Castle.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### A CASE OF URTICARIA FOLLOWING IMMEDIATELY ON WASP-STING.

By T. WILSON PARRY, M.A., M.B. CANTAB., &c.

IN the late afternoon of Sept. 4th, 1901, I was summoned urgently to the case of a boy, aged 15 years, who had been stung by a wasp, and, my messenger added, "it was flying all over him." Being accustomed to eccentric messages from excited villagers who are anxious about their sickly friends I paid little heed to the nature of the message, though, of course, going at once to see the patient. I found him lying in bed with a red face, swollen lips, and much swelling, too, below the eyes. He was scratching himself with great vehemence and an examination of his trunk, arms, and legs revealed as typical an urticaria as one could ever wish to see. The history of the case was as follows. He had just finished his tea and was washing his hands when a wasp, which was in a somewhat lethargic condition, dropped into his basin and stung him on the ring finger of the left hand. Before he had finished his ablutions he was obliged to run to the closet so that he might be able to scratch himself to his heart's content, as he told me his whole body was in a terribly irritable condition. While examining him he complained of sickness and immediately vomited the contents of his tea. His temperature was 96.8° F. and his urine, which he passed about two hours after, was loaded with phosphates and contained also a trace of albumin. I gave him a simple mixture of salicylate of soda, carbonate of

soda, and bismuth, and the following morning the rash had entirely disappeared and, with the exception of the swollen finger that had been stung, he felt himself ready for his work again.

Two points of interest seem to attach themselves to this case. Firstly, from both personal observation and also from reference to the literature on the subject it would appear that general eruptions are exceedingly rare after wasp-stings; and secondly, the suddenness of the onset of the rash after the sting had been inflicted is also peculiar and seems to be indicative of a hypodermic injection of some toxic substance which might have been imparted with the sting. May it not be within the range of probability that there is in existence an urticaria-producing bacillus which may take its place among those myriads of bacilli which, though at present "undiscovered," are markedly suspected of being the causation of certain so-called "idiopathic" affections?

Youghreave, Derbyshire.

#### A CASE OF TOBACCO-POISONING IN A CHILD.

By JOHN HAWKES, M.D. ST. AND.

ON Sept. 4th, about 6 P.M., a child was brought to my house by her father and mother who stated that she had just taken a "deadly poison" but of the nature or description of the poison they could tell me nothing. She was two years old, of good physique, and was well nourished. Her face was flushed, her body was very warm, and her pupils were dilated to about twice their natural size. She was unconscious and entirely free from pain; her limbs were flaccid and her pulse was small and weak. Her parents, intelligent persons, were profoundly agitated. I at once administered an emetic of one drachm of ipecacuanha wine in half an ounce of water and despatched the father to procure the vessel containing the poison which she had taken, following up the emetic with small draughts of warm water, which procured emesis in about 10 minutes, the quantity of fluid vomited being about a teacupful and consisting apparently of tea. The man meanwhile returned with a half-gallon tin labeled "Poison" and containing a strong decoction of tobacco which he used in his business as a horticulturist. He also brought a pannikin of a dark viscid fluid of the consistence of treacle into which the child had dipped her fingers and then placed them in her mouth. She was still unconscious and had passed a liquid motion. I accompanied her home and in about an hour the pupils regained their normal size and the warmth of the body and the flushing of the face had sensibly diminished. I then administered a few drops of brandy diluted with water, having previously given some warm milk which she retained. About this time she faintly recognised her mother and recovered slight consciousness; in another hour she was rather more improved and was apparently sleeping when I left her, with instructions for the milk to be continued through the night and a little brandy to be given if any signs of coldness or collapse ensued. She passed a tranquil night and on the next morning I was gratified to find her completely recovered and playing about in her usual health.

Tobacco poisoning, though not rare in adults, is, I believe, very unusual in so young a child. Its first action, according to Sir Benjamin Brodie, is on the heart; secondarily, it causes convulsions and insensibility of the pupil. These were absent, but the mother noticed that in shifting the child the little one was quite limp. Probably the quantity taken was not sufficient to cause any more serious symptoms.

Shanklin, Isle of Wight.

**CARDIFF INFIRMARY.**—The new women's ward at the Cardiff Infirmary was opened on Oct. 15th. The ward contains 16 beds and it is estimated that the cost of maintenance will be £800 per annum. The necessary funds have been contributed by the ladies of Glamorganshire.

**LLANDRINDOD WELLS.**—The resident population of Llandrindod Wells has been doubled in the last 10 years and at the last census included 1828 persons. The medical officer of health (Dr. S. G. Floyd) reported to the district council on Oct. 11th that it was nearly six months since a resident had died and that there was a complete absence of infectious disease in the district.

## A Mirror

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

#### HIGH WYCOMBE AND EARL OF BEACONSFIELD MEMORIAL HOSPITAL.

##### A CASE OF PERFORATED GASTRIC ULCER; OPERATION; RECOVERY.

(Under the care of Dr. HUMPHRY J. WHEELER.)

IN the following case of successful suture of a perforated gastric ulcer about 26 hours had elapsed between the perforation and the operation, so that the recovery is more noteworthy. The empty condition of the stomach at the time of rupture was favourable. Another element in the prognosis frequently does not receive sufficient attention: this is the variety of microbic infection of the peritoneum which has occurred. It would be well if in all cases of operation for perforated gastric ulcer a bacteriological examination of the peritoneal contents were made. The question of the value of absence of the liver dulness in the diagnosis of perforation of the stomach or intestine is important. Stress was first laid on this point by Flint, and many others have subsequently insisted on its importance. Yet it is very doubtful if it is of any real value. Liver dulness may be present and yet perforation may have occurred, as in the case recorded below, and, on the other hand, the liver dulness may be absent although there has been no perforation. When other signs point markedly towards perforation absence of the liver dulness will serve to confirm this opinion, but if the other signs are indefinite it is well to place no reliance on the dulness over the liver.

A domestic servant, aged 19 years, was admitted into the High Wycombe and Earl of Beaconsfield Memorial Hospital at 4.30 P.M. on July 31st, 1901. The patient's father was living and in good health; her mother died from cancer. The patient had two brothers who were strong and well and one sister who suffered from spinal disease. The patient herself had been delicate since childhood and had suffered for a year from anæmia and dyspepsia for which she had been under treatment for five months, her symptoms being epigastric pain and tenderness, aggravated by food, occasional attacks of vomiting, constipation, and amenorrhœa. She had no hæmatemesis, but she had noticed that her stools were sometimes very dark, "like ink." On July 27th the epigastric pain was worse; she saw her medical man who prescribed for her, but she obtained no relief. On the 30th she had a meal at 4 P.M. consisting of tea, bread-and-butter, and currant bun. At 7.30 P.M. she was hanging some clothes on a line when she was suddenly seized with acute pain to the left of the umbilicus which radiated through to the back and upwards to the epigastrium. Dr. Wheeler saw her at 8.30 P.M. and found her doubled up with pain. Her pulse was weak and 84, the tongue was clean, and the temperature was 99° F. Her abdomen was tender all over, especially at the epigastrium, and was tympanitic. The liver dulness was not diminished. Her bowels had acted imperfectly on the 27th. There was no vomiting. She had been given whisky-and-water and brandy-and-water which increased the pain.

The patient's appearance suggested perforation, but Dr. Wheeler did not consider the symptoms conclusive in view of the normal area of liver dulness. He prescribed 10 minims of liquor morphiæ, two minims of dilute hydrocyanic acid, and five grains of bicarbonate of sodium to be given every four hours. He saw her the next morning at 10.30 A.M. She had passed a very bad night; the abdominal pain was excruciating and was aggravated by some spoonfuls of milk-and-soda which she had taken during the night and by a dose of castor oil administered by her step-mother in the morning. The abdomen was rigid, tympanitic, and very tender all over. The pulse was 126 and the temperature was 102°. The tongue was somewhat coated. Perforation

was diagnosed and her speedy removal to hospital was advised. A quarter of a grain of morphia was administered hypodermically and was repeated at 3.30 P.M. just before her removal. The journey of three miles to hospital gave rise to great pain and some collapse which caused a delay in performing the operation. A simple enema was administered which acted. At 9.30 P.M. the patient was placed under chloroform by Mr. J. G. Cort, which she took well.

An incision was made in the median line from one inch below the tip of the ensiform cartilage to one inch above the umbilicus. On opening the peritoneum it was seen to be inflamed. The stomach, which was very much distended, bulged forward and was seen by transmitted light to be empty. The transverse colon and omentum also protruded from the lower angle of the wound and gave rise to some difficulty. The peritoneal cavity was moderately full of semi-opaque fluid, but no gas or foreign material was detected. The exposed anterior surface of the stomach was carefully searched but nothing was found. On raising up the liver it was found that the under surface of the left lobe was adherent to the stomach by recently effused lymph; the adhesions were easily separated and the adherent portion of the wall of the stomach was seen to be puckered and thickened, but no perforation was seen. On passing a probe down one of the sulci it passed into the organ but no gas escaped. The stomach was carefully searched in all directions but no further signs of perforation were discovered. The edges of the puckered portion were then brought together with fine silk Lembert sutures which held well. The peritoneal cavity was carefully sponged dry and all visible lymph was removed, and the colon, omentum, and stomach were returned with some difficulty on account of their distension. A drain of iodoform gauze was inserted under the liver and was brought out at the middle of the incision. The peritoneum was next sutured with fine catgut; the abdominal walls were then brought together with deep and superficial silk sutures. The wound was dressed with sublimate gauze and wood-wool, which were kept in place by a many-tailed flannel bandage. The patient had a good pulse throughout and stood the operation, which lasted about an hour, very well. On recovering from the effects of the anæsthetic at 1 A.M. she retched a little and complained of pain. A quarter of a grain of morphia was injected and she was given a nutrient enema of beef-tea and brandy. She passed urine naturally. The nutrient enemata were repeated at 4 and 10 A.M., and another hypodermic injection of a quarter of a grain of morphia was given at 6 A.M.

On August 1st, at 11 A.M., Dr. Wheeler found the patient looking better but complaining of great abdominal pain. The wound was dressed and looked well. The abdomen was very much distended and tympanitic. Half a grain of morphia with one-hundredth of a grain of atropine was given hypodermically. The patient passed a quiet day. Nutrient enemata were given at 12, 2, 4, and 8 P.M. The mouth was rinsed out occasionally with hot water. At 10 P.M. the patient was found to be in pain again, so the morphia and atropine injection was repeated. Nutrient enemata alternately with nutrient suppositories were continued every two hours during the night. On the 2nd the patient was found to have passed a fairly good night, but she still had a great deal of abdominal pain. Chloroform was administered and the wound was dressed, the gauze drain was removed, and the aperture in the wound was sutured with silk; the wound looked well but the abdomen was still tympanitic. On recovering from the anæsthetic the pain returned and the hypodermic injection of morphia and atropine was repeated. Nutrient enemata were continued as before and the mouth was rinsed with water. The hypodermic injection of morphia and atropine was repeated at 10 P.M. The patient passed a comfortable night during which she had two loose evacuations, passing the remains of the currant bun eaten on July 30th. On August 3rd a starch and opium enema was given at 11.30 A.M. to quiet the bowels. The patient was decidedly better; the pulse had fallen to 90 and the temperature to 100°. She passed a good day and sucked ice at intervals. Nutrient enemata were given as before. She had a morphia and atropine injection at 10 P.M. There were two more loose actions during the night; the starch and opium enema was repeated at 4 A.M. On the 4th she was very comfortable. Nutrient enemata and ice by the mouth were given as before. She had a morphia and atropine injection at 6 P.M. During the night she had six drachms of Valentine's meat

juice. On the 5th she seemed to be stronger: she had a teaspoonful of Valentine's meat juice and whey at intervals. The bowels were loose. Nutrient enemata were given as before. She had a morphia and atropine injection at 10 P.M. She passed a good night. Valentine's meat juice and whey (three drachms at a time) were taken by the mouth. She had nutrient enemata as before. On the 6th she was progressing most favourably; the abdominal pain and distension were much better. 11 ounces of fluid (Valentine's meat juice and peptonised milk) were taken during the day. She passed a good night but had slight bilious vomiting at 6 A.M. and 9 A.M. On the 7th she was given dilute hydrocyanic acid (three minims in half an ounce of water) every three hours. There was no more sickness. The patient's further progress was uninterrupted. The wound was dressed on the 8th and again on the 12th, when the stitches were removed, the wound having healed by first intention except at two points, where there were some small granulations. Solid food was given gradually with Benger's food and corn-flour, followed by fish and minced chicken. She got up on the 21st and left the hospital for a convalescent home on Sept. 20th with the wound soundly healed and feeling and looking better than she had done for months. During the last three weeks of her stay in the hospital she was taking five grains of citrate of iron and ammonium, ten grains of bicarbonate of sodium, and chloroform water to one ounce three times a day.

*Remarks by Dr. WHEELER.*—The operation for the relief of perforated gastric ulcer is yet sufficiently recent to justify, I think, the publication of this case. It presents also some unusual symptoms which appear to me to be worth recording. The non-obiteration of liver dulness and the moderate amount of shock led me at first to doubt whether I had to do with a case of perforation. The reason for this was evident when the abdomen was opened—there were no signs whatever of gas in the peritoneal cavity. The perforation must, I take it, have been very minute and possibly valvular, and being situated just under the liver was almost immediately inclosed by adhesions. The stomach, too, was most likely empty, as quite three hours had elapsed since food was taken; at the time of operation it certainly contained nothing but flatus. It was fortunate that the coats of the stomach afforded a good hold for the stitches; in a case which I saw in the practice of a colleague very great difficulty was experienced from this cause and they gave way after a few hours. The peritoneum was not flushed as I concluded that the amount of contamination was not great, and the intestines being so much distended a thorough flushing would have been a matter of great difficulty, but all the accessible parts of the cavity were carefully dried and freed from lymph. It only remains for me to express my thanks to my friend and colleague, Mr. L. W. Reynolds, for his valuable assistance at the operation, at which Mr. G. D. Bannerman and Mr. Turner were also present and rendered aid. To Mr. Cort my warm acknowledgments are due for his skillful administration of chloroform and for his assistance in the after-treatment of the case.

## Medical Societies.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

#### *Acute Dilatation of the Stomach.*

A MEETING of this society was held on Oct. 22nd, Dr. F. W. PAVY, the President, being in the chair.

Dr. H. CAMPBELL THOMSON read a paper on Acute Dilatation of the Stomach, with Illustrative Cases, which will be found printed in full at p. 1113 of this issue of THE LANCET.

Dr. T. R. BRADSHAW (Liverpool) thought that the most obvious explanation of these cases of acute dilatation was that they were due to obstruction at the pylorus. He failed to see how, if the dilatation were due to disturbance of the nervous mechanism, vomiting could occur, for without the active contraction of the walls of the stomach the fluid could not be expelled, and he also thought it probable that the fluid would escape through the pylorus unless there were obstruction. Another point again in favour of the view that there was obstruction at the pylorus was that in all the cases

mentioned in the paper the intestines below the pylorus had been collapsed. He mentioned the case of an elderly woman who on three different occasions had had attacks of sudden dilatation of the stomach, and in each of these relief had suddenly occurred. He attributed the sudden distension and rapid relief to a kink having taken place in the region of the pylorus.

Dr. W. P. HERRINGHAM criticised Dr. Thomson's explanation of the cause of the acute dilatation. He said he could understand paralysis of the muscular coats and the secretion of fluid which was unable to pass out distending the stomach, but he failed to see how the stomach would distend against the pressure of the abdominal walls unless there was some such agent at work. He pointed out that in all Dr. Thomson's cases the stomach was distended with gas, which must have been produced within the stomach, and this in association with the paralysis of the muscular walls was the cause of the dilatation.

Dr. ARTHUR VOELCKER said that the occurrence of dilatation of the stomach in conjunction with left-sided pleurisy accounted for certain physical signs which were often present—viz., the high level of the resonance which might occur at the base of the left lung. He thought that against the view that the condition was due to pyloric obstruction was the fact that bile had been present in the vomit of two of the patients. With regard to the treatment he hesitated to advise that the stomach should be washed out, especially in those cases in which the condition of the patient was critical.

The PRESIDENT said that he viewed the stomach in exactly the same way as any other hollow viscus, and as the bladder became dilated and lost its power of contraction when an obstruction interfered with the evacuation of its contents, so the stomach became dilated when the pylorus was obstructed. He agreed with a former speaker in believing that it was impossible for an active dilatation of the stomach to take place. Two conditions were necessary to give rise to the dilatation: the first was atony or paralysis of the walls of the stomach, and the second was the expansion of the organ by fluid or gas within it. He referred to certain experiments on dogs in which both vagi had been divided, and it was found that the lower end of the œsophagus was enormously distended with food which the dog had swallowed shortly before its death. In this case there was paralysis of the fibres of the œsophagus and dilatation by means of the food swallowed.

Dr. THOMSON, in reply, said he did not believe there was any obstruction at the pylorus, for no peristaltic contraction had been observed. He mentioned the heart as an instance of a hollow viscus dilating actively. He quite agreed with the President that the two factors he mentioned were necessary to produce the acute dilatation of the stomach.

## OPHTHALMOLOGICAL SOCIETY.

*Presidential Address: Some Clinical Experiences of Primary Chronic Glaucoma and the Value of Iridectomy.—Rodent Ulcer of the Cornea in a Child.—Exhibition of Cases.*

The first ordinary meeting of the session of this society was held on Oct. 17th, Dr. DAVID LITTLE, the President, being in the chair.

The PRESIDENT, after expressing his appreciation of the honour conferred upon him by election to the chair, proceeded to relate his Clinical Experiences of Primary Chronic Glaucoma and the Value of Iridectomy. He alluded to the unanimity of the profession in regard to the performance of iridectomy or sclerotomy well back in the corneal margin, as the only means by which hope of remedy was to be obtained, referring to the work of Brailey, Priestley Smith, Nettleship, and Collins in the pathology of glaucoma as substantiating this view. The series under review consisted of 40 cases in which he had made a long incision far back in the sclero-corneal junction, sometimes with and sometimes without removal of the iris. He considered that iridectomy was the more trustworthy procedure and he now adopted it as the primary operation, renewing the incision if subsequently necessary at the same spot. There was considerable difficulty in keeping patients under observation afterwards and the necessity for this in judging of the value of treatment was obvious. Among hospital cases from 1886 to 1894, excluding those in which the notes were imperfect, he found 67 miscellaneous instances of glaucoma; 11 patients had died, leaving 56, and of these 37 were traced. Ten—that is, close on one-fourth—had

become totally blind, eight from atrophy of the nerve without increase of tension and the other two from atrophy of the globe and recurrence of glaucoma respectively. Vision had deteriorated from atrophy of the nerve in four and the remaining 23 showed no great change. Some were a little better and others were a little worse than at the time of the operation, but for the most part they remained stationary—that is to say, 62 per cent. held their ground 13 years after operation. All except one preserved a normal tension and three maintained a low standard of vision, Jaeger—19 and 20, present before operation—practically hopeless cases. In advanced chronic glaucoma with marked reduction of vision the operation reduced tension permanently, but blindness was threatened in many by atrophy of the nerve. Few cases were traced after 12 years. Among cases in private practice three could be traced for a longer period. One man operated on 24 years ago (1877) at the age of 40 years still retained vision =  $\frac{1}{2}$  and normal tension in the right eye, the left having been lost through glaucoma four years earlier. In another the vision had been slowly contracting for three years. The disc was pale and excavated, but central vision =  $\frac{1}{2}$ . A third patient after 19 years preserved normal vision and tension. Eight others could see well after from 10 to 15 years. As regards acute glaucoma the President recalled one patient who lost one eye in 1870 and a week later suffered with this disease in the other; iridectomy was performed hurriedly at midnight and the eye was saved, normal vision being retained 27 years after. Three others were well after 20 years, and a fair number from 10 to 15 years after operation. For the most part sight remained stationary for some years and then failed in the periphery, the progress being gradual at first. Simple cases formed only a small proportion. The President regarded treatment by myotics as useless and recommended operation in all cases of simple glaucoma, early or late, if there was any vision left. In some the operation failed to check the progress of the disease; in others its development was retarded, even at the age of 70 years. Many failures could be traced to faulty operation; an incision too far forward was worse than useless. At all times the procedure was difficult and the greatest precision was needed. In the early stage pressure symptoms were often overlooked, but where the other eye had been lost they naturally frightened the patient, and such cases came under operation satisfactorily. In three such cases under the President's care obscuration occurred with tolerable frequency. The coloboma resulting from operation did not affect the acuity of vision or the power of accommodation. He did not advise operation for pains in the temples, but where one eye was already blind and the second was threatened by premonitory symptoms and obscuration, the operation should be performed at once. The premonitory stage was most favourable for iridectomy, as von Graefe taught. Eserine and pilocarpine might diminish the attacks and retard the disease, but did not effect any real cure and the disease eventually became acute or chronic. Cases operated on early showed no recurrence of symptoms or obscuration. The iridectomy then might be of moderate size and did not need to be so far back as in the more advanced cases; a keratome should be used and the attachment of the iris should be removed. In conclusion, the President said that there was too much blindness from glaucoma, which might be prevented if early operation was more general. Confidence in this proceeding was increasing rather than diminishing.—Mr. E. NETTLESHIP moved, and Mr. A. QUARRY SILCOCK seconded, a vote of thanks to the President for his address in a few appreciative words and this was accorded with acclamation.

Mr. S. JOHNSON TAYLOR read notes of a case of Rodent Ulcer of the Cornea in a Child, aged three years, who had been previously ailing for several weeks. The disease developed and extended during the last three weeks in March until the upper one-third of the cornea was involved by superficial ulceration, the free edge being grey and the sclerotic aspect vascular. There were at first lachrymation and photophobia, with hyperæmia of the lids. At this stage the ulcer was freely scraped and treated with liquid carbolic acid, a pad and bandage being subsequently applied. Quinine lotion, four grains to the ounce, was instilled. By the middle of April the ulcer had healed. This was an instance of Mooren's ulcer, the progress and cure being the more rapid, as it was extremely rare in a child. There was no hypopyon or perforation. It was not malignant and it represented a clinical entity due to a specific germ. As it traversed the cornea it

left a nebulous condition behind it.—Mr. G. LINDSAY JOHNSON referred to the greater frequency of this disease in carnivora and rodents.—Mr. NETTLESHIP remarked on the absence of relapse.

The following cases were shown:—

Mr. R. MARCUS GUNN: Persistent Double Keratitis, mainly Superficial, without Tendency to Ulceration.

Mr. LINDSAY JOHNSON: A case of Deep-seated, Infective Conjunctivitis of an unusual character.

Mr. SYDNEY STEPHENSON: A case of Congenital Distichiasis.

Mr. E. TREACHER COLLINS: A case in which Moore's Rodent Ulcer had six years previously involved the whole Surface of each Cornea.

Mr. N. BISHOP HARMAN: (1) Choroidal Angiosclerosis, with Pigmentary Degeneration (two cases); and (2) a case of Paresis of the Third Nerve in which on Lifting the Drooping Lid there was Coincident Drooping of the Sound Lid.

Mr. G. W. ROLL: Congenital Patch of Pigmentation in the Fundus Oculi.

Mr. L. V. CARGILL: Sclero-corneal Dermoids in Both Eyes.

Mr. SILCOCK: Primary Chancre of the Eyelid in an Infant.

## HARVEIAN SOCIETY OF LONDON.

### *Hæmaturia in Childhood.*

A MEETING of this society was held on Oct. 17th, Dr. D. B. LEES, the President, being in the chair.

Mr. CAMPBELL WILLIAMS read a short paper entitled *Hæmaturia in Childhood*. In many cases, owing to the obvious presence of disease with which hæmaturia was apt to be associated, the etiology, source, and prognosis could be fairly accurately given at once. In others, though the source of the hæmorrhage might be evident, the causation was obscure and judgment had to be withheld for at least a time. The various medical ailments, drugs, and parasites which gave rise to the condition were enumerated. The surgical aspect was next reviewed. Traumatism of the kidney, ureter, bladder, and generative organs was discussed. In connexion with laceration of the ureter mention was made of a case of hydronephrosis following the injury which necessitated nephrectomy. The effects of calculi in the various portions of the urinary tract were gone into. It was remarked that in many proved cases of vesical calculus in young children hæmaturia was absent and that the only diagnostic signs had been dysuria and infrequent micturition; also that frequency of urination was more common in infants when the stone was renally situated. The value of skiagraphy in these cases was pointed out. Tubercle of the bladder and kidney was dealt with and attention was drawn to the fact that the first noted symptom of renal tuberculosis might be copious hæmaturia. In connexion with phimosis as an exciting cause of vesical hæmorrhage Mr. Williams remarked that he had never met with hæmaturia due to phimosis uncomplicated with some other cause. Reference was made to sarcoma as the type of malignant disease which affected the urinary organs in infancy and childhood, but that the bladder was practically exempt from implication by it in the very early years of life. Also the fact was noted that, excluding sarcoma, the bladder was little liable to tumour formation. The rarity of papilloma, mucous polypi, and adenomata was pointed out. Caruncle of the urethra in female children was noted as an occasional cause of blood in the urine. Hæmaturia dependent upon scurvy rickets the result of improper feeding was discussed and attention was drawn to the fact that sometimes bleeding from the urinary organs might precede the usual osseous or oral manifestations of the disease. It was likewise pointed out that in hæmophilia hæmorrhage from the bladder or kidneys might constitute the primary declaration of this dyscrasia in a child.

Dr. SYDNEY PHILLIPS remarked that hæmaturia arising from tuberculous disease of the urinary organs, especially when the kidney was affected, might be very profuse. He had not seen hæmaturia in scarlet fever except as part of an acute nephritis. In a patient suffering from typhoid fever and scarlet fever at the same time fatal hæmaturia had occurred and was shown post mortem to have occurred from the bladder wall. In children it was not infrequent to find hæmaturia which seemed attributable to the mechanical action of oxalates or of uric acid found in the urine. He thought that hæmaturia and epistaxis might result from the rheumatic poison.

Mr. BUCKSTON BROWNE referred to the completeness of the paper and said that he could only think of one source of

hæmaturia in children which had not been mentioned—namely, the bursting into the bladder of an abscess connected either with the hip or the spine; and he instanced a case where he had removed part of the body of a vertebra from the bladder into which it had been discharged from a spinal abscess. He also mentioned a case of infantile hæmaturia seen with Sir Thomas Barlow where the cessation of the use of sterilised milk and the taking of a little orange juice were followed by excellent results.

Dr. G. A. SUTHERLAND agreed with Mr. Williams that hæmaturia did not occur in uncomplicated rickets. In scurvy hæmaturia might occur from renal or vesical hæmorrhage and was directly dependent on the general disease. In some cases, however, he thought that a local cause existed in the form of mechanical irritation of the kidneys by uric acid crystals. These were frequently passed in large amount in scurvy, as in most affections characterised by profound anæmia, so that if hæmaturia was the sole evidence of the hæmorrhagic tendency during an attack of scurvy it was advisable to examine the urine carefully for uric acid.

## LIVERPOOL MEDICAL INSTITUTION.

### *Opening Address of the Session by the President.*

The opening meeting of the session was held on Oct. 10th, when Mr. EDGAR A. BROWNE, the President, delivered the opening address, of which the following is an abstract.

After some prefatory remarks bearing on the work of the Institution the President said: To those who live in the midst of the most remarkable achievements of the intellect the conditions of mental progress must be a fascinating subject, from whatever side approached. Whether we give ourselves up to mere wonderment, or to a picturesque enumeration of recent triumphs; or whether we endeavour to analyse the causes, the evolution, and the development of modern ideas; whether we take a historical view of the past or endeavour to cast a horoscope of the future; whether regarded merely as an intellectual amusement or as a practical guide for the organisation of our medical schools, or even as a help for the improvement of our own minds, the interest of a general view of progress is likely to appeal to everybody. All travellers like occasionally to pause and to view the road they have traversed and to examine the map of where they are going. It would be wrong to take a survey of medical progress in a mere parochial spirit; our survey must be wide. We do not stand alone. There is no medical science, properly so-called; we are tied and bound by the condition of the collateral sciences on which we depend. We are opportunists, in the midst of our more precise brethren, taking from them what will serve our turn. But though we have no science we may claim a scientific method which in its way is exact and productive of good results. The art of the practitioner must be distinguished from his science; his knowledge of the details of other sciences from his appreciation of what his own science requires. If we could carry out to its logical conclusion the scheme of a modern preliminary examination—e.g., the matriculation of London—we should be, not physicians, but scientists. The more exact a science the less room for the exercise of art, and it is a union of the methods of scholarship and science with the personal skill in dealing with the half-seen and the obscure in clinical work that makes the practice of medicine so fascinating. But arts tend to be lost, and though science is more stable, not only sciences but civilisations themselves have disappeared. The Egyptians have gone. Their learning was sufficiently profound to command the respect of the Greeks, but it has vanished. The modern Greeks are a brave and intelligent people, but they have not a tincture of the old civilisation—theirs is French. The possibility that modern science may be destroyed must be admitted; therefore the mode in which the torch of learning is kept burning or becomes extinguished is full of interest. There is nothing to show that in historical times the individual brain-power has increased; the power of using it has. The increased power due to coöperation is enormous. We can only judge of the past by the remains of literature and architecture, and by those tests the ancient civilisations were raised by men fully our equals. The mental endowments of men have always been in three classes—men of genius, of talent, and the mediocrities. There is no sharp line of demarcation, as the characteristics may even be shown in the same individual under different circumstances. Genius can scarcely

be defined, as it is manifested in many various ways. In relation to science it means the possession of faculties especially adapted for the work to be done. A man of genius may be supposed to have a feline quality of vision, able to pierce the surrounding gloom of ignorance earlier than others; hence have sprung the ideas which lie at the foundation of progress. Genius, however, is not always of itself efficient, and the great value of the men of talent is as interpreters. They are capable of appreciating genius, of seizing the gist of new ideas, and of bringing them into touch with the knowledge of the times. The mediocrities of themselves do not appreciate genius, they like it diluted; they herd together, they have their shibboleths, they distrust originality, singularity, or independence of thought. Thus they maintain the atmosphere of any art or science they may be connected with. They profit most by education, and they serve the practical purpose of diffusing and applying the knowledge afforded them by the men of talent. Now, if we fail in educating the mediocrities sufficiently for them to appreciate the teaching of the more active minds the progress of knowledge is arrested, and science fails for want of diffusion. If genius fails on the other hand, there is little use for the man of talent, and under such conditions science may dwindle and even become lost. The inventive and research capacity of the Chinese must at one time have been considerable, but knowledge has not moved with them for 2000 years; they have settled down to a vast population of mediocrities occupied incessantly in passing examinations or examining others more mediocre than themselves. Appalling as the thought may seem, the possibility of the same thing occurring to ourselves, if our educational machinery becomes too complicated and tyrannical, is not wholly chimerical. Moreover, a great discovery may be made and become public, but from a want of sufficient collateral knowledge may not only fall flat and be useless, but may even become positively detrimental; take, for example, the familiar discovery of the circulation of the blood. There are various interesting points connected with the state of knowledge at the time it was made. Why was it not made before? First, it needed the establishment by Bacon, the protagonist of scientific thought in this country, of the inductive philosophy on the ruins of the ancient authority, especially that of Aristotle. Bacon found the physicians great offenders. He had a poor opinion of them; he said they reasoned in a circle, and doubtless he was right. But he gave them a serviceable map of the country. He said, "Look the facts in the face, form your own opinions, never mind the ancients." Until that method was accepted as the working method the passage of the blood through the arteries was not likely to be investigated, because the latter were supposed to be air-passages. A few advanced thinkers knew that some blood was mingled with the vital spirits, but no connexion with the veins was generally accepted. The liver, not the heart, was the prime motor, and when a thing was believed and was obvious on superficial examination it took an original mind to look below the surface. Then it was a very unmechanical age. People did not concern themselves with the body as a machine—it was a vital organism and a marvel, and not to be too rudely examined either. Then the collateral sciences were not ready. Oxygen was not discovered for more than 150 years. Before oxygen was discovered the knowledge of the mere paths of the circulation was no good, so instead of seeing that the central fact about the circulation was its connexion with respiration, and accounting tentatively for the existence of the pulmonary tract, attention was merely confined to the movement of the blood—the movement and not the reason for the movement—and therefore they bled. Thus, the value of a great discovery was not only negated but perverted.

The address, which was listened to with great attention and was delivered without the assistance of any notes, ended somewhat abruptly owing to want of time.

**SOCIETY FOR THE STUDY OF INEBRIETY.**—A quarterly meeting of this society was held on Oct. 8th in the rooms of the Medical Society of London, Chandos-street, Cavendish-square, London, W., Dr. Wynn Westcott, coroner for North-East London, being in the chair.—Dr. Martyn Westcott read a paper on Sea Voyages in the Treatment of Inebriety. He said that although he could not boast of a very long experience of life at sea, yet he had formed a decided opinion about the suitability of sea voyages as remedies for drunkenness. In the case of the chronic drunkards who

might be considered hopeless, it was generally found that they suffered from fatty heart and fatty or cirrhotic liver or kidney disease. Not only were these patients disinclined to mend their drinking habits, but they were physically run down and debilitated, and therefore needed nursing and supervision. Life on board ship under the most favourable circumstances was not all comfort and rest, and the nursing, dieting, and quietude so essential for such invalids were very seldom to be obtained. Few cases of advanced disease of any type seemed to him (Dr. M. Westcott) fit for sea-life even at its best. There were also the habitual drunkards and the dipsomaniacs who indulged only in periodical bouts. A few months, or even years, spent in the healthy atmosphere of a home for inebriates, where discipline and dieting were carried out under medical supervision, would do much towards restoring the drunkard's self-respect and strengthening his good resolutions. Then before resuming business a sea voyage might be undertaken. The ideal sea voyage for these patients was one taken in a sailing-ship which was commissioned on teetotal principles, with a teetotal captain and crew, and which touched at scarcely a single port *en route*, but no reformed drunkard should be trusted on a sea voyage *alone*. There was no doubt whatever that the idleness and monotony of the life and the saltiness and the moisture of the air would tend to produce thirstiness. He did not consider a sea voyage in the light of a remedy where dipsomaniacs were concerned. It was usual for people to drink a good deal just before reaching the "home" port, and no doubt this was because they were in a disturbed, excitable state, expecting reunion with their friends, a return to the "old country," and a feeling that they ought to do something unusual. The periods of nervous irritability, depression, and præcordial distress to which the dipsomaniac was subject were likely to be more frequent on board ship than ashore. Therefore, if a dipsomaniac really wanted to be cured he (Dr. M. Westcott) would discourage him from embarking on a sea voyage. On the other hand, if any drunkard were really reformed and so sure of himself as to be proud of being a total abstainer there was no doubt that he would derive considerable benefit in his general health from the fresh outdoor life and change of surroundings characteristic of a sea voyage.—A discussion followed.

**MANCHESTER CLINICAL SOCIETY.**—The first meeting of the seventeenth session of this society was held on Oct. 14th at the Palatine Hotel, Mr. Herbert Lund, the President, being in the chair.—The President, in his introductory address, entitled, "Along the Urinary Tract," related numerous cases of surgical interest which had occurred in his practice. The liability to overlook the presence of vesical calculus in children suffering from phimosis and the tendency to neglect the "lacuna magna" in cases of recurrent gonorrhœa which resisted the ordinary treatment by injections were referred to and examples were cited. Suprapubic cystotomy in preference to lithotomy in patients the subjects of vesical calculus in whom the prostate was enlarged was strongly recommended, and the danger of getting a troublesome urinary fistula from the retention of a drainage-tube for any lengthened period was clearly demonstrated. That the bladder might be the seat of tertiary syphilitic ulceration was shown by two cases, in one of which the bladder had been opened for supposed malignant disease, and a large ulcerated surface was found. Under specific treatment the patient made a good recovery. Other cases of interest in renal surgery concluded the address, for which a hearty vote of thanks, moved by Dr. Holgate Owen and seconded by Mr. Stanmore Bishop, was accorded to Mr. Lund.—The following is the list of office-bearers for 1901-1902:—President: Mr. Herbert Lund. Vice-Presidents: Dr. E. T. Milner and Mr. J. E. Platt. Honorary treasurer: Mr. C. F. H. Kitchen. Honorary librarian: Dr. J. W. Hamill. Committee: Mr. Samuel Bagley, Mr. G. H. Broadbent, Dr. A. Brown, Dr. J. Gray Clegg, Dr. J. W. Crawshaw, Dr. J. Daniel, Dr. W. E. Fothergill, Dr. A. B. Fulton, Dr. James Holmes, Dr. D. Macmillan, Dr. F. Craven Moore, Mr. David Owen, Dr. R. T. Parkinson, Dr. E. J. Walker, and Mr. F. H. Westmacott. Honorary auditors: Dr. Alex. Fraser and Dr. W. K. Walls. Honorary secretary: Mr. J. Howson Ray.

**IPSWICH CLINICAL SOCIETY.**—A meeting of this society was held at the East Suffolk Hospital on Oct. 10th, Mr. J. F. C. Hossack being in the chair.—Dr. G. Vincent showed a patient who was suffering from Intractable Veldt

Sores. He had served in South Africa. No treatment appeared to have any effect.—Mr. Bartlet showed: (1) A case of Gunshot Wound of the Arm; and (2) a case of Sarcoma of the Mamma.—Mr. A. Y. Pringle showed a case of Carcinoma of the Mamma with Secondary Growths in the Liver.—Dr. H. H. Brown showed two specimens of Uteri removed for Carcinoma. He read notes on these cases. He also showed a specimen of Paget's Disease of the Nipple which he had removed; he commented upon the rarity of the disease.—Mr. C. K. Mosely showed a specimen of a Child's Larynx and Trachea with a penny firmly embedded at the bifurcation of the bronchi. The history was as follows. The child was brought to him six years ago with the history that she had swallowed a penny. No penny could be seen or felt and a skiagraph also gave no result. The child was comparatively well, with occasional asthmatic attacks, some bronchitis, and on one occasion pain under the right arm. She suddenly had an attack of profuse hæmorrhage from the mouth due to the ulceration into a blood-vessel and died.—Dr. W. W. Sinclair read a very interesting paper upon Local Anæsthetics. He deplored the fact that general practitioners did not make enough use of these useful drugs. He read notes on several cases. Among these he mentioned one of an old man who was in too weak a state to stand a general anæsthetic. He enucleated one eye with beta-cocaine and cocaine. He found beta-cocaine a most useful drug with practically none of the drawbacks of ordinary cocaine.—A long discussion ensued in which several members took part.—It was unanimously resolved that the honorary secretary, Dr. W. A. Gibb, should be asked to take charge of the Pathological Museum.

**BRISTOL MEDICO-CHIRURGICAL SOCIETY.**—The annual meeting of this society was held in the Medical Library of University College, Bristol, on Oct. 9th, Dr. D. S. Davies (and afterwards Dr. Barclay J. Baron) being in the chair.—Dr. Baron gave his presidential address on the Progress in the Diagnosis and Treatment of Disease of the Throat, Nose, and Ear during the past 20 Years. He drew largely from the lessons that his experience of special professional work had taught him, and he showed that the progress that had taken place in the knowledge of general medicine and surgery had been fully shared by this special branch.—The reports of the honorary secretary (Mr. J. Paul Bush), the editorial secretary (Mr. J. Taylor), and the honorary librarian (Mr. L. M. Griffiths) were read and adopted.—Mr. G. Munro Smith was elected President-elect and Mr. Paul Bush honorary secretary. The following six members of committee were elected: Dr. J. Michell Clarke, Dr. B. Rogers, Dr. H. Waldo, Mr. J. Dacre, Mr. J. Taylor, and Dr. P. Watson Williams. The following were elected to serve on the Library Committee: Mr. L. M. Griffiths, Mr. G. Munro Smith, and Mr. J. Taylor.

**ÆSCULAPIAN SOCIETY OF LONDON.**—A meeting of this society was held on Oct. 18th, the President, Dr. Arthur T. Davies, being in the chair. Dr. H. P. Miller showed a specimen of Ruptured Heart from a woman, aged 78 years. There had only been symptoms of "indigestion" until she vomited and fell back dead. The organs were healthy except the heart, which was fatty. The rupture was found at the lower front aspect of the left ventricle.—Mr. Reginald Brown read notes of (1) a case of Wry-neck in a child whose birth was long and difficult; and (2) a case in which a man, aged 45 years, whose liver was to be felt but was not enlarged upwards, complained of pain at and about the liver, had rigors and sweating and a rise of evening temperature to 102° F. He was given potassium iodide with mercury. In a week all symptoms lessened, and in two weeks they had disappeared.—A discussion followed.

**GLASGOW MEDICO-CHIRURGICAL SOCIETY.**—The first meeting of the session of this society took place on Oct. 4th, when Dr. W. G. Dun, the President, delivered an address on Blood-letting in the Treatment of Disease. He gave an historical survey of the whole subject and showed, by quotations from various classical works, how much blood-letting had been abused. The result was that in recent years a reaction had set in, and this method of treatment had been almost entirely abandoned. He maintained that the pendulum had swung too far in this direction and indicated the advantages of its use in conditions where there was sudden engorgement of the systemic veins, pulmonary artery, and especially of the right side of the heart.

## Reviews and Notices of Books.

*Text-book of Medicine.* Edited by GEORGE ALEXANDER GIBSON, M.D., D.Sc., F.R.C.P. Edin., Physician to the Royal Infirmary, Edinburgh. Edinburgh and London: Young J. Pentland. Two volumes, pp. 824 and pp. 869. 1901. Price 25s.

THIS text-book adds one more to the list of those works in medicine not written by a single author, but by several, under the editorship of a physician who himself contributes several articles. This method possesses many advantages as it enables the editor to select those observers who have directed special attention, and it may be research, to those particular subjects upon which they write. There is a danger, however, of such publications being overdone, several having been published in a comparatively short period.

Dr. Gibson may be congratulated on having secured an unusually good number of authors to help him in compiling his text-book. There is scarcely one of them who has not already contributed in a useful manner to medical knowledge and literature. It would be invidious for us to select any one subject for criticism; all are good and their authors have evidently spared no pains to render their own contributions as complete as possible. The plan of including a preliminary discussion of general etiological and pathological problems by way of introduction to the more practical portion of the work is a good one, and an excellent article by Professor G. Sims Woodhead and the late Professor A. A. Kanthack is the result. The reactions of the body and its tissues are first described in the form of cloudy swelling, fatty changes, wasting, and atrophy, necrosis, &c.; also other processes, such as acute and chronic inflammation, regeneration, and repair, are ably described. The remarks on the pathology of bacterial infection will also be found most interesting and instructive. The important matters of infection, predisposition, immunity, toxæmia, &c., are fully discussed.

Another good innovation will be found—namely, that certain symptoms occasionally dignified by the title of separate diseases will be sought for in vain under individual headings, but will be found as parts of the subjects to which they properly belong.

We have already said that it would be invidious to select any one subject for criticism; in a text-book of this size the subjects mentioned are so numerous that to speak in general terms is more satisfactory than to particularise, and this we can do in the highest terms of praise. A notice of the work, however, would not be complete without naming some of the contributors who have assisted in making the book the success which it undoubtedly is; if we do not name all, it is not because the contributions of those whom we omit are less meritorious than the others, but because the number is so great (36 in all) that want of space forbids. Several of the contributors also have written on more than one subject, so that we merely mention their names in connexion with one class of disease. Dr. J. Rose Bradford writes on Diseases of the Kidney, Dr. J. Mitchell Bruce on Diseases of the Endocardium, Sir T. Lauder Brunton on Angina Pectoris, Dr. J. O. Affleck and Dr. C. B. Ker on Typhoid and Other Fevers, Dr. W. Pasteur on Diphtheria, Dr. Patrick Manson on Malaria and Tropical Diseases, Dr. Hector Mackenzie on Tuberculosis, Dr. A. P. Luff on Gout and Acute Rheumatism, Dr. R. T. Williamson on Diabetes, Dr. Thomas Oliver on Lead and Similar Forms of Poisoning, Dr. Sidney Martin on Diseases of the Stomach, Dr. H. P. Hawkins on Diseases of the Intestines, the Editor on Diseases of the Pericardium, Dr. R. W. Philip on Some Diseases of the Lungs, Dr. W. Allan Jamieson on Diseases of the Integumentary System, and amongst those who write on Diseases of the Nervous System are Sir William

Gowers, Dr. Risien Russell, Dr. Alexander Bruce, and Dr. F. W. Mott. There are many other contributors whose articles will doubtless attract equal attention to those that we have mentioned, but we trust that we have said sufficient to indicate the high standard of the work.

*Encyclopædia Medica.* Under the general editorship of CHALMERS WATSON, M.B., M.R.C.P. Edin. Vol. VI., Joints to Liver. Edinburgh: William Green and Sons. 1900. Pp. 562.

THE general standard of the present volume of this encyclopædia is practically the same as that of its predecessors. The main subject dealt with in this volume is Labour, and the 11 articles devoted to it occupy nearly 200 pages. These articles are divided into a physiological section and a pathological section. In the former is contained an account of normal labour and in the latter are considered the various abnormalities which may occur. The Physiology of Labour has been treated by Dr. F. W. Haultain of Edinburgh, and he gives a very clear account of this important subject. The author has acted wisely in giving the measurements of the maternal pelvis and of the foetal head in what may be looked upon as "round numbers" instead of minute fractions; the former are much more easily remembered and are therefore more useful, even though they may not be so accurate; for practical purposes they are of greater value, because the individual normal variations which occur are quite sufficient to impair the trustworthiness of figures founded on averages. Dr. H. Jellett of Dublin has contributed a short section on the Duration and Progress of Labour. The article on the Diagnosis and Mechanism of Labour is from the pen of Dr. W. R. Dakin of St. George's Hospital, and is perhaps the best of the series. It is exceedingly clear and is abundantly illustrated by some clever diagrams which will serve to explain to the reader the by no means simple mechanism of the movements of the foetal head. The account of the management of labour has been undertaken by Mrs. Chalmers Watson, who has described carefully the methods of precaution to be taken in a midwifery case. The article is good and trustworthy. In the list of articles apparently to be provided by the patient is a four-ounce bottle of chloroform. This should surely be brought by the accoucheur. Dr. W. Stephenson of Aberdeen has described Labour in Multiple Pregnancy, and Dr. G. E. Herman, who is curiously called "Obstetric Physician, King's College Hospital," has undertaken the section on Precipitate and Prolonged Labour. This is an excellent article and well illustrated. Dr. W. E. Fothergill of Manchester has written on "Faults in the Passenger," or, as it is more usually described, Labour (Obstructed by Abnormalities in the Ovum. Dr. W. W. H. Tate, of St. Thomas's Hospital, has contributed the section on the Accidental Complications of Labour. Dr. T. W. Eden, of Charing Cross Hospital, has written the article on Retained Placenta and Dr. Jellett that on Post-partum Hæmorrhage. Dr. Jellett advises that in cases of post-partum hæmorrhage which have resisted hot intra-uterine douches the utero-vaginal canal should be plugged with iodoform gauze. The remaining article on Labour is from the pen of Dr. Amand Routh, of Charing Cross Hospital, and deals with injuries during labour.

Articles on the Kidney extend to many pages, but these are occupied chiefly by a paper on the Surgical Affections of this organ by Mr. E. Hurry Fenwick. As might have been expected this is ably written, and especially useful is the list of recent bibliography which is appended to each section of the article. For nephropexy Mr. Fenwick prefers silk sutures.

Another valuable section is concerned with the knee-joint, Mr. Alexis Thomson of Edinburgh describing the diseases and Mr. A. E. Barker of University College, London,

and Dr. E. G. Leopold Goffe of London taking the injuries of the joint. In the account of dislocations of the patella, we find the expression "vertical dislocation" applied to the rotational displacement of the bone on a vertical axis; it is much better called "rotation of the patella on a vertical axis." The other article by Mr. Alexis Thomson on the Surgical Pathology of Joints is of value. In the description of the joint affections of gonorrhœa it is not pointed out that in one, and that the mildest, variety the articular disease appears to depend merely on irritation of the toxins absorbed from the urethra.

Another important series of articles concern the larynx, and of these we may mention especially that on Acute and Chronic Inflammations of the Larynx by Dr. StClair Thomson of London. There are many other articles of interest in the volume that do not need to be more particularly referred to, but we must not omit to notice the very valuable contribution of Dr. H. D. Rolleston on the Diseases of the Liver. It is clear and accurate, and so far as the space allotted has permitted it is complete.

*Report on the Bacteriological Diagnosis and the Antitoxin Serum Treatment of Cases admitted to the Hospitals of the Metropolitan Asylums Board during the Years 1895 and 1896.* By G. SIMS WOODHEAD, M.D. Cantab., Fellow of Trinity Hall and Professor of Pathology, University of Cambridge; formerly Director of the Laboratories of the Royal Colleges of Physicians of London and Surgeons of England. London: Printed for the Metropolitan Asylums Board. Pp. 271. Price 7s. 6d.

THIS most elaborate report is full of interesting matter and the only point for regret is that its appearance has been so long delayed. The report deals exclusively with the cases that were examined bacteriologically during the period between Jan. 1st, 1895, and Dec. 31st, 1896. Owing to overlapping, and in order to bring as many completed cases as possible within the scope of the report, every completed case of which an examination was made during this period has been included, with the result that a few cases appear as having been admitted to hospital during the year 1894, and specimens from cases which were not discharged until the early months of 1897 are included because they were examined in 1896. This plan has enabled the statistics to be somewhat larger than if the calendar year had been strictly adhered to. The large number of cases dealt with enables some definite conclusions to be drawn both as regards the value of the bacteriological diagnosis of diphtheria and the treatment of the disease by antitoxin, and in addition certain side issues are also dealt with.

During the period above described 27,128 cultivations were examined. Of these 24,933 could be traced and assigned to 12,172 patients. Of these cases 73.42 per cent. gave evidence of the presence of diphtheria bacilli, in 5 per cent. of the whole bacteriological examination failed to assist the diagnosis of the disease. This clearly demonstrates the valuable aid afforded by an examination of material removed from the throat in determining the nature of the disease in doubtful cases. Stress is also very rightly laid on the importance of further examination when the first test proves negative; that is to say, in cases which from a clinical point resemble diphtheria, but in which no pathogenic bacilli are found when the usual "swab" has been taken and examined. The reasons for failure are several, e.g., imperfect swabbing of the throat, the use of antiseptics, or the localisation of the bacilli; these must be borne in mind when the cultures yield negative results. The cases of this nature recorded in this report were considerably fewer in 1896 than in 1895, showing that by increased practice in taking the swabs, improved technique, both in preparation of media and microscopical specimens, and further experience in the examination of those specimens, this source of error may be reduced to a minimum.

Another important point referred to is that of mixed infections, especially as regards prognosis. Where diphtheria bacilli only are found the long bacillus appears to be the most active agent in the production of the disease. Mixed infections were proved to be always more fatal than were simple diphtheria intoxications. Contrary to what is usually stated, it was found that the staphylococcus reinforcing the diphtheria bacillus appeared to be associated with a more fatal form of the disease than when a mixture of a streptococcus and the diphtheria bacillus was found. This feature is most marked in the case of the shorter and irregular forms of the diphtheria bacillus and where the long bacilli are absent; in this form of mixed infection the results are much more fatal than are the simple diphtheria infections where the short and irregular bacilli alone are present.

Clearly associated with this matter is the consideration of cases of scarlet fever complicated by diphtheria, and it is interesting to note the fact that in such cases the mortality has been greatly reduced where antitoxin has been used—greatly, no doubt, because of the early period at which the antitoxin is usually administered in these cases.

On turning to the tables of mortality it is seen that this varied greatly at different hospitals, being as high as 27·07 per cent. at the North-Western Hospital and as low as 0·0 at the Gore Farm Hospital, although at the latter place there had been 81 cases, all of which had diphtheria bacilli present in the throat. Further, of the 2503 cases under five years of age in which diphtheria bacilli were found, only 31·52 per cent. proved fatal, as against 47·4 per cent. in the pre-antitoxin period. As regards the percentage mortality where different parts are affected some interesting facts come out. In 1895 where the fauces alone were affected the percentage death-rate was 12·1; where the fauces and nares were affected, 39·5; fauces and larynx, 37·3; the larynx only, 30·7; and where the fauces, larynx, and nares were all affected, 62·2 per cent.; the extent and position of the membrane thus being shown to play a very important part in determining the severity of the disease. In 1896, when the antitoxin had undoubtedly improved and the method of treatment was better understood, there was, as the tables show, a considerable fall in the percentage mortality, especially amongst those cases that must be looked upon as of the most severe type. Another proof of the efficacy of the antitoxin treatment is furnished by the results of those cases which necessitated the performance of tracheotomy. Amongst the 3042 cases in the pre-antitoxin year 1894 there were 261 tracheotomies with 184 deaths, a mortality of 70·4 per cent. of the cases operated on. In 1896, when antitoxin was more used, there were only 246 tracheotomies amongst 5068 cases; of these only 104 patients died, or 41·46 per cent. As Professor Woodhead points out, had tracheotomy been necessary in the same proportion of cases in 1896 as in 1894, there would have been 467·7 instead of 246; or with the same percentage death-rate 328·7 instead of 104, the saving of life in one year on tracheotomy cases alone amounting on this calculation to 225.

There are several other important and interesting matters in reference to the use of the diphtheria antitoxin dealt with in the report, all strongly supporting the success of this method of treatment. This is all the more striking in that a large number of cases are dealt with, making the statistics far more valuable and convincing than when only the results of a few cases are considered.

The second part of the report is devoted to an account of the preparation of diphtheria antitoxin. The method of preparation of diphtheria serum is first described. Then Dr. Cartwright Wood's more rapid and safer method of producing antitoxin is detailed. The technique employed in injecting the horses, collecting the blood, and separating and distributing the serum is duly given. Further we find

described the principles and methods of testing the potency of anti-diphtherial or diphtherial antitoxic serum and, in tabular form, the amount of antitoxin supplied to the hospitals under the management of the Metropolitan Asylums Board.

In the appendix are given in tabular form the details from which the collective tables in the earlier part of the report are compiled. The labour involved in the preparation of this volume must have been immense, and Professor Woodhead and those who assisted him may be congratulated on having issued a work which will accentuate and encourage the general use of one of the most valuable and successful therapeutic measures of modern times.

#### LIBRARY TABLE.

*Proceedings of the New York Pathological Society for the Years 1899 and 1900.* New York: Printed for the Society. 1901. Pp. 347.—Of the numerous and varied communications forming this volume the following may be selected as a few illustrative examples:—Addison's Disease with Simple Atrophy of the Adrenal Body (Dr. Carlin Phillips); a Case of Weil's Disease, with a Short Experimental Study of Infective Icterus (Dr. Harlow Brooks); a Male Pseudo-hermaphrodite (Dr. F. S. Mathews); Miliary Tuberculosis of the Pleura without other Tuberculous Involvement of the Lung (Dr. Eugene Hodenpyl); Carcinoma Gelatinosum of the Mamma and other Organs (Dr. Hodenpyl and Dr. J. H. Larkin); Neuron Retraction (Mr. Frank and Mr. Weil); Mucinæmia (Dr. Isaac Levin); and Sarcoma of the Small Intestine (Dr. E. Libman). Some of the specially chemical or microscopical papers are as follows:—Cases of Gangrenous Bronchitis, with Isolation of an Organism Related to Streptothrix; Puerperal Infection with the Bacillus Aerogenes Capsulatus; Purulent Pneumococcus Meningitis; Changed Appearance of the Diphtheria Bacillus after Four Years' Cultivation; Chemical Examination of a Knife-grinder's Lung; Unusual Cases of Leukæmia; Typhoid Infection of the Uterus; Microscopical Demonstration of "Vaccine Bodies"; Preparation of Hæmatein Staining Solutions; Acid Intoxications; Death from Ether Anæsthesia; and Diabetic Coma. Professor Simon Flexner's "Middleton-Goldsmith" lecture on the Etiology of Tropical Dysentery forms an appendix.

*The Therapeutics of the Röntgen Rays.* By Dr. E. SCHIFF (Vienna). Translated by W. DEANE BUTCHER, M.R.C.S. Eng. London: Rebman, Limited. 1901. Pp. 36. Price 1s.—Hypertrichosis, lupus, and lupus erythematosus are the abnormal or morbid conditions the treatment of which is discussed at most length in this pamphlet. For all three of them Dr. Schiff strongly recommends exposure to the Roentgen rays and gives a variety of particulars as to strength of current, pattern of vacuum-tube, length of exposure, and so on. For hypertrichosis the current in the primary circuit ought to be at most two ampères, with a potential of 12 volts. The distance of the tube is from six to eight inches. Each exposure is of only 10 minutes' duration. The hair often grows again after a period of two or three months, but permanent alopecia is frequently obtained. It is also found that in sycosis the Roentgen rays have a curative effect quite apart from the destruction of the hair. For the treatment of lupus and lupus erythematosus a current of three and a half ampères in the primary circuit is used, with a potential of about 12 volts and a duration of exposure of from 10 to 15 minutes, the tube being at a distance of four inches and the surrounding skin being protected by a mask of stout cardboard covered with sheet lead half a millimetre in thickness.

*Atlas and Epitome of Ophthalmoscopy and Ophthalmoscopic Diagnosis.* By Professor Dr. O. HAAB of Zürich. Authorised

translation from the third revised and enlarged German edition. Edited by G. E. DE SCHWEINITZ, A.M., M.D., Professor of Ophthalmology in the Jefferson Medical College, Philadelphia, &c., with 152 Coloured Lithographic Illustrations. London and Philadelphia: W. B. Saunders and Co. 1901. Pp. 83. Price 13s.—This work is a translation of one of Lehmann's useful "Medicinische Handatlanten" and the original has been rendered into very good English. A translation by Mr. Ernest Clarke of the first edition of Professor Haab's treatise was reviewed in this journal in 1895. It then contained 39 lithographs, which were for the most part coloured, and were accompanied by 55 pages of letterpress. In this volume before us, which is the translation of the third German edition (recently reviewed in these pages), the number of illustrations has almost doubled and the letterpress has extended to 80 pages. The increase is due in the case of the text to a fuller description of the modes of examining the eye by the direct and indirect methods, to a more exact account of the shadow test, and of pulsation phenomena. In the case of the illustrations those that have been added are in part pathological and in part exhibit the appearances presented by sections of normal structures. The third plate shows a section through the retina, choroid, and sclera near the macula lutea seen under a low power. We should have expected a better plate. It shows the nuclear layers of the retina with quite isolated and independent nuclei. The ganglion cell layer is depicted as it was drawn 40 years ago. There should at least have been a companion plate showing connexions of the cells and nuclei and generally the results of modern research with high power of the microscope. Several additional plates showing forms of albuminuric retinitis have been added in this edition as well as others exhibiting the microscopic lesions. Dr. Schweinitz has himself appended a few figures—namely, those showing angioid streaks in the retina and the ophthalmoscopic appearances seen in arterio-sclerosis—which are well drawn. One of the new illustrations introduced by the author exhibits the appearances presented in syphilitic neuro-retinitis and disease of the retinal arteries. The case shows a stellate figure at the macula, but it is stated that there was not at any time a trace of albumin discoverable in the urine. A good chromo-lithograph is also given of a perforation of the macula lutea after contusion of the eyeball; the perforation has sharply-defined edges, is about half the size of a papilla, and is surrounded by a slightly opaque area, presenting minute dots and in places covered with pale, glistening spots and patches. Professor Haab remarks that openings of this kind at the fovea may appear spontaneously in advanced age without any traumatism, possibly owing to arterio-sclerosis. There is an instructive plate showing an air-bubble in the upper portion of the vitreous due to the entrance of a fragment of iron. We recommend Dr. Schweinitz's translation of the third edition of Professor Haab's Ophthalmoscopic Atlas as a work that should be in the ophthalmic wards or in the library of every hospital into which ophthalmic cases are received. It will be found to be extremely useful as a book of reference.

*Annual Report of the Imperial Bacteriologist for the Year 1900-1901.* Calcutta: Office of the Superintendent of Government Printing. 1901. Pp. 9.—In his report for the year 1900-1901, submitted to the Government of India, Dr. Alfred Lingard, the Imperial bacteriologist, states that during that period the laboratory officials were principally occupied in manufacturing anti-rinderpest serum and despatching it to the superintendents of the civil veterinary department and other officers who demanded it. A protective serum is being made by two methods, one requiring about 80 days for preparation and the other requiring from 14 to 20 days. The propagation of locust disease fungus was

continued and 156 tubes were sent out during the year, but it does not seem to have established its efficacy in India as it did in South Africa. Dr. Lingard has collected material for a second report on lymphangitis epizootica, a disease which was imported by mules from Italy and assumed the epidemic form in India in 1899.

#### JOURNALS AND MAGAZINES.

*The Journal of Anatomy and Physiology.* Conducted by Sir WILLIAM TURNER, K.C.B., F.R.S.; D. J. CUNNINGHAM, M.D., F.R.S.; G. S. HUNTINGTON, M.D.; A. MACALISTER, M.D., F.R.S.; and J. G. M'KENDRICK, M.D., F.R.S. Vol. XXXVI., Part 1. October, 1901. With Plates and Figures in the Text. London: Charles Griffin and Co. 8vo. Pp. 94. Price 6s.—This part contains the Proceedings of the Anatomical Society of Great Britain and Ireland for July, Notes on the Aberdeen University Anatomical Society, and ten articles. Of these the first is a Contribution to the Study of the Morphology of Adipose Tissue, by Dr H. Batty Shaw of University College Hospital. This observer agrees with Flemming that fat cells are modified connective tissue cells. 2. The Structure of the Left Auriculo-ventricular Valve in Birds, by Mr. A. Hodgkinson of Owens College, Manchester. He finds that this valve is formed of three cusps and is therefore of the tricuspid type. 3. On the Development of the Renal Portals, and Fate of the Posterior Cardinal Veins in the Frog, by Dr. Thomas W. Shore, Lecturer on Comparative Anatomy and Biology to St. Bartholomew's Hospital and College. 4. A description of the "Socia Thymi Cervicalis" and Thymus Accessorius, by Dr. N. Bishop Harman. 5. A case of Rudimentary First Thoracic Rib in a Horse, by Dr. O. Charnock Bradley, Professor of Anatomy, Royal Veterinary College, Edinburgh. The condition was symmetrical. 6. A case of Congenital Malformation of the Heart with Abnormalities of the Abdominal Viscera; Absence of the Spleen; Absence of the Hepatic Section of the Inferior Cava, by Dr. T. W. P. Lawrence and Dr. David Nabarro. The case is in many respects interesting and the dissection was carefully made. 7. Two cases of Supernumerary Radialpalmar Muscle, by Dr. Norman W. Kater. 8. A case of Multiple Renal Arteries, by the last-named writer. 9. Description of a Fetus Amorphus, by Dr. George A. Charlton, with three plates. 10. Acardiac Monster caused by a Fetal Adhesion to a Placenta Succenturiata, by Mr. Edred M. Corner, resident assistant surgeon, St. Thomas's Hospital.

*Caledonian Medical Journal.*—Much of the October number is occupied with an account of the twenty-first annual meeting of the Caledonian Medical Society held on August 9th in the Hall of the Faculty of Physicians and Surgeons of Glasgow, Dr. H. Cameron Gillies (London) presiding. At the annual dinner, which took place the same evening, the toast of the Caledonian Medical Society was proposed by Sir Hector Cameron and acknowledged by Dr. Gillies. The society has 180 members. The Gunning Celtic prizes of the society, to be awarded next year, have been several times mentioned in THE LANCET; it is now announced that another prize of £10 will be competed for after the award of the Gunning prizes has been made. Dr. D. G. Sutherland of Brora, Sutherlandshire, contributes to the journal an article on surnames in that county. Mackay is the most frequent one, being borne by 20 per cent. of the population; next in numerical order is Sutherland, with 8.5 per cent.

*Birmingham Medical Review.*—In the October number Dr. W. A. Potts writes on Mentally Deficient Children with especial reference to the early diagnosis of the condition in question. Dr. T. Stacey Wilson describes the various Displacements of the Heart, classifying them as due either to changes within the heart itself, or to alterations in the

volume of the lungs or of the abdominal organs, or to the growth of tumours.

*Journal de Mal de Mer et de la Santé à bord des Navires.*—Paris: 82, Boulevard Port-Royal.—In the August-September number of this periodical, which is the journal of the League against Sea-sickness, Dr. Zahé advances the argument that slight degrees of umbilical hernia are more common than is generally supposed and that a predisposition to sea-sickness is thereby created. For the relief of sea-sickness attended by this complication he has devised a sort of compress, called the "contentif ombilical." Dr. Maggioranni of Rome writes recommending the hydro-electric bath.

## New Inventions.

### ELECTRICAL EVAPORATING AND INHALING APPARATUS.

It is claimed for the evaporating and inhaling apparatus shown in the accompanying illustration that it may be used even by a patient lying in bed without danger of fire or explosion, the source of heat being a small electric lamp. The vapour employed can be inhaled through either the mouth or the nose with the help of the indiarubber nozzles sent with the apparatus, or it can be blown into the ear by means of a double bellows. The drugs capable of being inhaled in this way include oil of turpentine, oil of eucalyptus, alcoholic solutions of menthol, thymol, creasote, guaiacal, carbolic acid, &c. The prescribed number of drops are allowed to fall on wadding contained in the upper part of the inhaler. The apparatus is then connected with a source of electric current, such as a wall-plug or lamp-holder, or an accumulator if electricity is not laid on to the house. When the incandescent lamp is alight the patient may begin to inhale. The maker is Mr. K. Schall, 55, Wigmore-street, W. The apparatus in its ordinary form is designed for a tension of 110 volts. If tensions much exceeding this are to be employed a statement to that effect should accompany the order.

### A DISINFECTING CLOTH FOR TELEPHONES, SPEAKING-TUBES, &c.

THAT telephones and speaking-tubes may easily become sources of infection is obvious, and the "odourless retentive disinfecting cloth" is designed to avoid this risk. According to our analysis the fabric contains two distinct chemical salts, one of which, being hygroscopic, serves to keep the cloth permanently moist and the other to render it germicidal. In a word, the cloth is an antiseptic wiper, as shown by a number of bacteriological experiments made with it. Our experiments have shown that the cloth keeps moist practically indefinitely, a very important point. The cloth is replaced at intervals by the company supplying it for a small annual payment. Disinfecting tests have been made with it by purposely infecting the transmitter and receiver of a telephone with cultures of disease germs. It is stated that on the average 98.70 per cent. of the germs were removed, and, further, that the microbes on the cloth were found to be destroyed. In this way the pus organism, the typhoid organism, and faecal organisms were employed for the experiment. There is no doubt that the cloth might be employed with special advantage in public call offices. It may also be used for other purposes, such as for cleaning surgical instruments, for wiping Bibles in police-courts where

the objectionable system of kissing the book still prevails, for wiping razors, for cleansing the seats of water-closets, and countless other uses and applications. The specimen which we examined was submitted to us by the Odourless Retentive Disinfecting Cloth Company, of 96, Leadenhall-street, London, E.C.

### A MEAT JUICE EXTRACTOR.

THE accompanying illustration easily explains the construction of this very useful beef press which is intended chiefly for use in the patient's own home. The interior consists of a strong metal cup provided with perforations. Into this cup and nearly fitting it a similarly strong cup, made also of metal, is forced downwards



by means of a screw and handle similar to that of the copying press. The pressing cup is deeply grooved in a diagonal direction. The surfaces of both cups are galvanised and are clean and bright. The apparatus works excellently and economically. It is a great advantage for the patient to have beef juice prepared freshly at his own home, and, moreover, his medical adviser is thus enabled to prescribe exact allowances. Of course, mere pressure does not extract by any means the entire nutritious portion of beef; still, a juice is obtained in this apparatus of a powerful, nourishing, and stimulating quality.

Obviously the extracted meat or residue may also be used if desired. The apparatus is well adapted for both hospital and home use and is very convenient. It may be obtained from the Alexander Manufacturing Co., of 42 and 44, Moor-lane, London, E.C.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY meeting of the Council was held on Oct. 17th, Mr. H. G. Howse, the President, being in the chair.

A letter was read from the Secretary of State for Home Affairs reporting the very gracious reception by His Majesty the King of the address of condolence from the Council of the College on the death of the Dowager Empress Frederick of Germany.

Mr. HOWARD MARSH reported that in accordance with the wishes of the Council he had attended the celebration of Professor Virchow's eightieth birthday at Berlin on Oct. 12th and had presented to him on behalf of the Council an address of congratulation. It was resolved that the address should be entered on the minutes, and the best thanks of the Council were given to Mr. Marsh for acting as the delegate of the College.

Mr. R. HARRISON, on behalf of the Committee on the Annual Report of the Council, submitted a draft copy of the report to be presented to the Fellows and Members at the annual meeting to be held on Nov. 21st, 1901.

Sir William MacCormac, Bart., was re-elected a member of the Committee of Management.

Mr. H. T. Butlin was elected a member of the Laboratories Committee in the vacancy occasioned by the retirement of Mr. H. G. Howse.

A letter was read from the Privy Council, inclosing a copy of a note from the Egyptian Acting Minister for Foreign Affairs, announcing that a medical congress will be held at Cairo from Dec. 10th to 14th, 1902, and on behalf of the Egyptian Government expressing a hope that British scientific societies and institutions will take part in the congress.

A letter was read from the President and Secretary of the Fourteenth International Medical Congress, asking the President of the College to announce that the Congress will be held at Madrid from April 23rd to 30th, 1903, and inclosing copies of the rules of the Congress and forms of application for membership.

# THE LANCET.

LONDON: SATURDAY, OCTOBER 26, 1901.

## School Punishments.

No animal when young likes being taught, and therefore some measures of discipline are found to be a necessity. Discipline includes punishment, and one form of punishment is that known as corporal, involving the infliction of pain. We have always maintained that corporal punishment is the best form for certain offences, notably for that form of brutality known as "Hooliganism," a word which includes attacks upon the police or upon old men or women with or without the additional crime of robbery. We should also like to see the punishment of flogging extended so as to cover criminal assaults upon children or gross cases of cruelty to lower animals. But the matter with which we are more immediately concerned at present is corporal punishment as used in schools, whether in great public schools, in national schools, or in board schools, and as an instance of what corporal punishment as used in a school should *not* be we cite the following account as forwarded to us by a correspondent. He tells us that his son, aged 11 years, a day boy at a large public school, returned home one day with his hands severely bruised on account of a caning received from the head-master. The boy's hands were covered with weals and there were extravasations of blood under the skin. So severe were the injuries that the boy was unable to use pen or pencil for some days.

The object of all school punishments should be to deter as well as to reform, and they may be divided into expulsion, corporal punishment (caning or birching); and impositions. Of the first class of punishment we shall say nothing here. With regard to the second we think it both necessary and useful. But when administered it should be a reality and not used as it was at Westminster in BUSBY'S time or at Eton under KEATE as a punishment for great offences and trivial misdemeanours indiscriminately. With regard to the instrument by which the punishment is inflicted it is either the cane or the birch, and in our opinion the cane should never be used as the ordinary instrument of school punishment. A cane may possibly bring about irreparable damage, and caning on the hands is the most senseless and cruel form of punishment imaginable. The hand is a delicate and wonderful piece of anatomy, its nerve endings and the muscles which bring about the finer movements are but imperfectly protected from blows, and to produce injuries such as those described by our correspondent would be wrong even in reply to the worst of schoolboy offences. The birch is the best implement of punishment for small boys. Firstly, it hurts; secondly, if applied in reason it does no harm; and, thirdly, the seat of election for a birching is the gluteal region and this from its anatomical construction is fitted for the reception of corporal punishment. The skin over it is thick and

plentifully supplied with nerves so that the desired pain is easily felt without the infliction of violence. There is underneath the skin a good layer of fat, underneath this again is a layer of thick coarse-fibred muscles, upon which follow the bones protecting the parts within the pelvic cavity. But while we defend corporal punishment in certain cases, we consider that there are rules which should govern its infliction. In the first place it should never be inflicted by an under-master, but only by the head-master, or someone to whom the head-master delegates his penal authority. This plan practically necessitates the existence of the second rule—namely, that corporal punishment should never be inflicted immediately upon the commission of the offence, and also it allows opportunity for appeal. Thirdly, it should be reserved for offences of some magnitude and should be fairly severe. The birch is the best instrument and it should be applied to the buttocks.

The idiotic custom of setting lines is a futile form of punishment. True, it keeps a boy from his play, or, what is worse, prevents him from doing work which might be useful to him, but as a punishment it does not do the slightest good and leads to habits of deceit. We have probably most of us written out, say, 500 lines, scribbled off as fast as possible, with two or even three pens at a time, knowing perfectly well that the master would never count them and would probably just glance at them. An imposition should be of some use, and to set a boy a copy of verses or a piece of prose composition would be infinitely more serviceable. Punishment is a necessity, but it should be inflicted in a reasonable manner, and corporal punishment, if safeguarded, as we have endeavoured to show, is a penal method by no means to be lightly given up. It is, we fancy, not nearly so much resorted to nowadays as it was even so lately as 30 years ago, and our readers should remember that all of them can at times add the weight of their professional opinion to the protests of parents in a case such as we have cited above: while such of them as are medical officers of schools can raise their voices against the use of the cane in any way, and caning on the hands should be absolutely interdicted.

## Ophthalmoscopy Applied to the Eyes of Mammals.

A HIGHLY creditable memoir, the fruit of many years of quiet and unobtrusive research, has just been published in the Philosophical Transactions of the Royal Society. It is written by Mr. GEORGE LINDSAY JOHNSON and is devoted to the description and illustration of the ophthalmoscopic appearance of the eyes of many animals. A few, but very few, works have been published on this subject. The eyes of the ordinary domestic animals have of course been examined by many veterinary surgeons, but even of these scarcely any coloured plates are extant, and the inquirer has to be content with verbal descriptions. Mr. JOHNSON'S 29 plates, with more than 60 figures, are a revelation in this department of ophthalmology. They are beautifully executed by Mr. ARTHUR W. HEAD and have been extremely well chromo-lithographed. 182 mammals have been examined, falling under 103 genera, and 47 families representing all

the natural orders of this class, with the exception of the cetacea and sirenia. The colour of the fundus oculi in those animals that have no tapetum is chiefly due to the reflection of light by the choroidal pigment. In the carnivores, which have a cellular tapetum, it is mainly determined by the colour of the retinal pigment, whilst in the ungulates, which have a fibrous tapetum, it is due to the colour of the tapetum modified by the colour of the retinal pigment. Examples of the different colour presented by the fundus may be seen in man and in nearly all the primates, in the suidæ, in the hyracoidæ and in the rhinoceros, in which it is of the red type; a yellow fundus is seen in the chiroptera, in some felidæ and mustelidæ, in the elephant and in the tapir; and lastly, a green and yellow-green type of colour is met with in most carnivora and in all selenodonta except goats and camels. These varieties are beautifully shown in the plates. The drawings were obtained by the direct method of using the ophthalmoscope, which would at first sight seem impossible to apply to wild animals, since it involves the close approximation of the eye of the observer to that of the animal under observation; but Mr. JOHNSON observes that, as a rule, kindness, coaxing, and taming were sufficient to overcome all difficulties. The lids were held apart with the fingers or spring specula and mydriatics were generally employed. When we find elaborate drawings of various monkeys and lemurs, of the seal, the serval, the skunk, the black bear, the camel, the wild boar, the Indian rhinoceros, the tapir, the elephant, and many others, we are at a loss whether to admire most Mr. JOHNSON'S courage in patiently watching his opportunity to examine the eyes of these formidable animals, which could not have been subjected to any anæsthetic, or the very curious, interesting, and instructive drawings which he has obtained.

The disposition of the choroidal vessels is seen to vary greatly. In some instances they are very conspicuous, as in the Indian rhinoceros and the elephant, the kangaroo, the wombat, the beaver, and the chinchilla, the meshes being sometimes fine and close, at others coarse with wide areolæ; sometimes, on the other hand, they are wholly invisible, as in the hairy armadillo, the British black rat, and the hedgehog. The optic disc, again, presents great differences in form, size, and colour, being sometimes circular, as in man, the chinchilla, the beaver, and many others; sometimes oval, with the long axis vertical, as in the echidna; or horizontal, as in all the equidæ, the carnivore *cynictis*, the wild boar, the hog-deer, and the chevrotain; sometimes with large retinal vessels springing from near its centre; and sometimes with numerous small vessels emerging at, and radiating from, its periphery, as in Burchell's zebra. Sometimes it is of a dead white colour with no visible vessels, as in the Indian rhinoceros and the perissodactyls generally, the hairy armadillo, and the echidna; or grey without vessels, as in the Brazilian porcupine; or with a small closed plexus, as in the rabbit-eared perameles, the squirrel-like phalanger, and the rufous rat-kangaroo. In the striped hyæna—not perhaps the most engaging of animals to examine—in the black-backed jackal, and in the black bear it is of a deep red hue, whilst in others, as the chevrotain and the hog-deer, it seems to be permeated with pigment. The different appearances of the tapetum with its yellowish-green tint and

brown or black borders are beautifully portrayed. It is exceedingly interesting to find that Mr. JOHNSON has observed in certain animals as normal conditions appearances which in man are regarded as congenital defects or vestigial relics. Thus opaque nerve-fibres are very marked in some of the rodents and marsupials. Nearly all of the cat tribe and the flying squirrels present a physiological cup in the disc. A condition resembling retinitis pigmentosa is seen in the galagos and the lorides, and it is remarkable that if these nocturnal animals are long exposed to daylight the pigment advances concentrically as in the retinitis pigmentosa of man, and the animals gradually lose their vision. A persistent hyaline artery which is occasionally seen in man is found as a normal condition in nearly all the ruminants and in a large number of the rodents. Some of the rodents, and more especially all the agoutis, present vestiges of a pecten.

The presence of nerve-fibres with retained sheaths giving a radiated aspect to the disc is of common occurrence, being seen in the skunk, in the squirrel, and in the rabbit. As a good ophthalmologist Mr. JOHNSON has not confined his attention to the aspect of the fundus, but has made some observations on the refraction of many animals, and finds that with the exception of the seals and whales vision is hypermetropic throughout the mammalia. The seals are astigmatic to an extraordinary extent—a condition that is probably connected with their amphibious life. Domestication appears in the eye, as in other organs, to increase variability, the colour of the fundus as well as the refraction undergoing marked alterations in such animals as the dog, the horse, and the rabbit as compared with wild animals. It is of considerable interest to find that a classification of animals in accordance with their ophthalmological features supports, and is in general agreement with, the best modern classification founded on other characters. Mr. JOHNSON has made a good commencement of what may be termed comparative ophthalmoscopy; the field is large, there are few cultivators, and it may be hoped that he will have time, health, and leisure to pursue it.

## War Office Reform in Relation to the Army Medical Services.

WE would call the attention of all who are interested in War Office reform in general and the new scheme for the reorganisation of the Army Medical Services in particular to the very important Orders which have been issued for the reconstitution of the War Office. It will be remembered that some time ago an independent and influential committee was appointed to go into the whole subject of War Office reform. In due time this committee of business men known as the DAWKINS Committee issued its report and put forward its recommendations, among which was a proposal for the institution of a War Office Board possessing large and far-reaching powers. This proposal has not only been accepted by the authorities in principle, but it has since been extended, amplified, and applied in the directions laid down and embodied in the Orders now issued by the War Office. The new scheme is an elaborate and very important one, and we have now been furnished with a description of the machinery by

which it is proposed to be worked. There is, first of all, to be a powerfully constituted War Office Council, presided over by the Secretary of State for War, or in his absence the Commander-in-Chief, which will meet weekly to discuss and to deliberate upon all matters referred to it by the Secretary of State or brought before it by individual members of the council. The functions of this council are apparently of an extended character with delegated powers and authority commensurate with its responsibilities. The Director-General of the Army Medical Department is to be a member of this council as far as all medical and sanitary questions are concerned. In connexion with this Council an Executive Committee is to be established at the War Office for the purpose of coördinating the business of the office and of securing combined action on matters affecting more than one department. The functions and duties of this permanent Executive Committee and of its respective members are clearly set forth. The Deputy Director-General of the Army Medical Department, or an officer selected by the Director-General, is to be a member. Provision is also made for the formation and summoning of special Departmental Committees to report upon any special subjects or points. The existing Army Board is to remain as it is as regards its constitution and duties with the important addition that the Director-General of the Army Medical Service is to be a member of it—a reform which we have repeatedly called for in THE LANCET. Henceforth, it appears to us, the Army Medical Service will be amply represented in the highest military places and in a position to put forward its proposals and to initiate discussion thereon, and so to exercise an effective influence in all army medical and sanitary questions as well as in those bearing on the health and comfort of troops. Whether the Advisory Board proposed in the report of Mr. BRODRICK'S Committee on the reconstitution of the Army Medical Services may prove to be unworkable or not, it surely cannot weaken the hands of the Director-General on the War Office Council, seeing that his proposals will come before the latter supported by an independent civil element. We pointed out last week that this report was but a series of recommendations, and we asked our readers to think whether it might not be well before virtually condemning an immature and untried scheme—and thereby threatening to arrest the growth of efforts towards reform—to wait until something further was known about it and about the intentions of Government in regard to it. So far, at any rate, the wisdom of adopting that policy seems to have been justified. The Army Medical Service, as it seems to us, when represented upon, and taking part in the deliberations of, three very important boards at the War Office, can scarcely fail to occupy a more influential and powerful position than has hitherto been the case. Other changes are, no doubt, required in the scheme put forward by Mr. BRODRICK'S Committee for the reconstitution of the Army Medical Services—for example, a correspondent points out in our columns this week that from one point of view an actual decrease in pay is being offered to the officers of the Royal Army Medical Corps under the new recommendations; but that of temperate criticism will be the fairest and best spirit in which to approach the report.

## Annotations.

"No quid nimis."

### QUACKS AND AN AMERICAN NEWSPAPER.

A NEWSPAPER published in the United States, the *Philadelphia Times*, appears to have taken a step which should commend it to all decent citizens in the district in which it circulates. It has published a statement to the effect that it declines to accept any advertisements that savour of quackery or fraud and it has defined its position as follows: "The *Times* has drawn a line that it never allows to be passed. It refuses to insert at any price, though they are repeatedly offered, all advertisements of 'diseases of men,' 'female remedies,' 'guaranteed cures,' and such like indecencies, and of massage, clairvoyance, and other cloaks for vice. It equally refuses advertisements which promise something for nothing, that guarantee big dividends or otherwise lure the reader to questionable investments. And it absolutely rejects all objectionable displays and the huge illustrations in advertisements that are offensive to good taste and common decency." We commend the *Philadelphia Times* for the position which it has taken up and we see no reason why a newspaper that has resolved to keep its columns free from degrading advertisements should not give the fullest information as to its policy to the public for which it caters. In England there are many newspapers which do not publish advertisements of the class first referred to. These are, as a rule, newspapers circulating in classes of the community where such advertisements would not be tolerated or would not secure customers for the advertisers. The majority of newspapers in England which circulate among the lower middle and lower classes of society, and in circles where the credulous and the vicious are likely to form an appreciable element, almost invariably contain advertisements of the more disgraceful kind which the *Philadelphia Times* refuses to accept. It would be utopian for us to hope for the exclusion of quacks' advertisements from newspapers simply on the ground that they contain fraudulent promises of impossible cures and are the means of swindling simple-minded people. It is otherwise, however, when the advertisements deal with the results of sexual immorality and more or less openly proclaim the merits of alleged aphrodisiacs and abortifacients. Recent prosecutions have for a time caused a cessation of advertisements of the latter class; those of the former continue, and it will be remembered that it was the vendors of the female pills and concoctions who were prosecuted—not the newspaper editors who accepted their perfectly candid advertisements. Advertisements relating to venereal diseases and infirmities connected with sexual intercourse are in England declared indecent by Act of Parliament when exhibited near the highway or in public urinals. In newspapers their indecency would presumably be a question of fact for a jury, but the police do not institute proceedings in respect of them. That their suppression is desirable none will deny, for they are not only the product of vice and immorality—they are direct incentives. By a coincidence the *St. Louis Courier of Medicine*, from which we quote the manifesto of the *Philadelphia Times*, contains an abstract of a paper read by Dr. George Engelmann of Boston, Massachusetts, before the Gynecological Section of the American Medical Association last June, in which he gives rather startling figures relating to the apparent increase of sterility among American women and the decrease of fecundity among those married women who are not altogether childless. Primary sterility, together with the condition of childlessness due to miscarriage, he

declares to be, to a large extent, intentional and artificially produced among women in the United States. We need not discuss in detail his figures or his deductions, but we may point out that conditions such as those which Dr. Engelmann declares to exist, and which he naturally deplures, form an appreciable feature in modern social life elsewhere than in America, while they can hardly fail to be largely fostered and developed by the wide circulation of advertisements such as those to which we have called attention, which proclaim and trade upon the sensual aspects of sexual intercourse, encouraging the young and inexperienced to believe that they can indulge and over-indulge their passions with impunity, while those who are suffering from their imprudence are lured by specious promises of impossible or criminal "remedies" and are made easy victims to blackmail and extortion.

#### "IS TYPHOID FEVER INFECTIOUS?"

THIS question arose recently in the Durham County Police-court when an application was made for an order for the compulsory removal to a fever hospital of two young men. It was stated that the house in which the patients lived contained three sleeping-rooms and that 12 people lived in the house. The interest of the case lies in the fact that the chairman of the board of magistrates raised a doubt as to whether or not typhoid fever was infectious and made the following extraordinary remarks: "I remember once having considerable experience in a place where there were 100 cases. We had all the experts of the country there and they declared that it was not infectious." The worthy chairman (he was a canon) must have misunderstood the "experts." We need scarcely say that typhoid fever is not infectious in the same manner that scarlet fever is, but that unless the greatest care is taken with the excreta infection is very easily spread. Fortunately, the practitioner who had seen the cases was present in the court, and having at the request of the chairman "sworn" that typhoid fever was infectious the required order was made.

#### MR. CHAMBERLAIN'S SPEECH ON TEMPERANCE.

THE speech on temperance delivered by Mr. Chamberlain on Oct. 14th at Birmingham was characterised by that practical moderation which he commended to his hearers. Evidently recognising the futility of attempting to deal with any of the controversies which have gathered round this subject he concentrated his attention upon drunkenness as the real object of reforming energy. He noted the obvious impossibility of arriving at national sobriety by any process of legislation however comprehensive. The evidences of improvement observable even without the aid of trustworthy statistics during the last 70 years he attributed mainly to sanitary, educational, social, and religious influences. At the same time he admitted that legislation has its proper place also in the work of reform. He suggested that it should be employed where at present it is not—namely, for the control of licences to grocers, chemists, clubs, and the older beerhouses. He pointed out that if this is not done a diminution in the number of licensed public-houses would prove of little practical value in the interests of temperance. It is encouraging to know, however, that in Mr. Chamberlain's own city of Birmingham this process of gradually thinning out is being systematically carried on by the local magistracy. To what extent it will prove successful in the reduction of drunkenness remains to be seen. Discussions arise from time to time as to how far the presence of temptation in this form is responsible for the excess which has always been associated with it, yet there cannot be any reasonable doubt that self-indulgence in any form owes not a little in the plan of its development to the calls of temptation from without. Surely this is a matter of common experience. It is

probable that a considerable number of persons, especially young persons, become intemperate, not wilfully or suddenly, but gradually by repeated and scarcely noticed concessions to desire. The lack of opportunity alone would in many such cases be enough to restrain this inclination and thus to prevent the formation of a ruinous habit. This, at all events, is the usual rule in regard to other human weaknesses; doubtless it is the rule with alcohol too. For this reason we can quite appreciate the advantage likely to accrue to the public well-being from the proposed reduction in the number of licensed houses, which has grown out of all proportion to the needs of the population. Temperance reformers have always kept this object in view, though they have not always sought to attain it by the wisest methods. In advising them to follow after it with patience, perseverance, and a due regard for common justice Mr. Chamberlain has done good service for the cause they and he, and, we will add, we ourselves also have at heart.

#### THE SANITARY INSTITUTE.

As will be seen in another column, the meeting of the Sanitary Institute this year was productive of many important papers, not the least valuable of which were those contributed by experts on the quality and quantity of water-supplies. Mr. H. W. Russell of the Berkshire County Council contributed two papers, the first of which related to the prevention of pollution within the Thames watershed and the second to the Thames water-supply and storage. He pointed out in the former paper the vastness of the watershed of the Thames. It comprised an area of over 5000 square miles from Banbury in the north to Haslemere in the south, and from Cirencester in the west to Leigh in the east, and in this area no stream or watercourse was allowed to be polluted by the discharge of sewage or other offensive matter under heavy penalties, supervision being managed by a staff of 18 inspectors. He pointed out the importance of securing the coöperation of local authorities. In the latter paper he maintained that the flow of the Thames was abundantly equal to the drinking requirements of the metropolis so long as provision was made for storage. He calculated that there was ample excess to provide storage for 80 or 90 days' supply for London without interfering with the requisite quantity for navigation and for keeping the channel full and flowing. Dr. H. R. Kenwood laid stress upon the importance of making a careful local investigation of all possible contaminating influences of a given source of water-supply. In the discussion that followed Dr. A. Bostock Hill urged the importance of a full analysis being made, drawing attention to the limits of bacteriological examination and deprecating reliance on a negative result. He rightly observed that the expense of analysis was often a difficulty and thus only a partial examination was often made. It cannot be too frequently insisted upon that a periodical systematic examination is better than anything even although a partial analysis is made, for there is the highest significance in the variations of composition and character of a water-supply. Mr. Thomas Caink, engineer to the city of Worcester, presented some interesting particulars in regard to the relation of typhoid fever to the purity of water-supply. He stated that he found that the typhoid fever rates in towns supplied with filtered river water were much lower, generally speaking, than those in the towns supplied from artesian wells and mountains. On Oct. 18th the annual dinner of the Sanitary Institute took place at the Holborn Restaurant when Sir Francis Sharpe Powell, Bart., M.P. Vice-president of the Institute, occupied the chair. He was supported by Sir William H. Broadbent, Sir William Church, and many well-known medical officers of health. In proposing the toast of "The Sanitary Institute and its

President, the Duke of Cambridge," he alluded to the fact that never was there a time when interest in sanitary matters was more keen than now, and the opportunities offered to the members of the Institute were very great. He rejoiced that the Institute was full of energy, and that this energy was being directed to the public welfare. They had made considerable progress and not the least important direction in which it was made was that which resulted in making the people realise the importance of the application of sanitary measures. Mr. A. Winter Blyth, in responding to the toast, said that they were not only a national society but an imperial society in the best sense of the word. He appealed for the support of a scheme for a suitable building for the Parkes Museum of Hygiene. They had raised already by promise about £7000, but at least 10 times that amount was required if they would see a building erected worthy of the museum and of the cause. There were representatives of several municipal authorities present, amongst them being the mayors of West Ham and Dover, who cordially recognised the great assistance in maintaining the public health which their respective corporations received from their medical officers of health and sanitary staff.

#### BAD MEAT.

ON Oct. 18th Thomas Hale of 244, High-street, Shadwell, was summoned at the Thames Police-court for being in possession of a quantity of bad meat which was intended for human food. Mr. G. H. Young, who prosecuted on behalf of the Stepney Council, stated that the defendant traded as a tripe dresser. On July 22nd Mr. Adams (a sanitary inspector) and another sanitary officer inspected the defendant's premises and found in the preparation room a quantity of diseased meat, such as liver, sheep's tongues, brains, and hearts. They also found three pieces of tripe which were bad. In addition were found spleens and ox cheeks which were bad. Good and bad meat was mixed together. In reply to Mr. Newton, who defended, Mr. Adams stated that no bad article was found in the shop. One of his summonses had been dismissed at that court. He did not know that a chief part of the defendant's business was boiling down food for cats' meat. Mr. D. L. Thomas, medical officer of health, stated that the meat found was unfit for human food. Mr. Newton contended that there was no evidence to show that the stuff found was intended for human food. The defendant went into the witness-box and said that it was quite impossible to tell whether tripe was good for human food until it had been boiled. The meat for human food and that for cats' meat were prepared in the same room. Mr. Dickinson said that the defendant would be fined £25 and costs. Mr. Newton thereupon said that his client would appeal, whereupon Mr. Dickinson is reported to have said, "Then I will inflict the full penalty of £50 and £5 5s. costs, and he may appeal on that."

#### MALTA FEVER.

WE have received a copy of a pamphlet on Malta Fever by Dr. J. J. Curry, captain and assistant surgeon, U.S.V., Philippine Medical Service. The article is a reprint from the *Journal of Medical Research*, Volume vi., No. 1. The first portion is occupied with a report of four cases of Malta fever which were observed in the United States Army and Navy General Hospital at Hot Springs. The patients were soldiers and sailors who had returned from tropical stations. Dr. Curry remarks that the four patients were thought on admission to be suffering from chronic rheumatism. They did not improve under treatment, nor did the change to a favourable climate have any beneficial effect. In spite of treatment for rheumatism and malaria more or less regular recurrences of pain, swelling of the joints, and rise of temperature ensued. The conditions lasted a long time—from

six months, the shortest, to 16 months, the longest of the series. The other prominent symptoms were anæmia, profuse sweatings, and constipation. The clinical history of the cases suggested to Dr. Curry the diagnosis of Malta fever, and the result of the serum test corroborated his suspicion. He therefore believes that Malta fever is by no means as limited geographically as heretofore has been thought, and he is convinced that the disease is widespread in tropical and sub-tropical regions. In the second part of the pamphlet he comments on the serum test in Malta fever, and after describing Professor A. E. Wright's method of performing the test he proceeds to give his own technique which is briefly as follows. Tubes, 7.5 centimetres long and from three to four millimetres in diameter, were made from glass tubing and the bottoms drawn out to a long sharp point. These were sterilised and plugged with cotton. Salt solution suspensions were made according to the method used by Professor Wright. The bacteria were killed by heat at 60° C. for 15 minutes, and 0.5 per cent. of carbolic acid was added. As a routine method one drop of blood serum was mixed with 19 drops of normal salt solution, then equal parts of this mixture and the salt suspension of the culture of the micrococcus melitensis were taken and placed in the small tubes with sterile pipette. This equals a dilution of 1 in 40. A reaction was called positive and complete only when, in addition to the precipitation of the bacteria in the bottom of the tube, the supernatant fluid became clear. Normal blood and the blood of those suffering from other complaints, such as dysentery and malaria, may be used as controls. These macroscopical observations may be confirmed by microscopical examinations of drops of the fluid withdrawn by means of a platinum loop. Dr. Curry does not advance this method as superior or even equal to that described by Professor Wright, but refers to it as a process which may be adopted with success.

#### CALMETTE'S ANTIVENENE.

THE following is an extract from a report by the medical officer of the Bengal-Nagpur Railway in India for the month of August:—

"On the night of the 23rd I was called to see a cooly woman who had been bitten by a large snake supposed to be a cobra. She was said to have been bitten at about 7 p.m. and I did not see her till two hours later. She was then practically moribund, the throat paralysed, and consciousness completely lost. All the symptoms of poisoning by colubrine venom were well marked. I injected a full dose of Dr. Calmette's antivenene, but was not sanguine as to the result, the patient's condition being apparently hopeless. The effect of the remedy was marvellous; consciousness returned in 15 minutes, and I was so encouraged by the result of the first injection that I decided to give another dose of the serum. It acted like magic and within three hours of the first injection the patient was well. Dr. Sen, my assistant surgeon, was present at the time. I have sent the notes of the case to Dr. L. Rogers, the professor of pathology to the Calcutta Medical College, and propose to also send a report to Dr. Calmette, who is, I know, always glad to hear of cases in which his remedy has been used. I am satisfied that in even desperate cases we have in Dr. Calmette's serum a really reliable remedy for the bites of poisonous snakes, and I propose to supply all assistant surgeons with a syringe and some bottles of serum. At present only this place and Chakardharpur are so supplied. I am now convinced that the case reported by me in May would in all probability have been saved had a large dose of the serum been injected and had the patient come under treatment earlier."

The value of Calmette's antivenene is generally recognised and many experiments of great interest have been performed with it. The evidence as to the nature of the substance to which its efficacy is due is very striking. When the correct relative quantities of venom and antivenene are mixed in a test-tube and after a short interval are injected into an animal no toxic symptoms follow. If the venom and the antivenene are injected separately into the subcutaneous

tissue toxic symptoms, varying in amount according to the interval between the injections, will appear; if, however, the venom be injected into the subcutaneous tissue and the antivenene into a vein of the animal no toxic symptoms will result. The facts show that the venom is much more readily absorbed than is the antivenene. It is probable that if a person is bitten and the venom is carried directly into a blood-vessel no injection of antivenene would prove of value, though, of course, it should be tried. The active constituents of both venom and antivenene are apparently proteids. Unfortunately, in most cases of snake-bite, the antivenene is not available in time to prove of use.

#### THE VACCINATION LEAGUE.

THE Vaccination League is an opportune movement. This association has been started, we are informed, to spread a wider knowledge of the benefits derived from vaccination and a better understanding among the general public of the advantages arising from preventive medicine and practical sanitation. The League already counts among its supporters a number of influential laymen interested in the subject, and numerous well-known medical men, including Mr. Hutchinson, F.R.S., member of the recent Royal Commission on Vaccination; Sir Alfred Garrod, F.R.S., Physician Extraordinary to Her late Majesty Queen Victoria; and Professor Charles Stewart, F.R.S., of the Royal College of Surgeons of England. The temporary offices of the League are at 110, Strand, London, W.C., where all information can be obtained from the secretary.

#### THE LEECH MEMORIAL FUND.

THE fund which is being raised to found a memorial to the late Dr. D. J. Leech has now reached the sum of £1230. As it is proposed to close the fund very shortly the committee will be glad if intending subscribers will forward their contributions to the secretary, Dr. E. M. Brockbank, 3, St. Peter's-square, Manchester. We are asked to state that a meeting of subscribers will be held next month to hear the committee's report. Due notice will be given of the date of this meeting and we trust to learn that when it is called the committee will have in hand a sum large enough to found a really substantial memorial. For Dr. Leech must be regarded as a foremost figure in Manchester medicine, and the profession generally owes him a large debt of gratitude for valuable work done both in scientific pharmacology and in practical politics.

#### CONJUNCTIVITIS AND RETINITIS FROM EXPOSURE TO THE X RAYS.

INFLAMMATION of the skin from exposure to the x rays is now well known, but cases of injury to other tissues are very rare. In the *New York Medical Journal* of Sept. 21st Dr. J. W. Sherer has published a case in which conjunctivitis and incipient retinitis were apparently produced by repeated exposure to the x rays. A medical practitioner, aged 29 years, who had been daily exposed to these rays for three and a half years, was seen on Oct. 11th. About six months previously his eyes became sensitive to sunlight and the ocular muscles were unduly fatigued by near work. Slight conjunctivitis had just appeared. Vision was normal. The discs were slightly blurred and the fundi were abnormally red. A 1 per cent. solution of nitrate of silver was prescribed for the conjunctivitis, to which it quickly yielded. When the patient was seen again, on Nov. 10th, desquamative dermatitis, accompanied by bronzing, had appeared on the face—a condition characteristic of the action of the x rays. The eyebrows and eyelashes were almost completely lost. The conjunctivitis had recurred, but was limited to the lower lids. The fundi were much more congested and reddened. The discs were much blurred. The eyelids

were then protected by steel plates with plate-glass windows. The conjunctivitis and retinitis disappeared in about a month. Nine months later the fundi were normal and the eyebrows and eyelashes were growing again and there was only a trace of redness in the conjunctiva. It is of interest that of three cases of cancer in the eye treated by the patient with the x rays in which 75 sittings were given irritation of the organ occurred in only one. In a fourth case in which 37 severe applications were made ulceration of the cornea occurred. Dr. King of Toronto has reported a case of conjunctivitis, loss of eyebrows and eyelashes, desquamative dermatitis, and exfoliation of the hair and nails from the x rays.

#### MEDICAL SERVICE AT ST. PAUL'S CATHEDRAL.

THE annual festival service in connexion with the Guild of St. Luke was held at St. Paul's Cathedral on Thursday, Oct. 17th. There was a very large congregation and a good proportion of the seats under the dome was reserved for those members of the medical profession who attended in their academic robes. The musical portions of the service were sung by the special choir of the London Church Choir Association, under the direction of Dr. H. Walford Davies, organist of the Temple Church and honorary conductor to the association. The setting of the Magnificat and of the Nunc Dimittis was Stainer in B flat; the anthem "Lead, kindly Light," was also sung to Stainer's setting, the exquisite rendering of which (as, indeed, the whole service) reflected the greatest credit upon conductor and choir alike. The lessons, which had special reference to the healing art, were read by the Rev. W. H. H. Jervois, Vicar of St. Mary Magdalene, Munster-square, W., and the prayers were intoned by Minor Canon Tapsfield. Canon Gore was the preacher, and in an eloquent sermon, founded upon Eccles. ix. 17, he drew an analogy between the priesthood of theology and the priesthood of medicine, both having to deal largely with ignorance and sin, men frequently looking to the physician to escape the penalty of their misdeeds. He urged his hearers to live up to the responsibilities of their profession, and instanced the life of the late Sir James Paget as one worthy of emulation.

#### INFECTION AFTER DEATH.

WE have received a letter from a correspondent, presumably an American, stating that in his opinion there is a source of danger in the propagation of disease which in this country is entirely overlooked—namely, infection from the bodies of those persons who have died from an infectious disease. To remedy this he suggests that all funeral carriages of whatever class should be lined with wood or some material such as lincrusta, so that the inside of the vehicle could be easily washed. The upholstery fittings should be so arranged that they can be easily removed. Further, he urges that the undertakers' clothes and those of all the attendants should be disinfected and the "men wash with disinfecting soap." He concludes by saying that "this system is not generally adopted in America, but where it has the results have been most satisfactory. The public run great risks in coming in contact with undertakers without this precaution." It would be interesting to know the data on which our correspondent bases his conclusions. We believe that he has immensely exaggerated the dangers which he mentions, and we are not aware that disease has ever been shown to spread in the manner he suggests. We should certainly advise, in the case of death from an infectious disease such as small-pox, that the body be enveloped as speedily as possible in cloths wrung out in some disinfectant solution, and that the coffin should be closed early; these precautions having been taken we do not

agree with our correspondent that "the public" would run great risks in coming into contact with those whose duties necessitate their removing dead bodies. A plan such as we have suggested is particularly important in dwelling-houses where many people are crowded together. Amongst certain classes it is the custom to ask their neighbours to view the body of the deceased; such a custom cannot be too strongly deprecated. In some districts capacious mortuaries have been established for the reception of dead bodies until arrangements are made for their interment and certainly such a course should be made obligatory in those cases in which the body has to be retained in rooms where surviving members of the family have to sleep or to live.

#### SMALL-POX IN LONDON.

DURING Monday, Oct. 21st, 10 fresh cases of small-pox were admitted to the hospitals of the Metropolitan Asylums Board; during Tuesday, Oct. 22nd, there were five fresh cases; and during Wednesday, the 23rd, there were five fresh cases. The Local Government Board have issued a circular to the Metropolitan Boards of Guardians saying that "in view of the outbreak of small-pox in London they think it desirable to draw the attention of the guardians to the circular letters addressed to them by the Board on Feb. 21st, 1893, and July 30th, 1895. Portions of these letters and the remainder of the circular run as follows:—

There is no doubt that there is considerable risk of small-pox being spread by means of casual paupers, and the Board trust that the guardians and their officers will take such measures as will tend, as far as possible, to diminish this danger.

The Board must, at the same time, observe that when a case of small-pox occurs, whether in the casual wards or in the workhouse, and, indeed, in times of small-pox prevalence generally, it is, in the opinion of the Board, of the greatest importance that measures should without delay be taken to secure, as far as practicable, vaccination or re-vaccination of the other inmates, so far as the medical officer may consider needful. Care should especially be taken that the officers and other persons employed in the casual wards or brought into personal contact with a case of small-pox, if they have not within a sufficiently recent period been either successfully re-vaccinated or had small-pox, should at once be re-vaccinated as a protection against the disease.

The Board request that whenever there is an occurrence of small-pox or any other dangerous infectious disease in a workhouse, including any case occurring in the casual wards, a report of the fact may be made to the Board by the medical officer, the report being accompanied by a statement showing for each case the date of attack and source of infection, so far as may be known. This report should be made in addition to the immediate notification of the case to the medical officer of health.

In their letter of July 30th, 1895, the Board further expressed a desire that the medical officer would, in reporting any case of small-pox as requested above, state what provision had been made for preventing the spread of the disease among the inmates and for the isolation and nursing of the patients whilst they remain under his charge. The Board wish that this desire should be complied with, and that in the case of small-pox occurring the medical officer should fully inform the Board of such measures as may be taken with regard to vaccination and re-vaccination.

I am directed to request that the guardians will be good enough to place a copy of this circular in the hands of the medical officer, the master of the workhouse, and the superintendent of the casual wards.

I am, Sirs, your obedient servant.

S. B. PROVIS, Secretary.

This circular is by no means unnecessary. Boards of guardians like the London School Board are popularly elected bodies, and their members go upon the principle of conciliating what they call "the people," meaning thereby not the hard-headed common-sense working-man and ordinary middle classes, but the fools and faddists of every degree. Hence the action of the London School Board in putting every obstacle in the way of public vaccinators exercising "tyranny" and "compulsion," or, in other words, looking at a child to see whether it may or may not be ill. Hence, too, the pigheadedness shown by the Hackney Board of Guardians with reference to the same matter. As to revaccination, it is of little use for the Local Government Board to say that care should be taken that certain persons should at once be revaccinated, when the Government have acted in the regrettable way that they have as regards this very question of revaccination. Lord Harris, on behalf of the Government, practically promised that a Bill dealing

with this subject would be brought in during the session following that in which the Vaccination Bill of 1898 became law. From that day to this the Government have never said a word as regards revaccination.

#### THE ELECTION OF DIRECT REPRESENTATIVES UPON THE GENERAL MEDICAL COUNCIL.

Mr. Victor Horsley, Mr. George Brown, Dr. S. Woodcock, and Mr. George Jackson are announced to speak at a meeting to be held to-day (Saturday) at 3.30 P.M. at Newcastle, Mr. Rutherford Morison in the chair. Dr. J. G. Glover was also invited to address the meeting, but owing to indisposition will be unable to be present.

#### UNIVERSITY COLLEGE MEDICAL SOCIETY.

At the opening meeting of the University College Medical Society held on Oct. 16th at University College, London, the chief event of the evening was an interesting discourse by Mr. Christopher Heath, entitled, "Fifty Years of Medical Life." The presence of many ladies in the audience supplied Mr. Heath with an opportunity which he did not fail to utilise of drawing attention to the great change that had taken place in the medical world concerning the question of the admission of ladies into the profession of medicine. Referring to his experience in America a little while back when he delivered the Lane Lectures in San Francisco Mr. Heath said that the lady students were quite equal to the men in aptitude and attention. He remembered the great controversy as to whether women should be allowed to study medicine at all, and he recalled how Miss Garrett, who was now well known as Mrs. Garrett Anderson, was in great difficulty as to where she could study, and she applied, among other places, to Westminster Hospital, where he was then attached, to ask if she could receive her medical education at that institution. The staff held a solemn meeting, presided over by an old bachelor, and the unanimous opinion arrived at was that they were unable to comply with the request because if they taught ladies they would not be able to teach gentlemen. At the present time the School for Ladies at the Royal Free Hospital was justly recognised as a great success. Mr. Heath concluded his reference to lady doctors by describing how he went over a certain infirmary where one of the medical posts was held by a lady. In answer to his inquiries he was told that she had the entire care of all the female patients, did all the dispensing, and kept all the books. That seemed rather an unfair division of labour and appeared a somewhat unjust way of treating a lady practitioner. Mr. Heath was only 16 years of age when he persuaded his father that he had had enough of school and entered at King's College Hospital. He had to wait, however, till he was 21 years of age before qualifying. In those days there was no entrance examination before becoming a medical student and he recollected how profoundly ignorant some of the men were. At the present day, of course, students had to pass a preliminary examination of a reasonable character, but he was afraid in the hurry and rush of passing the numerous examinations now imposed that men quite forgot that there were such things as British classics. Medical students, he said, did not read Dickens, they did not even know Thackeray, and as for studying Shakespeare, that was out of the question. He thought it was a pity that that kind of culture had entirely gone out of fashion. Nowadays, if a man knew a little Latin, a little mathematics, and had a slight smattering of French and German, he at once became quite a superior person. In regard to learning anatomy there were no sections in his early days such as there were now in every museum in London, and it was rather a struggle in those days to learn anatomy. There was one feature of his student days which Mr. Heath said he regretted had been

altered and that was that the students were then urged to attend the hospital practice every day. Now until a man had passed his anatomy and physiology he was forbidden to go into the wards. Mr. Heath took credit for introducing an improvement in the manner of tying ligatures, for changing the description of the fibula which was formerly described as a three-sided bone, and for showing how to stop hæmorrhage in operations on the tongue. No one, said Mr. Heath, had yet arrived at the end of his instruction; his studentship, he was happy to say, was still going on although he had completed 50 years of medical life.

#### EARL GREY'S PUBLIC-HOUSE TRUST MOVEMENT.

PERHAPS no movement in favour of temperance has evoked a more intelligent interest than that conducted by the Public-house Trust Association. The title does not suggest a revolutionary or a Utopian inspiration, and the plan of operations as described in the first report of the association is deliberate and businesslike. Its great aim is to eliminate private interest from the retail trade in liquor and to place that trade in the hands of limited companies which shall conduct it on temperance principles as a public trust. The return to shareholders is limited to 5 per cent. and all surplus revenue is devoted to objects of local or national benefit other than those chargeable to the rates. Managers are appointed to the public-houses owned by the association and are paid a fixed salary. No profit on intoxicants is allowed to them, but they receive a percentage of profit on the sale of food and non-intoxicants. These public-houses being strictly restaurants are bound to supply non-alcoholic beverages and food as well as beer, wine, or spirits, all of guaranteed quality, and they must be managed with full consideration for order, cleanliness, and the public comfort. Drunkenness will not be permitted and the licensing laws for the regulation of public-houses will be strictly enforced. No attempt will be made to push the sale of alcoholic drinks, but every means will be used to present food and non-intoxicants in such a way as to encourage their consumption. The association proposes to accept all new licences which may be issued and to undertake the control and administration of all public-houses thus established. Many land-owners have also placed licensed premises on their property under the control of the association and it has been found that existing licences can be purchased for its purposes from time to time on favourable terms. As illustrating the share taken by local self-help in such transactions we may mention that a public-house at Cowdenbeath, Fifeshire, has been acquired by the miners and workmen of this district with the help of the association and in conformity with its objects. Already 14 branches of the association have been formed, six in England, six in Scotland, one in Wales, and one in Ireland. The People's Refreshment House Association, moreover, an older and allied organisation, manages 14 licensed houses on similar principles. It is intended that a Public-house Trust Company shall be formed in every county and shall be represented on a central executive council. The progress made so far in this direction is certainly encouraging and we can only regard this fact as one of the surest evidences of an increasingly healthy national opinion on the whole subject of alcohol in relation to temperance. It is significant that several of our colonies have set up a closely similar ideal in dealing with this question. The recently founded South African Alliance which has its headquarters in Johannesburg looks to Government control in one form or another and its substitution for private interest in the retail trade in intoxicants as the only generally applicable means of temperance reform. South Australia goes a step further and would have the trade owned,

regulated, and carried on by the Federal Government. The Natal Legislature has passed a measure enabling any borough to acquire the exclusive right of retailing intoxicating drinks within its limits. The plan suggested by this enactment comes nearer to that of the Public-house Trust Association than either of the others, and we cannot but think that in both cases administrative independence of State control is an advantage alike to the State and the reforming societies. In young communities the importance of this point may not be easily realised, but there comes a time to all growing States when expansion brings with it great extension of political responsibility, and then it is felt that social questions are best entrusted to the hands of municipal or other local councils. Such movements as that of temperance reform should rather be fostered than directed by the State, but they undoubtedly deserve all reasonable encouragement. This we do not doubt will be accorded alike to the efforts of the Public-house Trust Association and of the different colonial alliances.

#### THE AFTERNOON LECTURES AT THE BROMPTON HOSPITAL.

THE lectures to be delivered during the coming winter session at the Brompton Hospital for Consumption and Diseases of the Chest are of particular interest. The opening lecture was delivered on Wednesday last by Dr. Theodore Williams who took as his subject "The Prognosis of the Different Forms of Pulmonary Tuberculosis" and treated it with the thoroughness that might be expected from his long experience. These lectures at the Brompton Hospital are free to all qualified medical practitioners as well as to the students attending the practice of the hospital, but we doubt whether their value is sufficiently recognised by the medical profession. As illustrative of the lectures the most valuable clinical material is shown, and the special points of diagnosis are demonstrated by men who have made exhaustive study of their subject. The treatment of phthisis is a matter of first importance to all medical practitioners, and we cannot help being surprised that the opportunities for learning new things and for refreshing acquaintance with old things that are offered by the lectures at the Brompton Hospital are not more freely taken advantage of. Very large audiences could hardly be expected, because the medical profession is a busy one, but we certainly think that the lectures at Brompton might receive more support than they do.

#### PAUPER CHILDREN AND CLEANLINESS.

ACCORDING to the *Daily Telegraph* the gentleman charged with the periodical inspection of Hendon Workhouse has made certain suggestions to the board of guardians as the result of a recent visit to which the board, through its chairman, has pledged itself to give careful consideration—suggestions which are worthy of the consideration of similar bodies throughout the country. He recommends among other things that each child in the workhouse should be supplied with a separate towel, toothbrush, hairbrush, and comb, and that they should all be provided with night-dresses. He also advises that a dentist should be engaged to examine and attend to the children's teeth once in every quarter. The shock of such innovations, had they been made on behalf of *Oliver Twist*, would have brought Mr. Bumble's career to a premature close to the disappointment of novel-readers, but they are really sanitary precautions rather than the pampering of pauper children, many of whom will probably regard them as irksome additions to the discipline which rules their lives. The common use of towels, hair-brushes, and combs must obviously promote the spread of those epidemics which are not easy to prevent altogether.

where children are congregated, while the need for use of the toothbrush and the visit of the dentist are equally real. It is well known that unsound teeth constitute one of the principal causes of the rejection of recruits for the army and navy, while the necessity for the precautions taken on enlistment has been emphasised by the requests for pocket mincing machines for our soldiers and sailors engaged in the South African campaign. Soldiers and sailors are of course not the only section of the community to whom inability to masticate hard foods causes inconvenience and ill-health in after life, which inability can when young would minimise or prevent.

#### LONDON FOGS.

In the report of THE LANCET Special Analytical Sanitary Commission on Smoke Prevention and Perfect Combustion which was published in THE LANCET of Nov. 25th, 1898, p. 1326, appears the following sentence: "If this enormous increase [of gas] can be successfully grappled with at a single day's notice and maintained for several days (it is often only a few hours' notice for there are no means of ascertaining the precise moment when fog appears or when the temperature will suddenly fall), it is evident that even the existing plant, both manufacturing and distributing, is equal to the increasing requirements necessitated by the application of gas for purposes other than those of lighting." Those remarks were made in connexion with the proposal to substitute gas for coal for domestic heating purposes. The report referred to related to an inquiry undertaken to show that the introduction of gas as a general heating agent was not only practicable, but that if a system of gas-heating could be universally adopted one of the worst factors concerned in the production of smoke and fog in the metropolis would be overcome. In other words, the inquiry was undertaken in the interests of public health. Since the publication of this report it just happens that the severity and frequency of London fogs have steadily diminished according to the meteorological authorities who are inclined to attribute this fact to the increasing use of gas for heating purposes. Apparently the public health aspect of the matter has never appealed to our public authorities sufficiently to arouse them into an active state of inquiry directed to the suppression of the smoke evil, but an inquiry is now promised which has been prompted, oddly enough, by the representations of electric and gas-lighting companies. It might be thought that it was congenial to the interests of the directors and shareholders of public lighting companies that fog should remain. The demand for artificial light is greater than ever, chiefly on account of the enormous expansion of the inhabited areas in and around the metropolis. The supplying companies can cope readily enough with this demand in normal times, but on the advent of sudden darkness, as by fog, of which they have no means of obtaining warning, their resources, as many of our readers to their discomfort and inconvenience know too well, are strained to the utmost. And this fact has led the companies concerned to appeal to the Meteorological Office for a system by which special forecasts or warnings of the approach of fogs could be issued to them. There are doubtless a good many people in addition to electric supply and gas companies who would gain by being put in touch with warnings of this kind. It matters little by what channel an end is obtained or who attains it so long as the result is good and of service to the country. We had hoped that the question of London fogs would have been seriously approached from the public health standpoint, but that it is going to be approached from the standpoint of expediency does not after all matter, for the inquiry is calculated to add to our knowledge of fogs and their formation, and recommendations will surely suggest themselves as the outcome

of the inquiry as to the steps that might be taken to minimise the evil. We recognise the good work being done by the Coal Smoke Abatement Society, a work that is only imperfect for the want of funds. The Meteorological Office have communicated with the London County Council, and the General Purposes Committee have practically agreed to coöperate with the meteorological authorities. The subject of inquiry will be the occurrence and distribution of fogs in the London district and their relation to other atmospheric and local conditions. It is now proposed: "(1) That a gentleman of suitable scientific qualifications be engaged by the Meteorological Council for a limited period to formulate instructions and a scheme of observations and to conduct the investigation; (2) that the observations be taken at the various fire brigade stations and by men of the Fire Brigade, and also if it can be so arranged at other institutions of the London County Council; (3) that the returns be sent from the various stations and from any other institutions selected directly to the Meteorological Office; (4) that the Meteorological Council do arrange with the police authorities for observations to be taken at selected positions outside the County of London; (5) that all responsibility as to the conduct of the investigation and any published results of such investigation do rest with the Meteorological Council; (6) that a copy of the complete returns and 12 copies of a report thereon by the Meteorological Council be supplied to the London County Council; and that the London County Council do contribute a sum of £250 for the investigation." It is reported that these proposals, which were accepted by the London County Council at its weekly meeting held on Oct. 23rd, represent a satisfactory and practical arrangement and that the Fire Brigade Committee will raise no objection, and that the chief officer of the Fire Brigade is prepared to conduct the work also as far as the brigade is concerned, provided that the instruments intended to be used for the observations are the ordinary hygrometric instruments, such as are used in the Royal Navy. We should like to add one other recommendation and that is, that the officers of the Coal Smoke Abatement Society, presided over by Sir William Richmond, should be asked to give their assistance in this matter. We are sure that they would be perfectly willing to do so, and they are in possession of interesting and valuable statistics germane to the inquiry. The results will be looked forward to with interest and everybody will wish the inquiry to be brought to a successful issue, so that our electric lighting and gas companies need not be worried to meet the demands for extra light necessitated by the onset of fog, and that some means will be found by which the formation of black stifling fogs may be to some extent prevented. Mists are inevitable in this climate in the winter, but it should be an offence everywhere to blacken them with smoke. Artificial light is a necessity, but it is as nothing compared with the necessity of pure air and an undarkened day.

#### STATE CHILDREN IN AUSTRALASIA.

A PAPER read before the State Children's Association by Miss Hilda Martindale gives an interesting account of the methods of dealing with orphan and neglected children in South Australia under the State Children's Act of 1895. A council consisting of six ladies and six gentlemen has been appointed with power, subject to the approval of the Governor, to provide and to supervise institutions for the care of State children, to board out and to grant licences, and to control lying-in homes, funds being voted by Parliament. The children thus provided for are those destitute, neglected, or convicted. Any constable may without a warrant bring any child who appears destitute or neglected before the justices, who may then order him

to be sent to the receiving depôt at Adelaide, where several cottages are provided for the purpose. A room is set apart at the office of the council where the magistrate attends to deal with neglected children and juvenile offenders, the parents being summoned to be present. Thus the children do not come in contact with the police-courts or with paupers. The justices can order a child to be detained at an institution till the age of 18 years. In June, 1900, the department had control of 1248 children, of whom 1016 were either boarded out, placed at service, or adopted; 57 in the receiving depôt; 12 in hospitals or in asylums for the blind or imbecile; and 125 in reformatory homes. One of the most important differences between the legal provision for destitute children in South Australia and that in England appears to be the difficulty which is met with by the Poor-law guardians among us in dealing with the "ins and outs," or children removed from schools by pauper parents for their own purposes—a practice which frequently cancels any effort in training to habits of industry and thrift. The provision of receiving depôts for children apart from the workhouse, and special magisterial courts for dealing with juvenile cases, and the power of detention up to the age of 18 years in the case of children of unworthy parents, suggest reforms that might well be introduced into this country by the Local Government Board. We think, however, that the methods of the Australian courts should be improved by the requirement of a medical examination in every case before commitment; the fact that 1 per cent. of the children received are placed in hospital or asylums shows that "defective children" are as frequent in Australasia as among our own population.

#### THE DIRECTOR-GENERAL AND THE DEPUTY DIRECTOR-GENERAL OF THE ARMY MEDICAL SERVICE.

THE King has approved of the appointment of Surgeon-General W. Taylor, C.B., to be Director-General of the Army Medical Service, and on the retirement on Dec. 31st of Surgeon-General H. S. Muir, C.B., Lieutenant-Colonel A. Keogh, C.B., will take over the duties of Deputy Director-General, with the temporary rank of Surgeon-General. Surgeon-General W. Taylor, C.B., joined the Army Medical Staff in 1864 as assistant-surgeon; he became surgeon in 1873, surgeon-major in 1876, brigade-surgeon in 1890, surgeon-colonel in 1895, and surgeon-major-general in 1896. He served with the Jowaki Afridi expedition in 1877, receiving the medal, and with the Burmese expedition in 1885-86 on the staff of the Commander-in-Chief in India, for which he was mentioned in despatches and received the clasp. During the Japan and China war in 1894 he was attached to the headquarters of the Japanese army and received the Japanese war medal. He served with the expedition to Ashanti under Sir Francis Scott in 1895 as principal medical officer with the force, and for his services on that occasion he was promoted to surgeon-general and was granted the Queen's Star. In the Soudan campaign under Sir H. (now Lord) Kitchener, in 1898, he also served as principal medical officer and was present at the battle of Khartoum. He was mentioned in despatches and received the distinctions of C.B., of the Medjidie (second class), as well as the British medal, and Khedive's medal and clasp. Lieutenant-Colonel A. Keogh was a member of Mr. Brodrick's Committee which was appointed to consider the reorganisation of the Army Medical Services. He entered the service in 1880 and reached the rank of lieutenant-colonel in 1892 and brigade-surgeon-lieutenant-colonel in 1900. He served in South Africa with the rank of colonel, and for his services there was made a Companion of the Order of the Bath. We congratulate these gentlemen on their appointments and the department upon having secured good men to do the

arduous work that lies before it. Nor would we lose the opportunity of saying a few words of adieu to the late Director-General, Surgeon-General J. Jameson, C.B., and the retiring Deputy Director-General, Surgeon-General H. Skey Muir, C.B. Upon Surgeon-General Jameson, who was throughout ably assisted by Surgeon-General Muir, was thrown all the responsibility of preparing the medical arrangements for the South African war, and, as far as the methods of the War Office and the exigencies of actual campaigning allowed, his enormous labours were successful. He has so far gone unthanked, but he may be certain that his professional colleagues know the value of his work and will not allow the public to forget it.

#### THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Cape of Good Hope, received at the Colonial Office on Oct. 17th, states that for the week ending Oct. 12th there were no cases of plague in the Cape Peninsula. At Port Elizabeth the cases were: coloured persons, 1; Chinese, 1; natives, 1. The deaths from plague were as follows: Cape Peninsula, 0; Port Elizabeth, 1 (a European). The area of infection remains unchanged. There were no cases of plague in persons under naval or military control. As regards the Mauritius a telegram from the Governor, received at the Colonial Office on Oct. 18th, states that for the week ending Oct. 17th there were 57 cases of plague and 36 deaths.

#### DISCRIMINATION IN CHARITY.

DR. T. D. ACLAND is to be congratulated on the prompt and efficient steps which he took to discover the circumstances in which Mr. William Dyer Frazer, an old pupil of his, believed by him to be in South Africa, appeared to be soliciting alms from an address at Brighton. As a sequel to Dr. Acland's investigations, one Robert Wilson was speedily haled to the police-court, charged with personating Mr. Frazer, and was committed for trial. The trial took place at the Old Bailey on Tuesday last, and Robert Wilson, ex-postman, was sentenced to three years' well-deserved penal servitude. We congratulate the Medical Defence Union, who undertook the prosecution, on the result. The prisoner was shown in the evidence to have obtained several sums of money from medical men by like fraudulent methods, and was certainly unfortunate in the selection of the last intended victim to whom he addressed himself, for in addition to the personal acquaintance and interest taken in Mr. Frazer by Dr. Acland, Sir William Mac Cormac was able to show a letter which he had received to a brother-in-law of the supposed mendicant, Mr. H. C. Crouch of 55a, Welbeck-street, London, W.; but in any case the course he was pursuing was bound in the long run to lead to detection. Medical men are so frequently the victims of impostors that it may not be out of place to point out to them the possibility as well as the wisdom of making inquiries where persons claiming to be members of their profession make this a reason for demanding their sympathy and assistance. The career of the future medical practitioner is one with which many are necessarily acquainted long before his name appears upon the Medical Register, and every stage of it is recorded, while from the date of his registration as long as he continues to practise his life is lived more or less in contact with his professional brethren and before the eyes of the public. Inquiry is therefore almost always possible, and although prompt attention to the request made may at first seem the only way to relieve pressing need the truest kindness may be that of him who takes the trouble to learn all the facts which have given rise to the appeal before him. To relieve effectively where real need exists is to exercise charity; to give indiscriminately without taking further trouble in the matter is at

best to apply a palliative that is no remedy, while at the worst it rewards imposture.

#### VACCINATION PROSECUTIONS IN LEICESTER.

ON Wednesday last the Leicester borough bench dealt with proceedings instituted by the vaccination officer of Leicester against Mr. Herbert Moore, the parent of an unvaccinated child, under Section 29 of the Vaccination Act of 1867. In defence an elaborate argument was set up, which rested mainly upon two contentions, the first that the vaccination officer should have received the instructions of the board of guardians before taking action, and the second that it is essential to the case for the prosecution under this section that the fact of the public vaccinator having visited the home of the child and having offered to vaccinate should be proved. The justices by a majority decided in favour of the prosecution and imposed a penalty, whereupon the defendant's counsel asked that a case should be stated for the opinion of the High Court. This application was acceded to by the bench, and the result of the appeal will be watched with interest. The practice of raising technical objections such as these before magistrates has become extremely common, and in some places has reached such a pitch that, however straightforward the facts of his case may be, the vaccination officer is obliged to appear by counsel or solicitor, with the result that the ratepayers are saddled with much unnecessary expense, while quite a number of witnesses, professional and other, who can ill spare the time, are constantly compelled to be in attendance. The sooner, therefore, that these questions are authoritatively decided by the courts and the proper procedure determined by binding authority the better for all concerned. Meanwhile, we trust that the Local Government Board will not relax its efforts to obtain compliance with the law in Leicester. Recent letters to local papers, we observe, protest loudly against "tyranny," "coercion" and the like, but it is hard to understand what tyranny can be involved in requiring obedience to the existing vaccination law when certificates of exemption can be had at Leicester practically for the asking. Anti-vaccination leaders in Leicester at present work hard to dissuade parents from taking out these certificates—a fact which suggests that they themselves realise the increase in vaccination that is likely to result as soon as the citizens come to understand that they cannot escape from the legal obligations which the Vaccination Acts still impose upon them.

#### SMALL-POX AMONG HOP-PICKERS.

IN a report on an outbreak of small-pox within the borough of Finsbury, Dr. George Newman, medical officer of health, states that 10 cases occurring at the end of September were attributable to infection derived from 'some hop-pickers' huts on a farm at Northlands, Bodiam, Sussex. We have already referred to the incident in our issue of Oct. 5th, p. 924, but Dr. Newman's report gives further details as follows. A girl from Finsbury who arrived at this farm on Sept. 1st was taken ill on Sept. 10th; spots appeared on her face on Sept. 13th, and on the 15th she returned to London, where she was seen on the 16th and 17th by a medical man who was reported to have said that she was suffering from chicken-pox. She lived in Thomas-street and on Sept. 18th a woman in the same house was notified as suffering from small-pox. Dr. Newman infers that both the woman and the girl contracted small-pox at the end of August. On Sept. 23rd and 24th three children of a hop-picker fell ill on the farm at Northlands, and on being brought to London they were found to be suffering from small-pox. On visiting the home of these people in Vineyard-walk on the 26th Dr. Newman was told that there were several similar cases at the farm, and that all

the hop-pickers in that district were returning to London that night. The South-Eastern Railway Company having been communicated with afforded facilities for examining all the hop-pickers arriving during the afternoon and evening at Charing-cross, Waterloo, Cannon-street, London Bridge, and New Cross railway-stations. Hundreds of these passengers were examined by a party consisting of Mr. Shirley F. Murphy, Dr. W. H. Hamer, Mr. Spon, Mr. Gabb, Mr. Evan Jones, and Dr. Newman. At Cannon-street station at a late hour Mr. Evan Jones was successful in waylaying five-cases of small-pox, all belonging to Finsbury, and these patients were immediately removed to the hospital ships.

#### "PAPER AS A WRAPPER."

OUR attention has been drawn to an article in the *British Baker* on "How Small-pox and Other Diseases are Spread," in which the writer very properly condemns the practice of wrapping up articles of food such as loaves of bread in any sort of paper without reference to its previous history. It is stated in particular that shavings taken from a biscuit tin have been recognised as having been cut from bookbinders' parings and other secondhand paper that has been handled and exposed to contamination. "Waste paper finds its way to paper and rag stores where it may have all manner of abominations in close proximity; it is then picked out, cut into shavings, and we next see it placed on the top of biscuits to fill up the tins." We heartily agree with the *British Baker* that this highly objectionable process should be stamped out by the employment of clean and specially treated shavings. It may be noted that we ourselves pointed out in THE LANCET of June 22nd, 1901, p. 775, in an article entitled "Paper as a Wrapper," that very little discrimination, as a rule, was exercised as to the quality or kind of paper used for the purpose of wrapping articles of food. Although we were able to show that the newspapers of London so frequently used for wrapping up articles of food were free from irritants or poisonous mineral substances or dyes, yet we wrote that "the ubiquitous organism is bound to be present and not unlikely it may be a pathogenic one considering the dirty environment under which waste newspaper is frequently to be seen." We are glad to note that others are taking up this important question.

MR. MALCOLM MORRIS, the secretary-general of the British Congress on Tuberculosis, was entertained at the Café Royal recently by the secretaries of committees and sections, under the chairmanship of Mr. Cutler, honorary secretary of the architectural museum. Fourteen out of 19 secretaries were present, and the opportunity was taken to present Mr. Morris with a dining-room chiming clock as a memento of his labours.

THE Lettsomian Lectures of the Medical Society of London will be delivered by Mr. A. Pearce Gould on Feb. 17th and March 3rd and 17th, 1902, at 9 P.M., the subject being, "Certain Diseases of the Blood-vessels." The annual oration will be delivered on May 26th, 1902, by Dr. Stephen Mackenzie.

WE understand that Sir Joseph Dimsdale, M.P., the Lord Mayor Elect, will preside at a meeting to be held at the Mansion House in January to aid the appeal of Guy's Hospital for a renewal of public support. A sum of £180,000 is required to meet the cost of renovation and extension.

THE KING has commanded that in future the Dental Hospital of London shall be known as the Royal Dental Hospital of London. The new hospital is now finished and in full working order and funds to reduce the debt on the

building fund are earnestly solicited and may be sent to the secretary.

THE annual distribution of prizes at St. George's Hospital Medical School will be made in the board-room of the hospital by the Right Honourable the Lord Chief Justice of England on the afternoon of Monday next, Oct. 28th.

## WATER-SUPPLIES AND RIVER POLLUTION.

A CONFERENCE on Water-supplies and River Pollution organised by the Sanitary Institute was held on Oct. 16th and 17th at St. Andrew's Hall, Newman-street, London, W. The Conference was numerously attended by representatives of sanitary authorities from all parts of the kingdom. Under the chairmanship of Professor H. ROBINSON the Conference discussed on Oct. 16th the Sources of Supply and Watershed Areas, Storage, and Town and Village Supplies. The first three papers on the programme were taken together for discussion.

The first paper was by Mr. J. PARRY, M.I.C.E., on the Protection of Watersheds. The author's conclusions were that if water-supplies were to be protected against the risks of all pollutions prejudicial to health which modern science had revealed the sources of supply, including the entire area over which rain was collected, must be owned by the authority responsible for the waterworks and be managed solely in the interests of the water-consumers. These drainage areas need not be left barren; they could be used for sheep-farming, plantations, and deer parks which would give some return for the money spent in purchasing the drainage area and would satisfy every reasonable demand in regard to the purity of the water-supply.

Dr. E. C. SEATON (medical officer of health of Surrey) contributed a paper on the Protection of Underground Sources of Public Water-supply. He divided the subject into protection against waste and protection against local contamination. He detailed what the Surrey County Council had done in preventing attempted encroachments on local resources for the purpose of insuring a water-supply for London and in adjusting the various needs of the different localities in the county. On the subject of contamination the Maidstone and Worthing experiences aroused uneasiness concerning the safety of certain underground sources of supply. The term "nuisance dangerous or injurious to the public health" should be extended in its application.

Mr. CLAYTON BEADLE communicated the third paper, entitled, The Rights of Underground Pumping in Relation to Flow of Neighbouring Streams. His paper consisted of observations by Mr. Beadle on the depletion for the last 20 years of the river Cray in Kent by the pumping stations at Orpington and Crayford.

Professor ROBINSON, in opening the discussion, said that the causes of pollution could be obviated in a more or less degree. Artificial waste of water should be stopped and natural waste should be utilised.

Mr. R. H. WYRILL (Swansea) considered that better supervision of the catchment area was necessary.

Mr. J. E. BUSH (Melksham) urged that representative authorities should control the water-supply areas. The water-distribution should be in the hands of the county council and pumping-stations for purposes of private and commercial profit should not be allowed.

Mr. W. J. BURGESS (Liverpool Water Committee) said that in many towns the purity of the water-supply was not paid sufficient attention to. It was rarely or never possible to adequately prevent the contamination of wells near sewers and rivers were not much better. The condition of the London water-supply was a danger to the inhabitants of the metropolis and afforded a bad example to other places. Water-supplies should be under the control of public bodies.

Mr. CASTLE (Garfield, Yorkshire) described how the sinking of a pit was a source of waste of water by draining almost every well in the district.

Mr. J. SIDDALLS (Tiverton), who represented a rural district, explained that there should be some new authority to adjust the divergent interests between the large urban and the rural districts. Local wants should be supplied before those outside the district were afforded opportunities of securing water.

Mr. J. FREER (Leicestershire County Council) agreed that the inhabitants of any particular catchment area had a prior right to the local water-supply. What was required was some authorised body who could deal with the watershed areas.

Mr. T. R. SMITH gave some facts concerning the control by the local authority of Kettering over their water area.

Mr. F. VERNEY (London County Council) said that the catchment area for the metropolitan water-supply was becoming more and more tainted every year through the increase of population and high farming. The supply of water for London should be obtained from some source not nearer than the mountains of Wales where absolute purity could be relied upon. London water was well filtered but the public health should not depend upon that.

Several speakers from the body of the hall protested against attacks on the purity of the London water-supply.

Mr. LYONS WALCOTT (Middlesex County Council) urged that districts near large towns required protection for their water-supply.

The next paper was on Rainfall and Population of England and Wales in Relation to Water-Supply, by Dr. H. R. MILL. Dr. Mill concluded that there was rain enough to satisfy the demands likely to be made for water. He did not think that the possibility of failure in supply was at all in question. The cost, however, would be serious and might be prohibitive. Economy was therefore necessary and waste of the water-supply should be carefully guarded against. It was the abuse and not the use of the water that caused anxiety. No district should be able to claim for its own all the rain-water that fell in it.

Mr. W. HODGSON (Cheshire County Council) said that the county councils were not using all the powers they already possessed and therefore further legislation should not be demanded.

Dr. A. GREENWOOD contributed a paper on the Desirability for Reports on the Water-supply of each County. He pointed out that it might be necessary in consequence of increased population to supply one district with water from another district, hence the importance of a full knowledge of the available supply in the various districts.

Dr. W. WILLIAMS (medical officer of health of Glamorganshire) communicated a paper on the Rivers of Glamorganshire, with Remarks on the Rivers of Adjacent Counties. He considered that in Glamorganshire greater progress would have been made in the purification of the rivers if the Local Government Board had not insisted under all circumstances on the hard-and-fast rule of land treatment in addition to artificial filtration. It was also important to have as many joint sewerage districts as possible. No crude sewage should be discharged into the sea or into tidal rivers and estuaries unless careful experiments were made with different floating materials to determine the directions of the currents at various conditions of the tide. Health laboratories should be established for the examination of effluents, of refuse, and of materials discharged into rivers, and these should be under the control of the county councils.

The next paper for discussion was by Dr. J. C. THRESH (medical officer of health of Essex) on Water-supply to Isolated Cottages and Small Groups of Cottages. His opinion was that power should be given for the sinking of a well in a central position and the cost should be charged on all owners within a certain radius whose tenants had not a wholesome supply. Every aggregation of houses should have within a reasonable distance an available supply of wholesome water. Public water-supplies, such as springs in roadside ditches, could be, and should be, protected from contamination and utilised.

The last paper was by Miss COCHRANE on Village Water-supplies. The village water-supplies could be placed in the hands of the county councils and the working expenses spread over the whole county or the owners might be made responsible. Miss Cochrane's opinion as regards the schools was that the Education Department should refuse to pay any grants to those schools which were unprovided with wholesome water.

Considerable differences of opinion were manifested as to the form and wording of several motions submitted to the Conference and finally three motions were passed, the first of which recorded that the opinion of the Conference was that the purity of the water-supply could only be effectively secured by placing such supplies in the hands of representative bodies responsible to the consumers. The second motion was to the effect that county councils should have large powers of control over the question of water-supply.

in their respective county areas. The third resolution urged county councils to investigate the existing condition of the water-supply within their districts.

On Oct. 17th, under the chairmanship of Mr. W. WHITAKER (Croydon), the meeting discussed the subjects of Water Filtration, Purification, and Sterilisation; Distribution Appliances, such as Filters, Taps, Cisterns, &c.; and Prevention of River Pollution.

A paper on Water Supply and River Pollution was contributed by Professor ROBINSON. He said that something had been done towards preventing the pollution of rivers where special Parliamentary powers had been given to public authorities. A certain amount of elasticity should be observed in regard to the rules concerning the condition of effluents and the application of a rigid standard of purity under totally different circumstances should be avoided. The evidence brought before public authorities and commissioners during the last few years pointed conclusively to the certainty that in the near future the waters which had been considered as unfit to be admitted into storage reservoirs would be so admitted instead of being allowed to run to waste. He regarded the utilisation of bacteria in anaerobic or aerobic chambers as the solution of many existing troubles. The preliminary breaking up of organic matter by anaerobes enabled the resultant liquid to be utilised on the land for agricultural purposes with greater advantage than where the sewage was applied in its crude state, and where sufficient land was not available the further treatment of the liquid in suitable beds would enable any necessary standard of the effluent to be reached.

Mr. A. G. LEIGH followed with a paper on the Control of Weirs and Dams on Streams in Relation to River Pollution. He thought that a staff of river scavengers under the direction of the rivers authority was required. These men, divided into parties with districts assigned to each, ought to commence at the source of a stream and work downwards, removing all unnatural obstructions and abandoned weirs and dams, levelling the bed as far as possible, and flushing and cleansing out the sluices behind the dams, and in this manner traversing its whole course. The sanitary conditions of streams would be improved and what had taken many years to form would be removed in as many weeks. Organic matter would be carried away before decomposition had set in and the stream would have an unimpeded flow and would carry its burdens with it. Streams passing through thickly populated towns should have their beds paved to prevent the collection of dangerous matter.

Two papers were communicated by Mr. H. W. RUSSELL (Berkshire County Council). The first was entitled Prevention of Pollution within the Thames Watershed. His experience of the working of the Thames Conservancy Act of 1894 had led him to the general conclusion that when intrusting an authority with powers to prevent river pollution such authority should undoubtedly have control over the whole watershed, not only over the main river, but also over all its tributaries. Local sanitary authorities might be so constituted that though imbued with the best intentions they might find it almost impossible to bring pressure to bear upon local manufacturers, possibly large ratepayers and possessing great influence with their local representatives. It was also advisable that there should be no distinction between the powers relating to the main stream and its tributaries. What constituted an offence in the one case should apply equally to the other. Small communities when called upon to divert pollution from streams often experienced much difficulty in deciding what measures to adopt to meet the requirements. They were frequently without any information as to the methods of treating sewage, and had not the means at their disposal of obtaining expert advice. The small communities frequently applied to the Thames Conservators for suggestions and advice on the subject, but it was not possible for them to undertake that responsibility. A branch of one of the Government departments should collect information for these small communities. He acknowledged the work done by the London County Council by means of their sludge-boats in entirely altering the state of the river in the lower reaches below the metropolitan drainage outfall. In consequence of this improvement an attempt was now being made which would have been hopeless a few years ago, but now promised a reasonable prospect of success, to re-introduce salmon into the river Thames, and no more practical proof could be given of the beneficent result attending the labours of the last few years.

The second paper by Mr. RUSSELL was on Thames Water-supply and Storage. The conditions of the flow of the water had greatly altered in the course of the latter half of the last century. The same causes which produced floods also produced droughts. All over the Thames watershed drain-pipes had been laid down in millions during the time mentioned and the result was that the rain-water was rushed into the river with great rapidity. The consequence was that the water no longer lay upon the ground for a sufficient time to enable any considerable portion of it to reach the springs, and more or less disastrous floods were caused, because the channel of the river was quite inadequate for the sudden strain. In order to get the water away as quickly as possible pressure of the severest nature was put on the Thames Conservancy. Larger weirs were constantly being made and an enormous mass of water flowed down to the sea every year, the want of which they were quite aware would be felt a few months later. At the present time, after comparatively moderate rainfalls, the rise of the river was much more sudden and acute than formerly. A large amount of water could be taken from the river with advantage instead of being allowed to run to waste. The flow of the Thames was such that no one could doubt the capability of the river to spare the enormous volume of water necessary for the metropolitan water-supply. Judged by the statistics of the average flow at Teddington Weir there was an ample excess, sufficient to provide storage for 80 days' supply for the metropolis without interfering with the amount of water required for the purposes of navigation and for the efficient scouring of the channel of the river. Referring to the quantity of water estimated to be required in 1941 he was of opinion that there was an ample excess at times which could be extracted with advantage to the river. In considering the question from the view of London water-supply it must not be forgotten that the reservoirs in the Lee valley constructed or in course of construction had a capacity of nearly 8,000,000,000 gallons. The present average daily withdrawal of water from the Thames by the water companies amounted to about 10 per cent. of the average flow of the river.

Mr. W. G. BAGNALL (Staffordshire County Council) complained of the want of assistance from the Local Government Board. The question of pollution was the only one which the Staffordshire County Council had serious difficulty about.

Dr. G. REID (Medical Officer of Health of Staffordshire) said all that was considered necessary for the purification of an effluent was that it should be sufficiently pure to sustain fish life, but that did not carry with it the removal of bacteria including disease germs. If local authorities had to remove bacteria from their effluents it was a very serious matter.

Mr. TOMLINSON (Northampton) pointed out that the land system of purification was working satisfactorily and that the Northamptonshire County Council was most anxious that the methods of purification should not be made more difficult and expensive.

Dr. S. RIDEAL said that sewage-disposal works should not be looked to for producing drinking water but should be required to give an effluent satisfactory for the river as a river—that is to say, to bring the stream into a condition suitable for fish life. To remove pathogenic organisms was not the function of sewage-disposal works. Water should be purified just before its use by the consumer by municipalities or by the water companies.

Mr. A. BOWES (Lancashire) said that the standards of purity required were too high for the practical cleansing of sewage. It was found that towns of perhaps 15,000 inhabitants could turn out an effluent which satisfied the standard, but where was the town of 150,000 inhabitants which had ever done that? After all these years of legislation they had streams in Lancashire that were nothing but inky black sewers.

Mr. W. D. GIBBINS (Northampton) referred to the sewage farm work of his town, and Lieutenant-Colonel JONES, V.C. (Aldershot), said that what had to be done was to clear out from the rivers any stagnant filth and not to allow it to remain in the river-bed, because the most perfect effluent could be turned out above such a gathering of filth, with the result that the work of purification would have to be done over again. In dry years the mud should be cleared out from the river-bed.

Dr. J. RYLEY (Yarmouth) was of opinion that for drinking purposes it should not be permitted that sewage containing pathogenic germs should flow into a stream leading to a water-supply. To make water companies remove the pathogenic germs in water was not commencing at the right end.

Dr. H. R. KENWOOD (medical officer of health of Stoke Newington and Finchley) submitted a paper entitled A Note with Reference to Water Standards, in which he said that the most an initial analysis of a water could tell was whether the figures of the analysis indicated little or much of organic impurity as judged from certain arbitrary standards. Whether the slight contamination which was practically always discovered was harmful or whether the particular water had recently received slight, but significant and possibly dangerous, pollution, could only be told with certainty by several careful analyses of the same water at short intervals of time and by the careful comparison of the results obtained, or by a comparison between the sample of water and others in the immediate neighbourhood collected from similar sources from the same geological area which were known to be above suspicion. It was a frequent practice, therefore, among those who had to advise as to the wholesomeness of the waters collected for drinking purposes in different districts, to establish local water standards, and a considerable multiplication of these was sometimes necessary even for a small district when the geological formations were much broken up. In his own experience, he had once found it necessary to establish as many as four chlorine standards in one small district. The object of his communication was to draw attention to an interesting and instructive incident which had recently come under his notice and which had destroyed his faith in the value of a chlorine standard in actual practice. The chlorine figure in this instance proved absolutely useless for the purpose of detecting animal pollution. He considered that the chlorine standard figure was useless in the smaller degrees of dangerous pollution and that before giving an opinion as to the safety of drinking a particular water it was of the greatest importance that a careful and open investigation should be made for all possible contaminating influences having regard to the source of the water, and that the circumstances which called for the analysis of a particular sample should always be considered in deciding upon the degree of purity that would justify the acquittal of the water as a possible agency in promoting disease.

Dr. A. BOSTOCK HILL (medical officer of health of Warwickshire) agreed that a full analysis ought to be made in the case of water-supplies. He protested against what was being done by so many authorities at the present time in endeavouring to get an analysis of their water-supply done as cheaply as possible.

Dr. KENWOOD said that a fair price should be paid for a complete analysis of water as it was a long and difficult matter.

The next paper was by Dr. S. RIDEAL on the Purification of Water. He said that the general use of open sand filters for the major portion of the last century had brought about a greater purification in water-supplies than was originally intended, because the primary idea of the open sand filter was simply to remove suspended matter, and it was only within the last 15 years that it had been known that such sand filters in addition improved the bacterial quality. The most important point in judging of the purity of a water-supply at the present time was certainly the typhoid fever death-rate and next to it the general bacterial purity of the water. Turbidity, hardness, and the effect in causing incrustation on boilers were now minor considerations and in a sanitary sense of little value. Sedimentation in storage reservoirs and the different methods of softening, although primarily designed for the removal of suspended solids and mineral matter in solution, also effected a considerable bacterial improvement. Although sedimentation and filtration only indirectly attained bacterial reduction a combination of the two processes could be so arranged as to bring the number of bacteria well below Koch's standard of 100 per cubic centimetre. By using lime as a precipitant in the storage water and a portion of the resulting precipitate as the coagulant to form the artificial *schmutzdecke* in a mechanical filter, a combination of the same effective character was possible. The use of lime as a coagulant in the storage reservoir ensured the absence of plumbo-solvent properties of the water and as the bacterial reduction required was less filtration if resorted to could be augmented and raised. A discussion could be usefully directed towards the question whether purification of public supplies should aim at the whole supply being purified up to the maximum standard of a good drinking water or whether people should be content with a somewhat less purified water for the general supply and sterilise separately in each house such portion as would be

required for food purposes. It is probable that a gallon per head per day of sterilised water would be sufficient for drinking and culinary use, so that only from 2 to 5 per cent. of the total supply would need to be hygienically perfect. The methods for ensuring the absence of pathogenic organisms in the small quantity of water required for drinking purposes could be divided into heat sterilisation, candle filtration, and chemical treatment. He believed that the problem of economical and efficient heat sterilisation was worth the further consideration of water engineers. The Pasteur-Chamberland candle type filter seemed to be the only one destined to survive, and chemical sterilisation could only be regarded as an emergency method. Dr. L. C. Parkes, the author, had quite recently advocated the use of bisulphate of soda as an anti-typhoid, especially for waters containing a large amount of organic matter, and he was glad to hear that that salt was being tried for that purpose on a considerable scale in South Africa. Most investigators, however, favoured the employment of oxidising agents in some form for sterilising waters. Ozone was so easily obtained that in several directions it had been tried even for purifying public supplies on a large scale, and it might in the near future be used extensively as a "finisher" in the purification of water.

Mr. T. CAINK (City Engineer, Worcester) gave the details concerning the drop in the typhoid fever rate at Worcester directly the water-supply had been improved in the year 1894.

Mr. WATSON (Bradford) said that the Bradford Corporation had adopted the method of lime precipitation many years ago.

Mr. W. J. BURGESS (Liverpool) said that they had a bacteriological examination of the water every day in Liverpool.

Dr. BOSTOCK HILL protested against judging of the purity of a water-supply entirely by the typhoid fever death-rate. If they were to do so in many instances they would be doing injustice to a water-supply. In two epidemics of typhoid fever he had found that the water-supply was not in any way at fault.

Dr. S. RIDEAL said that the municipalities should purify the water just before it reached the consumer.

Mr. F. VERNEY (London County Council) read a paper on the Value of Soft Water, and in the discussion which followed Mr. MATTHEWS (Southampton) and Mr. CLAYTON BEADLE joined.

The proceedings terminated with a vote of thanks to the Chairman, proposed by Sir F. S. POWELL, M.P.

## LONDON SCHOOL OF TROPICAL MEDICINE.

AN influential meeting was called together by the Seamen's Hospital Society on the occasion of the opening of the third winter session of the London School of Tropical Medicine to hear Lord Brassey deliver the opening address at the Royal United Service Institution, London, on Oct. 16th.

Lord BRASSEY explained that the meeting was for the purpose of obtaining further funds to enable the Seamen's Hospital Society to carry on its work in the treatment of tropical disease. The Colonial Office and Foreign Office in 1899 had contributed £3500 to the school and the India Office had subscribed £1000. The judgment, therefore, of those Government departments was in the highest degree favourable. The school was originally intended for the instruction of surgeons in the colonial and Indian services, but private students, missionaries, medical men, and others had been admitted. Experience had shown that the demand for instruction in tropical medicine was much greater than had been originally anticipated. During the last session it had been found necessary to refuse several students, and some four or five had been compelled to postpone their attendance until the next session. To carry on the work efficiently further funds were required to enlarge the school and to place it on a sound financial basis. The importance of the health of Europeans in the tropics could not be over-estimated, especially to a country like ours that depended for colonial prosperity upon the efficiency of our fellow-countrymen in tropical countries. A healthy community gave continuity of

administration to the Government; diminished sick leave through improved conditions of health, and conducted enormously to efficiency of administration. In commercial operations it was all important that those who conducted them should not be too often away on account of sickness. Sir Francis Lovell was about to proceed to the tropics on behalf of the Seamen's Hospital Society to make known the advantages of the London School of Tropical Medicine, and to endeavour to raise funds on its behalf. The school needed a sum of £100,000, but large as that sum was it was yet a small one for the great British Empire with so great a stake in the tropics.

Dr. PATRICK MANSON said the object of the school was to educate medical men who proposed to practise in the tropics. Another function was to attempt to advance the science of medicine in regard to tropical diseases. Mainly through the assistance of Mr. Chamberlain and of the managers of the Dreadnought Hospital the initial financial difficulties and professional opposition had been overcome. The number of students was so numerous that they could not admit them because the accommodation was too scanty. A growing institution should not be choked by a superfluity of work thrown upon it. There was a danger that students coming to them and finding no room might go elsewhere or give up the idea of special education in tropical diseases. The students were no callow youths—they were men of experience, many of them with grey hairs. The space at their disposal did not suffice to accommodate the students. They wanted enlarged laboratories, a lecture-room, a museum, and a library. Funds were appealed for on the strength of the work that was done by students of the school. One of them, Dr. George Low, discovered in the West Indies that over 11 per cent. of the inhabitants of Barbadoes were the subjects of the peculiar blood parasite causing elephantiasis, and had shown that by simple and inexpensive sanitary measures that disease and its associated condition were capable of absolute eradication in the course of a generation. Dr. H. E. Durham who was going out on behalf of the school to study disease in the South Pacific was the same gentleman who went out to Brazil with Dr. W. Myers to study yellow fever. Both contracted yellow fever and Dr. Myers died. When men like these were ready to lose their lives in the cause of science and humanity there should be no difficulty in finding funds for these researches. The English Government were very niggardly in these matters when compared with the German Government. Professor Koch had written giving particulars of subsidies granted to the following German medical expeditions by the German Government: (1) Professor Frosch in Brioni (Istria), (2) Staff-Doctor Bludau in Lussinpiccolo (Istria), (3) Staff-Doctor Vagedes in German South-West Africa, (4) Staff-Doctor Dempwolff in New Guinea, (5) Staff-Doctor Ollwig in German East Africa, (6) Dr. Krulle in the Marshall Islands, and further expeditions to Togo and Kameruns were being planned. Members of European expeditions received a daily allowance of £1 besides travelling expenses and allowances, and those on foreign expeditions £2 daily with allowances and special grants for personal equipment.

Sir FRANCIS LOVELL, C.M.G., late Surgeon-General of Trinidad, said that he had undertaken an expedition to the tropics on behalf of the Seamen's Hospital Society in order to provide funds to enable that society to put the London School of Tropical Medicine in a more satisfactory financial position. It was absolutely necessary that funds should be forthcoming, and it was felt by the Seamen's Hospital Society that an appeal should be made to those resident abroad. He had offered to the society to go abroad to induce the English residents in the East and in other tropical parts to contribute towards the objects which the school had in view. It had been decided that he was to go to India, to Ceylon, to the Straits Settlements, to China, to Japan, to New Zealand, and to Australia. He would return home probably by way of the United States and Canada. His intention was to raise funds to enable the society to put the London School of Tropical Medicine on such a footing as would make it worthy of its name as a teaching body in the great city of London.

**SEWERAGE AGREEMENTS.**—At the Plymouth County Court on Oct. 18th the St. Germans Rural District Council recovered £5 from a builder for connecting two houses with the public sewer. The case involved the validity of agreements under which the council exact from builders a contribution towards the cost of sewer extension.

## THE ANNUAL REPORT OF THE CHIEF INSPECTOR OF FACTORIES AND WORKSHOPS FOR THE YEAR 1900.

### III.

#### CONCLUDING NOTICE.<sup>1</sup>

IN the second notice of this report a considerable space was occupied in giving an account of lead-poisoning as it occurs in the various industries in which the metal is used, and the means which the inspectors have adopted to lessen the evil. The other poisonous metals have caused fewer cases of poisoning, and, important as they are, it is fortunately not necessary to dwell upon them in any great detail.

The number of cases of mercurial poisoning contracted in factories and workshops during the year was nine. With a single exception all the sufferers were men. The one woman affected was a "manufacturer of jellies"; the exact occupation in which she was engaged was that of "quicksilvering trays," a process carried on once or twice during the year, and it need only be added that the case was a slight one. Of the men three were manufacturing chemists, one was employed in alkali works in a process for the recovery of mercury, one was a thermometer-maker, one was a maker of electrical metres, and one was a glass-silverer. It was found by the inspectors that in factories in which calomel, corrosive sublimate, and red oxide of mercury and vermilion are made a proportion of no less than 15 per cent. suffered from salivation and over a third from tremors. The number of men examined was, however, small—27 in all. The chief danger of poisoning occurs in the volatilisation of the metal which occurs in the process of sublimation. Special rules have been drawn up for the use of the workers in trades in which mercurial preparations are made, and these rules have, in the case of two factories, been voluntarily adopted. The rules include the appointment of an examining surgeon, the provision by the manufacturers of overall suits, respirators, washing facilities, including baths with hot and cold water constantly laid on, and the use of a cloak-room. The workers are forbidden to take food or tobacco to the factory. It has been found that the makers of electric metres suffer to a considerable extent from mercurialism, and in one case, in which an increase of business necessitated the building of a new factory, the firm were glad to avail themselves of the valuable information which was afforded to them by the medical inspector both in regard to the improvement of the structure of the factory and the conditions under which the business would, from a hygienic point of view, be best carried on. It is in this quiet way that much of the most useful work done by the medical officers of the Home Office is carried out, without litigation and without publicity. And thus it often happens that the best work is often that least appreciated.

During the year an investigation was made into the condition of those who worked at the process in use by hatters for the preparation of the fur—a process in which nitrate of mercury is used. A circular letter on this matter was sent in January of the present year to the manufacturers engaged in the business by the chief inspector (Appendix 15). In this letter Dr. B. A. Whitelegge pointed out that the precautions of primary importance which should be adopted for the protection of the workers are: (1) the removal of the fumes and dust; (2) periodical medical inspection by an officer having power to suspend the workers from their occupation; and (3) facilities for washing.

Seven cases of arsenical poisoning, all of which occurred in women, were reported from a factory in which "emerald green" is manufactured, and at which 25 women were working. This salt is used chiefly for the destruction of the insect pests which destroy fruit trees and potatoes; the business, therefore, is a fluctuating one. The special incidence of the poisoning in the case referred to was, in the opinion of the medical inspector, due to the defective working of the fan which should have removed the dust produced in the process of packing. 13 cases, of which three were fatal, were reported of poisoning from arseniuretted hydrogen. One of these cases is recorded in considerable

<sup>1</sup> The first and second notices appeared in THE LANCET of Sept. 28th (p. 886) and Oct. 12th (p. 998), 1901, respectively.

detail (pp. 459-462). A cautious Scottish jury found that the cause of death was "from poisoning contracted (by the deceased) in the course of his employment." The opinions of scientific experts differed, and apparently still differ, as to the nature of the fatal gas and the means by which it was generated in this case.

The total number of cases of anthrax reported during the year was 37, of which seven were fatal. Of these cases 12 (of which three were fatal) occurred in people engaged in the handling of horsehair, and of the sufferers five were men, two were women, and five were "young persons" (three males and two females). Nine cases (of which two were fatal) occurred amongst wool-sorters and nine (one of which was fatal) amongst tanners and fellmongers, part of whose business it is to handle and sort hides and skins. The remaining seven cases occurred amongst those engaged in other industries. No case occurred amongst wool-combers. For the regulation of this industry special rules (given in the Annual Report for 1899, pp. 57 and 58) came into force in April, 1900. The rules appear to be working well—a fact which the medical inspector ascribes in great measure to the fact that they were the outcome of a conference held between representatives of the Bradford Chamber of Commerce, the Factory Department of the Home Office, and the Bradford and District Trades and Labour Council. Mr. Cecil Duncan, analyst to the County Council of Worcester, in conjunction with, and by means of apparatus provided by, a firm of hair and carpet manufacturers at Worcester, has carried out a number of experiments to test the efficacy of a well-known steam disinfectant in regard to its use in sterilising infected China mane hair. The experiments appear to have been conducted with the greatest possible care. The conclusions to which Mr. Duncan has come throw great doubt on the accuracy of deductions drawn from the experiments of Dr. Kubler,<sup>2</sup> whose report to the German Health Office has apparently been estimated at a higher value than its intrinsic worth warranted. Dr. Kubler's experiments were made with laboratory specimens which he introduced into bales of hair. Mr. A. Webb has made experiments in which the material used contained the spores of anthrax in their natural environment on the hair, dry and surrounded with dirt and grease. What he actually found was that so long as the steam was kept away from the spores a high temperature alone was not effective in killing them. Unfortunately, steam is very prejudicial to hair from a commercial point of view. It seems possible that no effective method has yet been discovered of thoroughly freeing hair from the spores of anthrax without injury to the material which contains them. The best method of efficient disinfection of merchandisable commodities from such a dangerous poison as that of anthrax is not an unfit subject for inquiry by the medical officers of the Local Government Board.

Attention was lately prominently called by Dr. Birmingham to the great mortality which occurred amongst those engaged in the "ganister" industry. Ganister is a close-grained hard silicious stone and contains from 75 to 95 per cent. of silica. It has a greater fire-resisting capacity than any other known substance and is therefore used for lining the bottom of crucibles and of Bessemer converters. The stone is obtained by blasting with dynamite; it is afterwards crushed by an instrument specially devised for the purpose and is finally ground in the presence of water and moulded into bricks. The miners suffer greatly from the inhalation of the dust and frequently die from a disease which has for years been known as fibroid phthisis and to which in the case of stone miners the term "silicosis" has more recently been applied. Dr. Birmingham in the paper which he read at the Sanitary Institute in the year 1899 stated that the annual average death-rate which occurred amongst ganister workers amounted to 22.29 per 1000 workers.<sup>3</sup> Commander Smith on behalf of the Home Office has made an inquiry into the working of the ganister industry and Dr. F. W. Andrewes has investigated the pathological conditions which exist in the lungs of a typical case of silicosis, and a chemical analysis conducted by Mr. H. A. Schöberg shows that a large quantity of silica was contained in the substance of the lung. The report contains some good coloured illustrations of the pathological appearances. Mr. J. Hilditch, inspector for North Wales, who gives an excellent account of the manufacture of silica and fireclay goods, and who writes with the knowledge which is to be obtained only by long experience, has drawn up some suggestions which are likely to be of use if they are efficiently carried out.

<sup>2</sup> Arbeiten aus dem Kaiserlichen Gesundheitsamte, vol. xv., Heft 1.

<sup>3</sup> Journal of the Sanitary Institute, vol. xxi., part 1.

They are all designed to prevent the inhalation of the noxious dust, and it is not necessary to do more than refer to them in terms of praise.

The sectional report of Mr. W. Williams, the inspector under the Cloth Factories Acts, deals not only with the administration of the control of the working of cotton mills, but includes also the administration of special rules for flax and linen factories which are engaged in damp ("humified") processes of work. During the year 1900 the number of rooms from which humidity returns were received amounted to 1476; of these, 1217 were in England, 16 in Scotland, and 243 in Ireland. Of the English counties Lancashire is the great centre of the cotton industry, and 902 returns were received from that county alone. Of this number one only was from a worsted mill and five were from flax mills. In the West Riding of Yorkshire of 166 returns 71 were from cotton mills and 91 were from wool and worsted mills. The flax-spinning industry is carried on chiefly in Ireland. Of 170 rooms used for this trade 10 only exist in England, nine in Scotland, the remaining 151 are all in Ireland, and of these no less than 101 are in the county of Antrim. The chief work of Mr. Williams has been that of enforcing the regulations issued by the Secretary of State under the Cotton Cloth Factories Act, 1897. Of this work the supervision of the ventilation of weaving-sheds has been the most important, and this for more than one reason. In the first place, the intrinsic importance of the subject demanded that it should have prime consideration, but this reason alone would not have sufficed had the regulations been ambiguous in their phraseology. But the regulations "for the first time in the history of factory legislation arrived at a scientific standard of ventilation based on the actual purity of the atmosphere breathed by the workers." The impurity of the air was to be judged by the proportion of carbonic acid present in the air of the shed. The regulation, it may be remembered, was made after an inquiry by a committee which included Sir Henry Roscoe, Dr. Ransome, and the late Sir William Roberts. It was as follows: "The arrangement for ventilation shall be such that during working hours in no part of the cotton cloth factory shall the proportion of carbonic acid (carbon dioxide) in the air be greater than nine volumes of carbonic acid to every 10,000 volumes of air." The committee pointed out that the standard amount of carbonic acid permitted by this regulation was a high one, but that they anticipated that the adoption of the regulation would, notwithstanding that objection, be of service. So it has proved. The greatest good which is likely to follow is the precedent which has been formed for the adoption of a definite and easily determinable standard of permissible impurity in the air breathed by workmen. To show the amount of improvement which has already been effected the inspector gives a table based upon tests made in 35 weaving-sheds during the year 1900. The table shows in each of the 35 cases the number of volumes of carbonic acid per 10,000 volumes of air: (1) before the improvement in ventilating arrangements was effected; and (2) after improvement in ventilating arrangements was effected. The actual improvement effected is, however, most easily realised by comparing two other columns of figures which have been added to the table (see C and D in the tabular statement given below). The figures in these columns are obtained by deducting from the amount of carbonic acid experimentally found to be present in the workrooms the amount normally present in the outside air of manufacturing towns—an amount which is approximately estimated as four volumes per 10,000. The figures in these last two columns therefore give a tolerably accurate indication of the respiratory impurity present in the air before and after improvement was made in the ventilating arrangements. The average of the 35 cases is as follows and the improvement will be most easily seen in a tabular form:—

Number of volumes of carbonic acid (CO <sub>2</sub> ) per 10,000 volumes of air.		Approximate number of volumes of CO <sub>2</sub> per 10,000 due to respiration.	
Before improvement in ventilating arrangements.	After improvement in ventilating arrangements.	C. Before improvement in ventilating arrangements.	D. After improvement in ventilating arrangements.
13.0	7.9	9.0	3.9

These results, which affect more than 6000 workers, show

that an enormous amount of good has been effected, and in some cases it may be mentioned that the amount of respiratory impurity has been diminished by more than two-thirds. The inspector mentions one case in which a firm of cotton manufacturers have introduced a system of ventilation by which the amount of carbonic acid present in their sheds has been reduced to the extent of from 5.6 to 6.7 volumes per 10,000 volumes of air. Such an instance is unfortunately not a common one, although opposition to sanitary improvements is becoming less marked on the part of manufacturers as they are learning that improved health conditions amongst the workers leads to better work. In the past the atmospheric pollution present in the workshops has been appalling and has been quite sufficient to account for the low standard of physique which has been commonly remarked as usual amongst cotton-spinners. Unfortunately, the regulation which we have quoted in regard to the permissible amount of carbonic acid impurity refers only to the air of the artificially moistened sheds in which the weaving of cotton cloth is carried out. No such regulation is in force in the case of rooms used for cotton-spinning. The atmospheric condition of many of these rooms must be a fertile source of disease. A table given showing the amount of carbonic acid in some of these mills is most striking. We must be content to quote a few cases only.

No. of case.	Process.	Space per head in cubic feet.	Temperature in degrees Fahrenheit.	Number of volumes of CO <sub>2</sub> per 10,000 volumes of air.	Remarks.
2	Spinning.	9,000	85	24.2	No mechanical means of ventilation.
3	"	8,500	86	33.5	
7	"	10,000	92	28.1	
8	"	10,000	85	32.2	
9	Carding.	4,000	80	10.2	

The cotton mills in which these investigations were carried out are situated at Bolton and "from a structural point of view" are said to be not bad specimens of their class. Mr. Williams remarks that he thinks that most intelligent observers will be convinced that there is a great waste of human life and energy owing to the defective supply of fresh air to indoor workers. At the present time very many of the cotton-spinners' sheds have no mechanical means of ventilation. The temperature of the air in some of the sheds is much higher than it should be. In the table above quoted it will be noticed that in one case (No. 7) the temperature was found to be 92° F. In another case, which is omitted from the list which we have taken, the temperature was also 92° F. and in a third case it was 91° F. The regulations of the Secretary of State stipulate that the steam used for moistening the atmosphere of workmen's sheds must be obtained from pure water—a regulation rendered necessary by the knowledge that it had previously been occasionally the practice to obtain the steam from water which was polluted by the remains of decaying animals or by sewage. Flax mills and linen factories have been placed under special rules in regard to their management since the year 1896. These regulations have regard to the control of weaving-sheds, wet spinning-rooms, roughing-rooms, sorting-rooms and hand hackling-rooms, carding-rooms, and dressing-rooms. The rules, which are given *in extenso* in the report (pp. 422-423), have been of great use, but the inspector finds that conditions still exist which are dangerous to health. In the wet spinning-rooms the workers, especially the children, have their clothes wet through by the spray. The atmosphere, which has frequently a temperature of over 70° F., often contains more moisture than the amount legally allowed in the case of cotton mills. The compulsory special rules are not at present applied to wet spinning-rooms and in some cases the steam is generated from very impure water. Mr. Williams in concluding his report advises that a special inquiry should be made into the sanitary condition of flax and linen factories, with especial reference to the following subjects: (1) the protection of workers from dust; (2) the ventilation of all departments, particularly the reeling-rooms, wet spinning-rooms, and weaving-sheds; (3) the prevention of excessive humidity and temperature in wet spinning and weaving; (4) the protection of workers in the wet spinning-rooms from getting wetted by

the spray from the frames; (5) the prohibition of the use of impure steam or impure water for moistening the air breathed by the workers; and (6) the reduction of the temperature of dressing-rooms. The chief inspector, we are glad to see, announces that arrangements are being made for such an inquiry.

The report of the engineering adviser, Mr. E. H. Osborn, is concise and is clearly written. Mr. Osborn gives considerable prominence to the regulations in force in some of the United States of America. The rules are, as he remarks, "notable for perspicuity of specific detail and comprehensiveness." It is, however, much easier to begin in a new country with new rules. There are fewer organised trade interests to fight. The difficulties which have arisen in England have often been caused by a seeming injustice in interfering with long-established customs of trade. Yet it will be admitted by all right-minded people that "it hardly seems consonant with sound policy that an employer should claim a sort of vested interest in subjecting his workmen to unhealthy conditions because his machines are badly arranged." Mr. Osborn suggests that injurious dusts should be scheduled and that the list should be added to as research makes clear the mischievous nature of those not already in the list. This proposition seems from every point of view to be commendable.

Mr. A. G. H. Thatcher, His Majesty's Inspector's Assistant, gives a most valuable report on accidents occurring on buildings in course of construction or repair (Appendix 10, p. 97). He explains the causes of the occurrence of those accidents which may be considered "controllable"—that is to say, avoidable by builders and workmen. He deals briefly with the mishaps for which the architect is responsible—accidents which, he points out, are "generally owing to erratic or miscalculated formulæ." The report is quite short and consists of three pages only, with an appendix of one page of illustrative drawings. It contains an enormous amount of condensed information in regard to scaffolding and the lifting and carrying of ironwork, timber, bricks, slates, and stone. The illustrations are excellent. The one on scaffolding shows at a glance the true theory of scaffold-building and gives the technical names of the various parts and processes adopted. A copy of this report should be in the hands of all builders.

It may be of use to mention the appeal cases which were of interest to the Home Office and which were decided during 1900. They were as follows: Squire v. Sweeny (High Court of Justice in Ireland, Queen's Bench Division), Jan. 16th, 1900; Squire v. Sweeny (High Court of Justice in Ireland, Queen's Bench Division, Crown side), June 27th, 1900. In the first of these cases it was decided that the Act 41 Vict. c. 16, s. 68 (4) does not confine the place at which inquiries and examinations under it are made to the place where work is given out to out-workers or to the factory or workshop itself. Tracey v. Pretty and Sons (1901, 1 Q. B. 444), Hoare v. Ritchie and Son (1901, 1 Q. B. 434). In this case it was held that it was not necessary in order that a conviction should be obtained under Section 36 of the Factory and Workshop Act, 1878, to prove that any worker had sustained actual injury from inhaling dust, but that it was sufficient if it was proved that dust was generated and inhaled by the workers to an extent that must in the long run be injurious. Bennet v. Harding, High Court of Justice (Queen's Bench Division), June 14th, 1900. In this case it was held that stables and stable-yards were a workplace within the meaning of Section 38 of the Public Health London Act, 1891, and that as cab-drivers were in attendance there sanitary conveniences must be provided for them.

Commander H. P. Smith in his report on the manufacture of wall-papers (Appendix 9, p. 83) gives a most interesting account of the business. The report, he points out, is to be considered as supplementary to that of the Departmental Committee on Dangerous Trades.

During the year some correspondence took place between the Home Office and the Irish Agricultural Society on the subject of the management of creameries in Ireland (Appendix 11). This industry is a very important one, and it is to be hoped that it will not be unreasonably hampered by restrictions. The attitude of the Irish Agricultural Society cannot be clearly ascertained from the correspondence published, for a circular which forms part of their case does not appear in the report.

The number of accidents reported by certifying surgeons as due to locomotives registered from July 1st to Dec. 31st,

1900, amounted to 178 (Appendix 19). Many of the accidents were caused in the process of shunting. No fewer than 238 injuries were reported during the same period as having been caused by grindstones (Appendix 22).

The report of Miss A. M. Anderson, His Majesty's Principal Lady Inspector of Factories, which has already been incidentally referred to, compares in one important point very favourably with that of the chief inspector. It is provided with a well-arranged table of contents, so that it is possible without loss of time to refer to any point which may be of interest to the reader.

## THE FIFTH INTERNATIONAL CONGRESS OF PHYSIOLOGISTS.

HELD AT TURIN, SEPT. 17TH-21ST, 1901.

THE following are some further abstracts of communications made to the above Congress:—

### *Gustatory Sensations in the Larynx.*

Dr. F. KIESOW (Turin) read a paper on the above subject. He said that Michelson and Langendorff had found that the posterior surface of the epiglottis (in whose mucous membrane taste-buds were found) gave a positive reaction of taste to solutions of quinine and saccharin and to the electric current. Dr. Kiesow was able to confirm this and in addition found that all the four recognised modifications of gustatory sensation—acid, saline, sweet, and bitter—were also present. The intensity of the sensation was much less than in other taste regions and some of the "tastes" were confused. He himself could not distinguish between acid and saline with certainty. The inner surface of the larynx was also found to be sensitive in one experiment upon himself, but neither acids nor the electric current were tested. To carry out this latter experiment it was necessary to paint the epiglottis with solutions of cocaine and gymnemic acid. A sound was then passed (aided by the laryngoscope) to apply the solutions. In the investigation Dr. Kiesow was assisted by Dr. Hahn.

### *Stomach Movements in Different Animals.*

Professor GRÜTZNER (Tübingen) said that these were studied by feeding animals (mostly rabbits) on the same diets and killing them at different periods after administering the food. The chopped-up meal was coloured with a substance prepared from the fruit of the bilberry (*vaccinium myrtillus*), which was bluish-green in alkaline fluids, but turned red when acidified. The stomachs were quickly removed from the animals, after being ligatured at both ends and rapidly frozen through. Transverse and longitudinal sections of the organ were then made. After digestion had fairly set in the pyloric funnel was always found filled with acidified and well-digested food. At the cardiac end the food was acid only at the surface, never in the interior of the mass. Fluid food, however, when brought into the stomach after a long period of fasting rapidly came into contact with the mucous membrane, was acidified, and then passed on to the pylorus. Solid or semi-solid food, on the other hand, was conducted into the interior of any food already in the organ—and rabbits' stomachs were rarely empty—only slowly reaching the mucous membrane to be acidified and digested. What happened generally, appeared to be as just related in the foregoing sentence, the food after gaining the surface of the mucous membrane being driven along both curvatures from cardia to pylorus and only when digested allowed to enter the pyloric funnel. Localised contractions were observed which might have served this purpose or possibly might have been the cause of the so-called rolling movements which were supposed to account for the formation of "balls" in the stomach.

### *The Excretion of Bile on Various Diets and after the Subcutaneous Injection of Certain Food Materials in Solution.*

Dr. BARBERA (Bologna) contributed a paper on the above subject. The experiments were performed on dogs with complete permanent biliary fistulae. It was found in agreement with others that proteids caused a marked increase in the elimination of bile, extending over a considerable period; an equal quantity of fats produced a less increase but of longer duration. Carbohydrate food, however, caused exceedingly little augmentation and only for a very short

time. Mixed diets produced effects which varied but which harmonised with the proportion of one or other of the foregoing ingredients in the mixture. Water produced no influence. The period of latent effect was shortest (from 20 to 30 minutes) after meals of proteids, carbohydrates, and of mixed ingredients, and longest (from 50 to 60 minutes) after fats. The maximum rate of outflow was reached from two to three hours after carbohydrates, from three to four hours after proteids, and from five to seven hours after fats. Subcutaneous injections of 10 per cent. solutions of glucose increased the elimination slightly, but the effect soon passed off. Similar solutions of somatose had a greater and more lasting effect. Oil injected under the skin had no influence.

### *The Action of Succus Entericus on Pancreatic Juice.*

Dr. A. WALTHER (St. Petersburg) said that it was known that a ferment had been discovered in the succus entericus by Pawlow and one of his pupils, which had the effect of markedly augmenting the proteid-digesting power of pancreatic juice. A demonstration of the influence of this ferment (named enterokinase) upon the digestion of fibrin was made by Dr. Walther whose further investigations went to show that it only increased the power of fresh pancreatic juice which contained a considerable proportion of its ferment in the form of zymogen. The enterokinase rapidly converted the zymogen into trypsin. In this process oxidation played no part and hence the zymogen of the juice must be different from Heidenhain's zymogen obtained from the gland. A proteid body could be precipitated from fresh pancreatic juice in considerable quantity with dilute hydrochloric acid (0.5 per cent.), which was neither trypsin nor its zymogen. These remained in the filtrate, the whole of the zymogen of which could readily be converted into trypsin by submitting it to dialysis. This was shown by the fact that its activity was thereby greatly increased and could be no further augmented by the addition of kinase. The action of the kinase was probably therefore one of hydrolysis. Fresh pancreatic juice had also its digestive power increased by dialysis. During dialysis of the filtrate from the HCl-precipitate, a proteid body, possibly of a globulin nature, often separated out. This body very strongly digested proteids, but had little or no influence on starch. The fluid out of which it separated digested starch with great ease, however, and also to some extent proteid. This fact was of interest since it showed that in dialysis a means was at hand for separating the tryptic from the amylolytic ferment.

### *Does the Spleen Play a Role in Pancreatic Digestion?*

Professor DELEZENNE and Dr. A. FROUIN, in a paper under the above heading, stated that the old theory of Schiff, that a substance indispensable for the pancreatic digestion of proteids was formed in the spleen, though denied by many, and displaced by Heidenhain's discovery of a tryptic zymogen, had recently been revived by Herzen and Gachet and Pachon. The latter observer believed that the splenic substance or ferment played the rôle of converting the zymogen into zymase (trypsin), thus setting it free to work. Dastre, however, had shown that removal of the spleen in no way altered the health of the animal or prevented the full development of young animals. Professor Delezenne and Dr. Frouin thought this experiment hardly sufficient to settle the theory one way or the other. Accordingly they attempted the solution of the question as follows. The stomach was isolated in dogs by joining the lower end of the œsophagus with the upper end of the duodenum. It was possible to accomplish this without injury to the vagi nerves. Both ends of the stomach were then closed and a fistula made into it through the wall of the abdomen, by means of which gastric juice was drawn off once a day. In other cases the stomach was wholly excised. The animals recovered well from these operations and their feeding presented no special difficulty. After recovery the spleen was excised and again without permanent interference with health. In such animals digestion of proteids was wholly performed by the pancreas and yet removal of the spleen produced no trouble whatever. The dogs not only lived but enjoyed the best of health, and one of those with an isolated stomach was exhibited at the congress six months after the second operation. Further, the juice secreted by the stomach was perfectly normal. Professor Delezenne and Dr. Frouin therefore concluded that the spleen could play no indispensable rôle in pancreatic digestion. Its influence on this process was quite insignificant when contrasted with that of Pawlow's entero-kinase.

*The Origin of the Pepsin found in Urine.*

Professor DELEZENNE and Dr. A. FROUIN had also made use of the animals employed in the foregoing research to determine the source of the peptic ferment which was normally found in urine. The zymase was present most abundantly in the morning urine and that secreted between meals. During the height of digestion it was absent. These facts suggested the idea that the ferment of the urine was the same which had been employed in digestion and which was afterwards absorbed to be got rid of by the kidney. In support of this it was found that the urine of dogs from which the stomachs had been removed never yielded any pepsin; that of the animals in which the organ was merely isolated, on the contrary, always contained it. It was permissible, therefore, to conclude that the urinary pepsin had its origin in the stomach and was also absorbed from the same organ. It seemed of interest to determine whether absorption likewise occurred from the bowel. Normal gastric juice was therefore given to an animal without a stomach, but no ferment was ever found in the urine, consequently Professor Delezenne and Dr. Frouin supposed that this did not take place in health. It was more probable that the ferment was destroyed in the intestine.

*The Absorption of Sugars from the Intestine in Relation to the Osmotic Tension of their Solutions.*

Professor ALBERTONI (Bologna) said that he had found that the rate of absorption of sugars did not correspond with the osmotic tension of the substances in solutions. Of solutions of glucose, saccharose, and lactose of the same osmotic tension the amount absorbed of the two former was greater than that of the latter. The same difference was maintained even when the osmotic tension of the lactose solutions was altered—i.e., made higher or lower than that of the others. The absolute quantity of substance absorbed was, however, always greater with hypertonic than with isotonic or hypotonic solutions. When hypertonic solutions of the sugars had been administered by the stomach the osmotic tension of the liquid found in its cavity an hour later was always reduced, though greater than that of the blood. On the contrary, with isotonic and hypotonic solutions an increase of osmotic tension occurred. In this connexion it was of interest to remark that the osmotic tension of the liquid normally found in the intestine was practically constant and always higher than that of the blood. During absorption the osmotic tension of the blood underwent slight variations, being augmented somewhat when hypertonic solutions were brought into the intestine. Professor Albertoni concluded that while the laws of osmosis certainly played a part in the process of absorption, especially from the stomach, they did not suffice to explain the whole matter. Experiments which he hoped to publish shortly went to show that the colloidal properties of the blood played a more important rôle.

*The Absorption of Mono- and Di-saccharides from the Intestine.*

Dr. NANGANO KIOTO contributed a paper on the above subject which was communicated by Professor F. ROHMANN (Breslau). The experiments had been performed on dogs with Vella's intestinal fistula. Similar quantities of solutions of the same strength of hexoses (glucose, galactose, mannose, and fructose), and of pentoses (arabinose and xylose) were injected into the bowel and the quantity of each which had disappeared in one hour determined. It was found that unlike quantities of the different stereoisomeric sugars were absorbed, from which it must be concluded that the process was not wholly dependent upon osmotic pressure but that other properties of the substances (in the foregoing cases probably configuration of the molecule) came in. The absorption of di-saccharides was also investigated. These, as was known, were for the most part cleft into mono-saccharides before being taken up; but a greater or less quantity in Dr. Kioto's experiments must have been absorbed unchanged, the activity of the intestinal ferment having been insufficient to have effected their cleavage within the time. It was therefore concluded that the process was continued on their way through the mucous membrane, extracts of which yielded solutions capable of transforming the sugars in question.

# Looking Back.

FROM

THE LANCET, SUNDAY, OCTOBER 26, 1823.

*Ventilation.*

THE following, taken from the History of the Dublin Lying-in Hospital, shows in an extraordinary degree the advantages that result from free ventilation. We consider this a document of great value, and hope that it will convince all parents of the folly, not to say cruelty, of confining young infants in rooms with closed doors and windows.

*Dublin Lying-in Hospital.*—In this hospital 2,944 infants out of 7,650 died in the years 1782, 1783, 1784, and 1785, within the first fortnight after their birth, that is nearly *one child* out of every *six*. They almost all died in convulsions, of what the nurses called *nine-days fits*, because they came on within nine days after their birth. These children, many of them, foamed at their mouths, their thumbs were drawn into the palms of their hands, the jaws were locked, the face was swelled and looked *bluc*, as though they were *choaked*.

This last circumstance led the physicians to conclude that the rooms in the hospital were too *close* and *crowded*, and hence that the infants had not a sufficient quantity of *good air* to breathe. They contrived, therefore, *air-pipes*, six inches wide, which were placed in the ceiling of each room. Three holes, an inch wide, were bored through each window frame; and a number of holes were made in the doors at the bottom.

Thus the rooms were kept *sweet* and *fresh*; and the consequence has been, from the register in that hospital, that,

## Children.

In 1786, out of 1,372 there died	51
1787, — 1,375 ————	59
1788, — 1,496 ————	55
4,243	165

So that since the alteration of the rooms as to airiness, out of 4,243 there died 165 children; whereas before, the average amount of deaths from the same number was 1,632.\*

\* If out of 4,243 children there perish, when the hospital was *ventilated*, only 151 infants, how many may be expected to die out of 7,650, the number of children born in the DUBLIN Lying-in Hospital in the years 1782, 1783, 1784, and 1785? The answer is, by the rule of proportion, 279. But, how dreadful the account, there perished absolutely 4,243, deducting 279, solely from the want of a due supply of *air*! We have not only to deplore the number of innocent victims who were destroyed at this time and previous to it, but also to lament the wretched anguish of the disconsolate parents, and the impoverished state of health in many of the poor babes who survived this slaughter.

The great and good Dr. Hales, whose studies and experiments were constantly directed to the benefit of mankind, recommended a trial of *ventilators* in the SAVOY and NEWGATE prisons, in both of which the *jaill fever* was frequent, and commonly fatal: the good effects exceeded even his most sanguine expectations; for a very small proportion of the sick died, when the ventilators came into use, and the contagion seemed in a manner arrested. The benevolent Mr. HOWARD found the prisons on the continent perfectly free from this *pestilential fever*; owing, as he thinks to the apartments in which the prisoners, were confined being *spacious*, and consequently well aired.

## EPSOM COLLEGE.

WE have frequently called attention to the good work carried out by the Royal Medical Benevolent College in the hope of enlisting for that excellent institution generous support from members of the profession. We now have pleasure in referring to the uninterrupted progress which has attended the educational branch of the association known as Epsom College, which, it is hardly necessary to observe, is quite distinct from the eleemosynary side. Since the foundation of the College by Mr. Probert close upon 50 years ago important additions have from time to time been made to the buildings and land, so that, whereas in the early days only 150 boys could be admitted, there is now ample accommodation for 350 boys. Our readers will be glad to know that some important additions have been made during the last few years, comprising a

lower school for 100 junior boys, a laundry, the enlargement of the chapel, an addition of 15 acres of land, which will prevent undesirable buildings from being erected in close proximity to the College, and an enlarged laboratory and lecture theatre. It is hardly necessary to refer to the value of a separate school for junior boys, since none know better than medical men how desirable it is from many points of view that young boys should be trained away from their seniors. The foundation-stone of the lower school was laid in 1895 by H.R.H. the Prince of Wales, accompanied by their Royal Highnesses the Princess of Wales and the Princess Victoria of Wales. The school is complete in itself and has a separate matron and its own masters.

On Saturday last the Council and other friends of the College met at Epsom to hand over formally to the school the enlarged laboratory and lecture theatre which have been partly built from a legacy of £500 left by the late Mr. P. H. Maddock, a master of the College, who died in 1898. It would be difficult to find any better proof of the value of the work done at Epsom than the fact that a master who was familiar with every detail connected with the school should leave to it all his books and pictures and, in addition, bequeath so handsome a sum to the governing body to be used for the benefit of the College; and the Council could hardly have chosen a more useful way of perpetuating the memory of a master whose heart was always in his work. In arranging the laboratory provision has been made for giving the teacher complete supervision and for preventing students from having occasion to leave their work. Teak benches for 26 boys have been fitted, but there is room for additional accommodation. The arrangement is very compact. There are five double benches for four students, working two aside, and each student has two drawers, two cupboards with knee space between, and two gas-supplies, the taps of which are in front, though the gas points are at the back of the bench. On each side of the bench there is a sink and there is one water-tap with two side leads for every two students. At the end of each bench there is a fume cupboard with sliding, counterpoised doors accessible from both sides of the bench. The shelves for reagents are lined with glass plates. At one end of the room there is a similar bench for six students, with a fume cupboard at each end, and at the other end of the room there is a teak bench for general work, a slate bench with hood over for furnace work, and distillations, and a general sink with a draining-board. The waste from all sinks is conveyed by means of open channels under the floor to the gully outside. Over each bench there is a double gas bracket, which thus gives one burner to each student. Sulphuretted hydrogen is made in two generators and is laid on to each fume cupboard.

As to the educational successes of the College we have frequently referred to them. In three recent years 10 scholarships or exhibitions ranging in value from £30 to £80 and one sizarship of £30 were gained at the Universities of Oxford and Cambridge for classics, mathematics, science, and history. The results of examinations held by the University of London and by the Oxford and Cambridge Schools Examination Board have been exceedingly satisfactory. At the London Matriculation Examination 48 boys have passed during the past three years, including one in honours, and 18 boys have passed the whole of the Preliminary Scientific Examination and 11 others part of it. At the Joint Universities' Examinations 29 higher certificates and 108 lower certificates have been obtained during the same period. For those boys who contemplate medicine as a profession it would be difficult to find a school which offers so many advantages as are offered by Epsom College. There are no fewer than nine medical scholarships of from 120 guineas to £150 in value at the hospital schools in London, and of 15 other scholarships or exhibitions offered five are of £15 in value, two are of £21, two are of £27, one is of £30, another is of £40, two are of £50, and two are of £60. As the College is recognised as a school of science by the Committee of the English Conjoint Board boys are prepared for Parts I. and III. of the first examination. The school fees are very moderate when compared with those charged by schools of the same class. The ordinary fee is £70 a year, but all sons of medical men are allowed a rebate of £10 and a few sons of medical men in reduced circumstances are admitted at £31 10s. a year. The Council offer annually entrance scholarships of £30 a year, open to all comers, and are anxious that the College should not be considered as

exclusively for the sons of medical men, since they are convinced that "class" schools are undesirable. Fifty of the boys are Foundation scholars and they are boarded, clothed, and educated free of charge, the whole cost being borne by the charitable side of the institution.

## THE GENERAL MEDICAL COUNCIL: ELECTION OF DIRECT REPRESENTATIVES, 1901.

MR. GEORGE BROWN'S ADDRESS TO THE REGISTERED PRACTITIONERS OF ENGLAND AND WALES.

FELLOW PRACTITIONERS,—As the term for which you elected Dr. Glover and myself in 1896 to represent you in the General Medical Council will expire on Jan. 1st next, you will shortly be called upon to fill the seats which will thus become vacant. I beg to inform you that it is my intention to offer myself for re-election and I venture to hope that my efforts to serve your interests during the four and a half years I have had the honour to represent you will insure me a renewal of your confidence.

It will be in the recollection of many of you that at the last election I pledged myself, if successful, to do my utmost to carry out a definite line of action in regard to five questions of great importance as affecting the well-being of the profession. Respecting these, it may be convenient if I as briefly as possible report progress.

1. *Amendment of the Medical Acts with a view to the suppression of unqualified practice.*—As yet it has been impossible to persuade the Council to take action in favour thereof, but as some of the most powerful opponents of medical reform have during the last year or two ceased to be members of the Council and their seats are now occupied by others whose views are more in harmony with those held by the bulk of the profession, I am not without hope that medical reform will be regarded with more favour in the future, although some outside pressure may be necessary before the Council takes any practical steps to promote a Bill to amend the Medical Acts in the direction indicated.

2. *To prevent sick clubs and dispensaries whose agents canvass for patients from obtaining the services of registered practitioners.*—It is a great satisfaction to me to know that I have assisted in passing a resolution expressing the disapproval of the Council with those practitioners who associate themselves with clubs whose agents systematically canvass for patients. This resolution is a step in the right direction, but as the expression of a pious opinion it will, I fear, be of little use. The degrading practice can only be suppressed by dealing with it in the same manner as offences which are regarded as infamous in a professional respect. I shall always insist, as I have in the past, that the absence of a wage-limit is likely to lead to the abuse of clubs and dispensaries, as well as to friction and contentions among neighbouring practitioners.

3. *To oppose the Bill for the registration of midwives.*—Through the action initiated by me at the May session, 1897, notwithstanding that the Council had previously in very decided language, to use the late Sir Richard Quain's own words, declined to interfere with the proposed legislation respecting the practice of midwives, the Council appointed a special committee to consider the proposed measure. As a result the Lord President of the Privy Council was informed that the Council "would earnestly deprecate its passing into law." Happily, in consequence of the opposition thus raised, the mischievous Bill did not receive the sanction of Parliament, and I have no fear that it ever will become law if the profession as a whole continues to exercise the vigilance and activity in opposing the measure it has hitherto done. Much will depend upon the votes recorded in this election, and you may rely upon me that my opposition to legalising midwives as independent practitioners will be as keen as ever, and I should like both midwives and all unqualified practitioners made legally responsible for any damage they may cause to mother or child or any other person. I am, however, in favour of legislation to insure the better education and registration of obstetric and other nurses to act under the direct supervision of medical practitioners.

4. *The raising of the standard of medical education.*—In

accordance with my pledges I have worked in harmony with those members of the Council who are in favour of raising the standard of education, and it is satisfactory to report that during the last year or two regulations have been adopted lengthening the course of professional study and raising the standard of preliminary examinations. It is to be regretted that the Royal College of Physicians and the Royal College of Surgeons of England appear disposed to dispute the authority of the Council in regard to this matter. Although I am a Member of the College of Surgeons I feel that in all questions relating to medical education the fiat of the Medical Council should be absolute, and as long as I continue to be a member of that body my action will be guided by a sincere wish to support its authority. Unless the Council's authority be maintained medical education will soon become chaotic.

5. *Increased direct representation.*—On two occasions I have proposed motions calling upon the Council to make application to the Privy Council to obtain additional direct representation for England and Wales, as provided for in the Medical Act of 1886, but I regret to say that on each occasion the proposition was rejected by a large majority. If I continue to represent you on the Council I shall again press this question upon the members, but I fear nothing will be accomplished in that direction unless a direct appeal to Parliament be made. I shall do my utmost, both inside and outside the Council, to assist those who consider that their representatives on it should be elected by the graduates of the universities and the members of the corporations, and not solely by the senates and councils respectively. It is a satisfaction to me to report that during my term of office I have taken an active part in bringing about the promulgation of new regulations respecting the employment of unqualified assistants which have done more to protect the public against unqualified practice and to elevate the profession than any other measure adopted by the Council since the profession has had the privilege of sending Direct Representatives to the Council.

There are other points I would have desired to mention in this address, but must deal with them at the public meetings. I would therefore conclude by thanking you for the generous consideration shown towards me during my term of office, and by giving you the assurance that should you honour me by re-electing me as one of your representatives I shall, as in the past, do all in my power to serve your interests and to uphold the honour and dignity as well as the interests of our profession.

I remain, fellow practitioners, your obedient servant,  
6, Gibson-square, London, N., October, 1901. GEORGE BROWN.

#### MR. GEORGE JACKSON'S ADDRESS TO THE REGISTERED PRACTITIONERS OF ENGLAND AND WALES.

LADIES AND GENTLEMEN,—Having been invited by the Incorporated Medical Practitioners' Association, in conjunction with Mr. George Brown, to become a candidate as a Direct Representative on the General Medical Council, I have acceded to their request, and am encouraged to do so by the fact that I obtained 4082 votes at the last election, although very late in the field.

On the last occasion, omitting a bye-election caused by the resignation of Dr. Rentoul, the contest turned principally on the question of the registration of midwives, the votes in favour of it being only 8443, as against 26,040. I am now, as then, opposed to the registration of midwives, the creation of an inferior order of practitioners. The only way to settle this vexed question is by the registration of all nurses, who will be obliged to act under the direct control of duly qualified medical practitioners.

The objects which should engage the attention of the General Medical Council in the immediate future should be in my opinion:—

1. The reform of the Medical Acts, so as to provide for direct representation of the medical profession in every case except the Crown nominees.
2. Raising the standard of the entrance examinations and limiting the age of entrance so as not to be under 17 years.
3. The one-portal system of entrance to be secured by forming a Board of Examiners, composed of delegates from the present examining bodies.
4. Such an alteration of the Acts which will give the Council power to suppress quacks, &c., who practise medicine and surgery under various forms of colourable pretences.
5. A more definite pronouncement against medical men

acting as medical advisers to clubs and insurance societies whose agents tout for members.

For the information of those to whom I am unknown personally I may state that I have taken an active part in medical politics for more than 20 years. In conjunction with Mr. Reginald Harrison I set on foot some 20 years ago a movement which had for its object the voting by voting papers for the election of members of the Council of the Royal College of Surgeons, which was successful. About 15 to 16 years ago I endeavoured to establish locally a medical sick assurance society, and thus helped to prepare the way for the society which at present exists, and does such good work. In 1895 I was President of the Incorporated Medical Practitioners' Association, and had previously founded the Devon and Cornwall local branch of the same, which has done good work in checking irregular practice and the like. Last year I was a delegate of the Plymouth Medical Society to the medical organisation meeting at Manchester, and was appointed a member of the committee, which has had a great deal to do with the reform of the British Medical Association.

I have assisted in the work of establishing the Three Towns (Plymouth, Devonport, and Stonehouse) Provident Dispensary in conjunction with the local branch of the Incorporated Medical Practitioners' Association, which works on the principle of a wage-limit, *the management being entirely in the hands of the members of the staff.*

Asking the favour of your vote and interest,

I remain, your obedient servant,

GEORGE JACKSON,

F.R.C.S. Eng., ex-President and Vice-President of the Incorporated Medical Practitioners' Association and of the Devon and Cornwall Branch of the same, and ex-President of the Plymouth Medical Society.

10, Portland-villas, Plymouth, October, 1901.

#### DR. GLOVER.

Dr. Glover has, we regret to learn, lately suffered from a bad eye; he is now, however, much better. We are asked by him to say that he regrets much that, acting under strict medical advice, he is obliged to abstain from attending all public meetings for the present.

He feels confident that his constituents will realise with what reluctance he has to decline invitations from various places where it would be a great pleasure to him to meet them for the discussion of current questions. He ventures to hope that the inconvenience to them will be lessened by the fact that his views have been fully stated and reported on several recent occasions.

#### MR. VICTOR HORSLEY.

When Mr. Horsley was elected a Direct Representative of the profession on the General Medical Council at a bye-election he said that when the next quinquennial election came round he would resign and offer himself for re-election at the same time as the other candidates, thereby saving the profession the expense of multiple elections. He is now legally advised that he cannot take this course, as the wording of the Act places any man who resigns his seat on the General Medical Council in the position of a dead man. A successor must be elected; he cannot himself be re-elected.

## VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

In 33 of the largest English towns 6451 births and 3684 deaths were registered during the week ending Oct. 19th. The annual rate of mortality in these towns, which had been 15.6 and 15.9 per 1000 in the two preceding weeks, further rose last week to 16.8 per 1000. In London the death-rate was 16.0 per 1000, while it averaged 17.3 in the 32 large provincial towns. The lowest death-rates in these towns were 10.3 in Derby, 11.1 in Bristol, 11.2 in Croydon, and 11.5 in Huddersfield; the highest rates were 21.9 in Salford, 22.0 in Blackburn, 26.9 in Newcastle, and 28.8 in Gateshead. The 3684 deaths in these towns last week included 467 which were referred to the principal zymotic diseases, against 525 and 485 in the two preceding weeks; of these 467 deaths, 168 resulted from diarrhoeal diseases, 81 from measles, 71 from diphtheria, 59 from "fever" (principally enteric), 47 from scarlet

fever, 30 from whooping-cough, and 11 from small-pox. No deaths from any of these diseases occurred in Croydon or in Derby; in the other towns they caused the lowest death-rates in Cardiff, Swansea, and Halifax, and the highest rates in West Ham, Norwich, Blackburn, Sheffield, and Gateshead. The greatest proportional mortality from measles was recorded in Norwich, Blackburn, and Sheffield; from scarlet fever in Salford; and from diarrhoeal diseases in West Ham, Hull, Gateshead, and Newcastle. The mortality both from whooping-cough and from "fever" showed no marked excess in any of the large towns. The 71 deaths from diphtheria included 33 in London, six in Sheffield, five in Leicester, four in Brighton, three in Portsmouth, and three in Leeds. Eleven fatal cases of small-pox were recorded in London, but not one in any other of the 33 large towns; there were 172 cases of small-pox under treatment in the Metropolitan Asylums hospitals on Saturday, Oct. 19th, against numbers increasing from 11 to 175 on the 10 preceding Saturdays; 47 new cases were admitted during the week, against 44, 51, and 37 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had risen from 2994 to 3280 at the end of the six preceding weeks, had further increased to 3346 on Saturday last; 407 new cases were admitted during the week, against 460, 426, and 422 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 137, 132, and 186 in the three preceding weeks, further rose last week to 196, but were 72 below the corrected average number. The causes of 39, or 1.1 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Bradford, Leeds, Hull, and in 12 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Leicester, Liverpool, Blackburn, and Sunderland.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 14.5 and 16.1 per 1000 in the two preceding weeks, further rose to 16.9 per 1000 during the week ending Oct. 19th, and was slightly above the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 11.8 in Aberdeen and 13.4 in Leith to 18.9 in Perth and 22.9 in Greenock. The 537 deaths in these towns included 30 from diarrhoea, 15 from measles, 12 from diphtheria, 12 from whooping-cough, five from scarlet fever, and five from "fever." In all, 79 deaths resulted from these principal zymotic diseases last week, against 82 and 62 in the two preceding weeks. These 79 deaths were equal to an annual rate of 2.5 per 1000, which was 0.4 above the zymotic death-rate last week in the 33 large English towns. The fatal cases of diarrhoea, which had declined from 53 to 32 in the four preceding weeks, further fell last week to 30, of which 11 occurred in Glasgow, five in Dundee, four in Edinburgh, three in Aberdeen, and three in Paisley. The deaths from measles, which had been 12, 14, and six in the three preceding weeks, rose again to 15 last week, and included 14 in Glasgow. The fatal cases of diphtheria, which had been six in each of the two preceding weeks, increased last week to 12, of which seven were registered in Glasgow and two in Greenock. The deaths from whooping-cough, which had declined from 13 to five in the four preceding weeks, rose again to 12 last week, and included eight in Glasgow and three in Edinburgh. The fatal cases of scarlet fever, which had been seven in each of the two preceding weeks, declined last week to five, of which two occurred in Glasgow and two in Greenock. The deaths referred to different forms of "fever," which had been six in each of the two preceding weeks, decreased to five last week, and included three in Edinburgh. The deaths attributed to diseases of the respiratory organs in these towns, which had been 101, 77, and 75 in the three preceding weeks, rose again last week to 97, but were 20 below the number in the corresponding period of last year. The causes of 22, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 17.8, 19.9, and 19.7 per 1000 in the three preceding weeks, rose again to 19.9 per 1000 during the week ending Oct. 19th. During the

past four weeks the death-rate has averaged 19.3 per 1000, the rates during the same period being 15.2 in London and 15.6 in Edinburgh. The 143 deaths of persons belonging to Dublin registered during the week under notice were within one of the number in the preceding week, and included 10 which were referred to the principal zymotic diseases, against 17, 20, and 21 in the three preceding weeks; of these, five resulted from diarrhoea, three from "fever," one from diphtheria, and one from whooping-cough. These 10 deaths were equal to an annual rate of 1.4 per 1000, the zymotic death-rates during the same period being 1.8 in London and 2.0 in Edinburgh. The fatal cases of diarrhoea, which had been 11, 9, and 14 in the three preceding weeks, declined again to five last week. The deaths referred to different forms of "fever," which had been three, eight, and six in the three preceding weeks, further declined last week to three. The 143 deaths in Dublin last week included 36 of children under one year of age and 42 of persons aged upwards of 60 years; the deaths of infants corresponded with the number recorded in the preceding week, while those of elderly persons showed a very marked increase. Six inquest cases and three deaths from violence were registered; and 47, or about one-third, of the deaths occurred in public institutions. The causes of four, or nearly 3 per cent., of the deaths in Dublin last week were not certified.

## THE SERVICES.

### REFORM IN THE WAR OFFICE.

THE following statement has been issued by the War Office with regard to the War Office Council.

1. The Secretary of State has directed that in future the War Office Council shall be constituted as follows:—

President—

The Secretary of State for War.

Members—

The Commander-in-Chief.

The Parliamentary Under-Secretary of State.

The Permanent Under-Secretary of State.

The Financial Secretary.

The Quartermaster-General.

The Inspector-General of Fortifications.

The Director-General of Ordnance.

The Adjutant-General.

The Director-General of Mobilisation and Military Intelligence.

The Director-General, Army Medical Department (for medical and sanitary questions).

The Secretary of the Council.

And such other members of the Staff of the War Office as may be specially summoned from time to time.

2. In the absence of the Secretary of State the Commander-in-Chief will act as President.

3. The Council will meet on Mondays, unless otherwise ordered, at 12 o'clock, in the Secretary of State's room.

4. The Council will discuss such matters as may be referred to it by the Secretary of State and any question brought before it by individual members. In order that a *précis* may be prepared notice of the matters for discussion, together with the office papers on the subject, should reach the Secretary not later than the Wednesday evening before each meeting.

5. Records of the proceedings will be kept and copies will be supplied to each member.

In addition to the foregoing there is to be a *Permanent Executive Committee of the War Office*, under the presidency of the Permanent Under-Secretary of State, or in his absence of the Assistant Under-Secretary of State, with certain military and other officials, and the Deputy-Director-General, Army Medical Department, or an officer selected by the Director-General, as members; and the present *Army Board*, of which the Director-General of the Army Medical Service is constituted a member, will be continued. Special departmental committees will also be formed on approval of the Secretary of State for War whenever required, and forward their reports in the first instance marked to the Secretary of the War Office Council.

### ROYAL NAVY MEDICAL SERVICE.

The following appointments are notified:—Staff Surgeon T. J. Crowley to the *President*, additional, for three

months' course for hospital study. Surgeon H. C. Arathoon to the *Vivid*.

#### ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel U. J. Bourke is held in readiness to embark for service in Mauritius. Major E. H. Myles is appointed to the medical charge of the Station Hospital at Kasauli and Captain H. A. L. Howell is appointed to the medical charge of the Station Hospital at Khandalla. Captain G. B. Stanistreet, on arrival in the Southern District for duty, is posted to Parkhurst and takes over medical charge of the troops and Station Hospital there from Major A. E. Tate.

Major James E. Nicholson to be Lieutenant-Colonel. Dated Sept. 4th, 1901.

#### VOLUNTEER CORPS.

*Artillery*: 1st Cheshire and Carnarvonshire: Surgeon-Major E. J. Lloyd to be Surgeon-Lieutenant. *Rifle*: 1st Volunteer Battalion the Royal Warwickshire Regiment: Supernumerary Surgeon-Lieutenant A. H. McDougall to be Surgeon-Lieutenant on the Establishment.

#### SOUTH AFRICAN WAR NOTES.

Captain G. S. McLoughlin, R.A.M.C., has been discharged from hospital to duty.

The following are on passage home:—Lieutenant-Colonel J. McLaughlin, R.A.M.C., and Civil Surgeons H. H. G. Knapp, J. A. H. Brincker, and W. J. Moir.

Surgeon Lieutenant-Colonel C. R. Kilkelly, C.M.G., Grenadier Guards, principal medical officer of the Imperial Yeomanry Hospital at Elandsfontein, in his report for the week ending Sept. 26th shows that the total admissions to that branch of the Imperial Yeomanry Hospitals were 294, and that there remained in the hospital at that date seven officers and 116 non-commissioned officers and men. Mr. J. G. Hamilton, the honorary civilian director of these hospitals, in his letter of this week, reports that Messrs. Petersen and Wentworth have added greatly to the brightness of the hospital by sending several wagon-loads of young trees and shrubs, which were being planted round the tents and on the southern boundary of the camp. Numerous other friends had contributed bulbs and flowers, giving the grounds almost the appearance of a horticultural show.

#### AN AMERICAN HOSPITAL SHIP.

In the *Archives de Médecine Navale* for September Dr. Bellot, a senior medical officer in the French navy, gives a highly appreciative account of the American hospital ship *Relief* which he had the opportunity of inspecting recently in Chinese waters. Being himself in medical charge of the *transport-hôpital la Nive* the writer was well qualified for his task and evidently carried it out with great care and minuteness. Originally the *Relief* was built for river and coasting passenger traffic, but when the war with Spain broke out she was converted into a hospital ship under naval management. Capable of steaming 18 knots per hour and with sufficient coal-storage for a voyage between the Sandwich Islands and Japan she was in most respects well suited to her new career, but on the other hand her light draught detracted from her seaworthiness. What seems to have chiefly impressed Dr. Bellot was the spacious loftiness between decks, together with the abundance of light and fresh air which pervaded the whole vessel. The sick were accommodated on two decks reaching from stem to stern, the crew and machinery being established below, and the officers above in a structure which is described as "*une sorte de château*." Almost flush with the water there was "*une immense porte*" capable of admitting laden stretchers with the utmost facility, while internally the numerous channels of intercommunication were thoroughly in keeping. Painted white, with slight gold lines for relief, the interior of the ship, as well as the fittings and appliances, was washable throughout, lending itself readily to efficient disinfection. In the wards there were two layers of beds, one above the other, but each patient had a complete bedside equipment to himself. An apparatus for keeping food cool in summer or warm in winter struck Dr. Bellot as particularly admirable. It consisted of a wheeled receptacle with double walls affording space for ice or hot water according to season. The French officer drank a glass of milk from one of these chests and found it "as agreeable as the most esteemed fresh milk." It came from New Zealand, having been preserved without

either sugar or evaporation, but he regretted that he could not find out the name of the producer. In one of the kitchens that was inspected the cooking was done by electricity. To obtain any required temperature all that was necessary was to press a button. Needless to say, the "sanitary arrangements," as water-closets, baths, &c., are popularly called, were not only excellent, but even luxurious, and that just as much for the rank and file as for the officers; while "everywhere hot and cold water, fresh or salt, circulated on demand." On the upper deck there was an operating-room which with its equipment "approached perfection," and although slightly smaller the research laboratory was supplied with all that could be desired. The *Relief* was entirely under the control of the chief medical officer.

#### SOUTH AFRICAN AFFAIRS.

There is but little to be chronicled in the way of war news. The process of grinding down the enemy's forces is a slow machine-like method. It seems to be the only one, however, that can be pursued under the circumstances. The extent of country over which the war is spread and the numerous independent bodies of Boers in the field and the apparent impossibility of surrounding them and compelling them to fight are the difficulties. The supply problem has become a gigantic one for the War Office in view of the number of our forces in the field, the concentration camps, and the very large number of Boer prisoners who have to look to this country for all they want. The number of lives among the refugees being sacrificed to the exigencies of war in the concentration camps despite all our efforts is pitiful enough, but it seems to be mainly attributable to neglect and ignorance of the most rudimentary laws of hygiene on the part of the Boer population, to the prevalence of epidemic diseases and the extreme difficulty of supplying and preparing suitable food for infants and children. All that can be said is that had the Boer women and children been left to shift for themselves—a course which probably any other nation than England would have taken—the results would have been infinitely worse, although such a policy might in the end have proved a more merciful one. Their natural protectors would not then have been free to fight against us with the knowledge that their families were being all the while taken care of. The sick returns from the seat of war are, as regards British troops, altogether more favourable than they were.

#### WARM CLOTHES FOR RETURNING SOLDIERS.

Major-General the Hon. H. F. Eaton asks us to allow him through the medium of our columns to express his thanks to all those who so generously responded to his appeal from the Soldiers and Sailors Help Society, for clothing for soldiers returning from South Africa, and points out that their special needs at this season are warm overcoats and strong boots, which will be most gratefully received by Captain Simpson, 70, Victoria-street, S.W.; at the employment branch of the Soldiers and Sailors Help Society, 115, Ebury-street, S.W.; at the offices of the Soldiers and Sailors Help Society, 17, King-street, St. James's, S.W.; by Captain S. Waters, 28, Overton-road, Brixton, S.W.; and by Mr. Oliver Williams, 71 and 72, King William-street, E.C.

#### PORTLAND HOSPITAL REPORTS.

Major-General the Hon. Herbert F. Eaton, secretary of the Portland Hospital, asks us to mention that members of the Portland Hospital staff or patients who have passed through this hospital may obtain one of the remaining copies of the reports on remitting 3s. to Mr. Oliver Williams, 71 and 72, King William-street, E.C.

#### ROYAL ARMY MEDICAL CORPS SOUTH AFRICA FUND.

A meeting of the General Committee of this fund will be held to-day (Friday, Oct. 25th) at 5 P.M., at 58, Portland-place, W., to consider the despatch of a Christmas gift to the corps and the closing of the fund. H.R.H. Princess Christian of Schleswig-Holstein will preside.

The King has been pleased to approve of the appointment of Surgeon-General W. Taylor, C.B., to be Director-General, Army Medical Service, and on the retirement, on Dec. 31st next, of Surgeon-General H. S. Muir, C.B., that of Lieutenant-Colonel A. Keogh, C.B., to be Deputy Director-General, with the temporary rank of Surgeon-General.

## Correspondence.

"Audi alteram partem."

## "NOTIFICATION OF INFECTIOUS DISEASE."

To the Editors of THE LANCET.

SIRS,—As my name has been incidentally mentioned by Sir W. T. Gairdner in his letter on the above subject in THE LANCET of Oct. 19th, p. 1074, I trust that I may be permitted to record two instances that strongly support his argument for an amendment of the Notification Act. Five years ago I was called to a young woman, aged 18 years, with a generalised papular rash, a temperature of 103° F., and a history of severe illness for three days. The mother was certain that the patient had measles when a child, so the question of German measles was raised by her. At the time I had only been two years in general practice, so that my experience of infectious and other diseases was limited. I was unable to make a definite diagnosis of the case, so I prescribed for the urgent symptoms and said that I should call the following day. In the interval I went over again the literature of German measles and all skin eruptions with a temperature and concluded by forming a strong suspicion that this was a case of typhus fever. I had never to my knowledge, as a student or as a practitioner, seen a case of typhus fever, for, mainly owing to the brilliant work of Sir W. T. Gairdner while medical officer of health of the city, it has been in recent times a comparatively rare disease in Glasgow. On calling the next day I found the patient no better but still I could not definitely say that it was typhus fever. To call in a consultant was out of the question as the people were so poor that they could not pay for my second visit. Becoming alive to the fact that if it was a case of typhus fever then the sooner the patient was in hospital the better for herself and the community at large I sent to Dr. J. B. Russell, the then medical officer, a notification of typhus fever, with a note of interrogation after it to imply an indefinite diagnosis. He afterwards informed me that the case was typhus fever. The patient was promptly removed to the hospital while the other members of the household, two of whom, I believe, developed typhus fever, were removed to the reception house for contacts. There had not been a case of typhus fever in the city for months prior to it and there was no other case of typhus fever from the same locality for months after this. I was convinced at the time, and am still more convinced from what I have seen since, that if I had waited until I could have formed an exact diagnosis I should have had, not one, but several cases to notify, for the case occurred in a locality which has a density of something like 300 per acre.

The other instance became so famous that I confess to much diffidence in referring to it. It was the first to be recognised of the cases of bubonic plague in the outbreak here last year. These cases are fully reported in THE LANCET of Sept. 8th, 1900, p. 758, and the point I wish specially to emphasise, as bearing on the question under discussion, is that here again an indefinite and not a definite diagnosis was notified. When I examined these three cases in the same house, on my first and only visit, there was no difficulty in saying that whatever was the exact nature of the disease it was undoubtedly infectious. I determined to notify them at once as cases of enteric fever, with a query to indicate an incomplete diagnosis. I did so after calling on the medical man in attendance, who notified them at the same time in a similar manner. If we had delayed much longer for the purpose of forming an exact diagnosis what would have happened is obvious.

One word on the opposite side of the question. The other day I sent into the Ruchill Fever Hospital a baby of nine months notified as diphtheria (?). It was recovering from an attack of measles, when it suddenly developed that hoarseness and urgent suffocative breathing that so often indicate the beginning of laryngeal diphtheria. I was officially informed that the case was regarded as one of simple laryngitis, while the mother told me in angry tones that I had made a great mistake, for the child had no diphtheria, but the "dregs" of measles, and was put among the patients convalescing from that disease where it is at present. Now, what harm was done in this case? If I could have isolated

the child for a day or two with any degree of safety to others I would never have sent it away. But isolation was impossible in a house full of children as well as a block full of children, and I knew from previous experience that while waiting for the development of conclusive symptoms, and if it had been a case of laryngeal diphtheria, I should have more than one case to notify. The only harm done—and it was slight—was to my professional reputation, and even this might have been avoided if the mother had been simply told whether the child was better or worse and no opinion expressed on the diagnosis. The only other point is the notification fee. Personally I do not care a straw whether I am allowed it in this and similar cases. I could, however, claim it for the general practitioner solely on economic grounds, inasmuch as the majority of his suspicions will be confirmed and by thus limiting the spread of the disease he will considerably diminish the number to be treated in hospital at the public expense.

I am, Sirs, yours faithfully,

Glasgow, Oct. 21st, 1901.

THOMAS COLVIN.

## ROYAL MASONIC INSTITUTION FOR BOYS: CASE OF REGINALD E. A. WEBSTER.

To the Editors of THE LANCET.

SIRS,—May I be allowed on behalf of all interested in Reginald E. A. Webster's election to the Royal Masonic Institution for Boys to thank you and the many medical Masons who so kindly helped us? By your aid he was placed first on the list of 20 successful candidates with 7137 votes.

I am, Sirs, yours faithfully,

Queen Anne-street, W., Oct. 15th, 1901.

JOSEPH POLLARD.

## THE TOXIC ACTION OF BELLADONNA PLASTER.

To the Editors of THE LANCET.

SIRS,—In confirmation of your remarks on the above in an annotation in your issue of Oct. 19th, p. 1061, may I refer you to the following extract of my "Rough Notes on Remedies" which appeared in THE LANCET several years ago:—

"I may here remark that special caution ought to be observed in ordering or applying a belladonna plaster of large size. Anything over six, or even five, inches square is almost sure to produce some systemic effects, such as slight giddiness and uncertainty of gait and vision; and later, when the plaster produces pustular irritation, a fresh absorption of belladonna sometimes takes place, with a more decided occurrence of the above symptoms, and so susceptible are some that the mere application of a small belladonna plaster will produce the above effects with great violence."—I am, Sirs, yours faithfully,

WM. MURRAY, M.D. Durh., F.R.C.P. Lond.

Swinburne Castle, Northumberland, Oct. 19th, 1901.

## THE MORALS OF THE CONCIERGE.

To the Editors of THE LANCET.

SIRS,—I quite agree with what your Special Commissioner says about the *concierge*. I have considerable experience of him myself in Paris and he is a well-known character on the French stage. All the same I think the remarks hardly apply in this country where any system of espionage is not only unknown but abhorrent. I was very precise in defining the duties imposed on caretakers by the Workmen's Dwellings Company—viz., (1) to select tenants, satisfying themselves first, that they are of good character, and secondly, that the income of their household is low enough to justify their admission into the company's property; (2) to supervise the people generally, to prevent over-crowding and sub-letting, and to enforce order and quietness; (3) to prevent the improper use of the water-supply, water-closets, washing-houses, dust-shafts, &c.; (4) to enforce the cleansing of stairs, landings, balconies, courts, chimneys, &c.; (5) to report infectious disease to the authorities; and (6) to execute minor repairs.

I am satisfied that strict caretaking of all tenement houses on these lines would go a long way to get rid of the dirt and

disease which are looked upon as almost inseparable from so-called slum dwellings.

I am, Sirs, yours faithfully,  
D. M. STEVENSON.  
Glasgow, Oct. 21st, 1901.

## MALARIA AND MOSQUITOES.

*To the Editors of THE LANCET.*

SIRS,—In the early "eighties" I was practising on the Diamond Fields, South Africa, where malaria of the remittent type was very prevalent. At that time, I can safely say, there were no mosquitoes in camp. Our population numbered some 70,000. Some two or three years later, with the extension of the railway from Cape Town, came the first batch of these pests. But malaria, notwithstanding, steadily decreased both in my own practice (by no means a small one, as I was surgeon to various compounds in addition to being acting district surgeon) and elsewhere, generally speaking. I am a happy hunting-ground for all sorts of vampires—if I may here use the expression—and have endured martyrdom from bites. This week, whilst sitting on the front at Southend, I was bitten by a mosquito—I regret I was not sufficiently interested to preserve the specimen—and suffered worse than I ever remember, even abroad. I am surely saturated with mosquitoine (may I coin a word?) yet I am immune from neither malaria nor mosquitoes.

I am, Sirs, yours faithfully,

DAVID HARRIS,

Formerly Medical Officer of Health, Diamond Fields.

Imperial Service Club, Piccadilly, Oct. 9th, 1901.

## "THE AFTER-COMING HEAD; PREVENTION OF ASPHYXIA."

*To the Editors of THE LANCET.*

SIRS,—Dr. Blacker (THE LANCET, Oct. 19th, p. 1034) says: "..... It becomes a question whether it is not better practice to extract the head at once, even at the risk of a bad tear of the perineum, rather than to attempt to initiate the act of respiration while the head is still within the vagina." I should have thought cases must at times occur in which the tube method would provide just the few minutes' extra time required for proper relaxation of a rather tight outlet. I have often been surprised at the rapid relaxation which sometimes occurs during the four or five minutes preceding the birth of the head in a normal delivery, and this seems to me a reason why in a breech case a gain of a few minutes between the delivery of the trunk and of the head might sometimes be most useful. I should be grateful to Dr. Blacker, who points out that the method referred to is not approved—or even mentioned—by modern authorities, for further information on this point, and should like to know (1) if the tube method sometimes fails, and if so, why? (2) what are the objections to its use?

I am, Sirs, yours faithfully,

Upper Tooting, Oct. 22nd, 1901.

EDWIN SMITH.

## "THE HOME OFFICE ARBITRATION ON LEAD-POISONING."

*To the Editors of THE LANCET.*

SIRS,—I see from your annotation on this subject that you are under some misapprehension. You speak of the manufacturers and the workpeople as "one side" and "the other side" and imply that the Home Office is arbitrating between them, like the Board of Trade in industrial disputes. The case is entirely different. The arbitration is between the Home Office and the manufacturers *plus* the workmen, both of whom object to the proposed rules. It is quite right that the workmen should be represented and I hope they will be, equally with the manufacturers, but to speak of the two as "one side" and "the other side" is to mis-state the position. They are both, for different but not antagonistic reasons, on one side; the Home Office is the other.

I am, Sirs, yours faithfully,

Savile Club, W., Oct. 22nd, 1901.

A. SHADWELL, M.D.

## THE RECONSTITUTION OF THE ROYAL ARMY MEDICAL CORPS.

*To the Editors of THE LANCET.*

SIRS,—In THE LANCET of Oct. 5th, p. 929, you published the scheme for the reorganisation of the army medical services and in your leading article you stated the favourable impressions which you had received from your first perusal of the report of Mr. Brodrick's Committee, and expressed a lively sense of recognition of the earnest attempt which had been made to place the Army Medical Services upon a new and better footing. You regarded the report as the sketch of a scheme moulded on certain lines and admitting of a good deal of freedom of action in the way of such improvements and modifications as might hereafter be found necessary or advisable, pointing out that some of its recommendations must as regards their effect and working partake more or less of the nature of an experiment. I have now had time and opportunity to consider thoroughly the proposals, and while agreeing that this scheme is an earnest attempt to set the Royal Army Medical Corps on a basis of real excellence, yet I feel that carefully considered comments, even when adverse, can only be of service to the authorities. The proposals which I believe will not prove to be acceptable are partly the result of the composition of the Committee, which perhaps contained too much of the civilian element to enable it to understand correctly military medical problems, and are partly due to the complexity of the questions involved and the great practical difficulties which stand in the way. There is much that is good, indeed very good, in the proposals, but I believe that I am right in stating that certain modifications are absolutely necessary before a sufficient number of men will be attracted to the ranks of the Royal Army Medical Corps.

It is a fair arrangement that opportunities are to be given for suitable civilians over age who have served with troops in the field to enter the corps, and an excellent point that all candidates shall appear before an Advisory Board who will decide whether they may be allowed to compete for commissions. This appearance will give the required opportunity for the consideration of the social status of each candidate and of his fitness from this important point of view to hold a commission in His Majesty's army.

I have my doubts as to the "workability" of an Advisory Board with such extensive functions. Its number is, I think, too large for a working committee, and I fear that its observations and decisions may prove a cloak under which the sense of responsibility may in a great measure be lost by the Director-General. The pay of the civilian members has been fixed at too low a rate to prove an attraction to really good men; where an onerous duty to the State is required reward commensurate with the work and responsibility must be tendered. It must be remembered that an Advisory Board has been tried before and proved a conspicuous failure. It appears to me that the power and prestige of the Director-General will be diminished, though his pay is to be considerably increased. I am of opinion that his power should be retained and his usefulness be increased by appointing him to a seat on the Army Board, his opinion being limited to medical affairs, and that he should be given the real rank of a Lieutenant-General. The eleventh paragraph for the guidance of the Advisory Board is surely unnecessary, for it shows a want of confidence in the officers of the corps. It is, I think, a grave mistake to imagine that men of high training, military rank, and position will submit to a proposition that members of the Advisory Board may inspect the hospitals without notice of their intention. I am glad to see that it is proposed that the London examination shall be restricted to a clinical and practical examination in medicine and surgery, and that the subjects studied in the earlier days of the medical curriculum are not to be required from the selected candidates.

The scheme of sending lieutenants to Netley on probation for two months does not commend itself to me. I am surprised to see that the subjects of military surgery and tropical medicine are no longer apparently to form a part of the Netley curriculum, and I think that to cram the young lieutenants with bacteriology and hygiene for two months is a decided error; in two months little or nothing of these sciences can be usefully acquired, and I believe that the result will be the acquisition of an unpractical smattering of knowledge which will be only too readily forgotten.

The idea of allowing men holding resident appointments in recognised civil hospitals, or appointed thereto at such a date as will permit them to take up their duties immediately after they have passed the entrance examination for the Royal Army Medical Corps, is an excellent one, but I doubt the possibility of its practical application unless the numbers of the corps are to be largely increased. I remember hearing of one occasion when, at the commencement of a Netley session, the gentlemen who had held house appointments in civil hospitals were requested to stand up in the lecture theatre, the result being that nearly every man rose from his seat. With a regulation in force permitting men to enter the service before holding resident appointments I take it that the object of the candidates will be to enter as soon after qualifying as possible, and if the civil hospitals are willing to take them back for their house appointments but few men will be available in each batch to proceed to Netley and Aldershot for the appointed courses; but I rather doubt the willingness of the civil hospitals to give these posts to men who have already committed themselves to a career in which they can be of no future service to the consulting staffs of the various hospitals. I suggest that the period of a year passed as a house-surgeon or house-physician in a recognised hospital shall be allowed to count towards pension and promotion, whether the period were so spent before or after passing the entrance examination for the service. The time for which each lieutenant will be attached to a battalion is not specified, although a period of three years is implied. While considering this point a valuable one, as one destined to bring about a good feeling between the regimental and the military medical officer, I much doubt if any period of less than three years would suffice to do this.

The paragraphs which deal with the position of lieutenants after three years' service present an elaborate scheme which must have occupied considerable time in its preparation. I think it of importance that at the end of three years the services of an officer who has proved himself undesirable may be dispensed with, but what the opinion of candidates for the examination for commissions will be on this point is another question. In my experience youth is unconscious of its failings and shortcomings, but is little likely to place any confidence in such an unassured future. I altogether dissent from the proposition to accelerate promotion according to a scale of marks obtained at an examination: such a scheme is most difficult to carry out and must lead to envy, hatred, malice, and all uncharitableness. A far better plan, in my opinion, would be to give a graded pay at extra rates for the result of a practical examination, giving a separate rate of pay to men who reach the higher standards of efficiency and as far as possible employing them on special work, but allowing seniority to remain as it was in the corps. This criticism is equally applicable to the acceleration proposed as the result of the examination for the rank of major; I regard all such promotion as vicious and likely to bring about great dissatisfaction. On the other hand, to leave seniority as it was in each rank and to give extra pay to high-class specialists would be an excellent move and one which would meet a real want in the service as at present administered. The proposed sum of 2s. 6d. a day I regard as quite insufficient for this real need. I cannot imagine that officers will care to qualify as specialists to gain such an insignificant advantage. I regard the proposed examination before the completion of 20 years' service as an unnecessary evil. I maintain that to subject an officer of 45 years of age to such an ordeal is a ridiculous proposition and one which will keep candidates from coming forward for the public service. In no other learned profession is a man so examined for promotion to posts of responsibility—especially would it be wrong in a service like the Royal Army Medical Corps, for after men have been for years in India and other tropical countries where their physical and mental vigour is deteriorated it would be unfair to subject them to such examinations. If considered necessary, by all means let the promotion to the rank of lieutenant-colonel be by selection, but let this selection be a result of the qualifications shown by the officer as observed and reported on by the officers under whose command the 20 years of service have been completed.

I regard the touching of the pension of £1 a day after 20 years' service as one of the most serious mistakes proposed. Under this scheme the £1 a day cannot be counted

on, and hitherto it has been one of the greatest attractions to the service. This retiring allowance must be always conceded or I feel certain that candidates will not be forthcoming from the schools. It is quite unfair, I consider, to expect that men will run the risks of tropical service and permanent ill-health if their future is not secured to them—many men are more or less broken down by 20 years of service and a sum of £2500 cannot in any way be considered an adequate provision, for it will only produce an income of two figures. The eligibility of officers for brevet promotion is a good one, and I note with satisfaction that it is to be given for distinguished service of an exceptional nature as well as for distinguished service in the field. Charge pay of a hospital is also a welcome introduction. The arrangements for the treatment of patients under the principal medical officer in each army corps appear to me to be excellent, and I am glad to see that steps are to be taken to simplify the returns and the forms of accounts used in hospitals.

I consider the proposed rates of pay to be adequate to attract good men if some modifications are introduced in the conditions of service, but the pay of the colonel should be substantially added to. I do not think that £1200 a year would be too much to offer to this rank, and I would point out that on the proposed scale a colonel, if not in charge of a hospital, would actually draw less than a selected lieutenant-colonel holding such a charge.

The scheme put forward is of course a mere outline and I take it that it is published with the view of obtaining the opinion of the profession on all the questions involved. I would remark that in order to be of any real service to the State the Advisory Board must have more than a power to advise—there must be some guarantee that the advice tendered will be taken. I observe that nothing is said definitely as to the very necessary increase to the number of officers required for the corps. I believe that any number less than 1250 officers will not permit of the proposed study leave—which I regard as one of the most valuable recommendations of the Commission—if sufficient ordinary leave is to be permitted to the officers for rest and relaxation. The question of pay for the junior officers in India is but indefinitely touched on. The Indian Government, which has hitherto proved almost intractable, must be bound by a clearly-worded warrant as to the scale of Indian pay, which must include a proper rate of charge-pay for those officers who have the great responsibility of the charge of hospitals. I am glad to see that every army corps is to have a completely equipped bearer-company and field hospital and a proportion of other medical field units at its headquarters, for without such a provision it is impossible for the officers and men of the Royal Army Medical Corps to gain practical experience in the performance of field duties. I hope that a scheme which contains so much that is good will not be wrecked by the want of a real knowledge of the feelings of the profession, but I am fairly confident that the proposals, unless modified, will not bring forward either the kind or the number of competitors required.

I am, Sirs, yours faithfully,

Oct. 15th, 1901.

A WELL-INFORMED OBSERVER.

#### *To the Editors of THE LANCET.*

SIRS,—Your various correspondents seem to have confined their criticisms of the recommendations of organisation to the Advisory Board, the examinations, and such like things, whilst its pecuniary aspect appears to have been almost entirely passed over, it being taken for granted that a very substantial increase of pay is offered. I think, Sirs, I can show you that so far from this being the case the state of the corps will be much worse. For any man to enter the Royal Army Medical Corps merely for the sake of the annual pay would, of course, be absurd. The inducement lay in the pension, given after a certain number of years' (20) service. Was this not given no man in his senses, unless he was an utter failure, would think of joining. This inducement is now done away with, as after 18 years' service he can be compulsorily retired with a gratuity of only £2500. It is very true that the new scheme says that he is given his choice of remaining if he passes a certain examination, but we all know what this means. A word from the Treasury if economy was the order of the day and this choice would be

either withdrawn or the examination so screwed up as to be impassable, and out he would have to go *volens volens*. I speak of what I know when I say that the chance of any average man—unless he is blessed with influence in high places—being permitted to retire on a pension is not worth a button.

I have two sons on whose medical education I have spent about £2000. They have asked my advice and I tell them: "Infinitely better run your luck in private life than join a service from which you will be kicked out when too old to start life afresh and very likely with broken health."

I am, Sirs, yours faithfully,

Clifton, Oct. 22nd, 1901.

A FATHER.

P.S.—The following table shows the sum received during and after 20 years' service under the old and new scheme:—

Old Regulations.			Proposed New Ones.		
	£	s. d.		£	s. d.
5 years at £200 per annum	1000	0 0	3 years at £250 per annum	750	0 0
5 years at £250 per annum	1250	0 0	4 years at £287 per annum	1148	0 0
2 years at £273 15s. per annum	547	10 0	3 years at £307 per annum	921	0 0
3 years at £365 per annum	1095	0 0	2 years at £385 per annum	770	0 0
5 years at £410 12s. 6d. per annum	2053	2 6	3 years at £430 per annum	1290	0 0
	5945	12 6	3 years at £475 per annum	1425	0 0
Add pension of £1 per day, capitalised	5000	0 0		6304	0 0
	10,945	12 6	Add gratuity	2500	0 0
				8804	0 0

Or a difference of £2100 in favour of the present regulations. It will be noticed that the pay alone under the new scheme is £359, or just £20 per annum more.

## THE APPOINTMENT OF ASSISTANT MEDICAL OFFICER AT AN ASYLUM.

To the Editors of THE LANCET.

SIRS,—In a very few of the advertisements of vacancies for these appointments there is now being inserted a clause stipulating for annual re-election after service for a stated period of time. I should like to offer a word of caution to candidates applying under these conditions and to indicate, in the event of success, how such a clause may operate unfavourably and prejudicially. In appointments under the Metropolitan Asylums Board or in asylums where the governing body exercises a working control the danger that I fear may be non-existent, and the assistant medical officer may have a fair chance of his abilities and worth receiving recognition, but in an asylum where the medical superintendent is permitted to dictate and arrange the duties of every officer under him, and further to act as an impassable barrier between the committee and all subordinate servants of the institution, it is evident that the assistant medical officer must regard himself as totally dependent on the favours of the superintendent.

I have not personally experienced the effects of such a clause as I mention, but in the asylum in which I served for a number of years I can easily imagine the manner in which it may be used. The visiting committee never by any means became directly acquainted with the work of the officers and servants. Visitation of the wards and offices of the asylum was strictly confined to a 10 or 15 minutes' bi-monthly run (personally arranged and carefully conducted by the medical superintendent) through the male or female patients' divisions. Exceptional or occasional visits at unknown times or to entertainments, services, or special functions were never made. Not the slightest effort was ever made to ascertain or verify assigned reasons for removals or departures of members of the staff. The principles guiding the selection or appointment of subordinate officers, attendants, or nurses were beneath notice and practically every administrative and executive power was left with childlike trustfulness in the hands of the medical superintendent.

I must say in fairness that this condition of affairs had very little effect on me individually and the same may apply

to the prospective assistant medical officer to whom I address myself, yet I know of the grossest injustices having arisen from this state of affairs and of which the committee were kept in blissful ignorance. In such a case, it simply amounts to this, that the subordinate must first gain the personal favour of his senior officer. Given this he may succeed; but once forfeit or lose it and no amount of ability, devotion to duty, scientific work, or anything else will benefit him one jot or tittle. He is practically as dependent on the superintendent as if he were salaried and paid by him instead of by a public body that ought to have sense enough to perceive that *sometimes* it may even be for the institution's good that subordinate officers should have at least a modified measure of independence. Any attempt at this on the part of the assistant medical officer individually would simply result in his being crushed on the first favourable opportunity, and the committee—well, the committee would swallow, quite complacently, the bolus provided. Certain superintendents wish this opportunity to occur annually.

I am, Sirs, yours faithfully,

Oct. 22nd, 1901.

Ex-A. M. O.

## NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

*Great Increase of Plague Mortality.—Death-rates of Madras, Bombay, and Calcutta.—Training for Sanitary Officers in Bombay.—The Sanitary Shortcomings of Madras City.*

LAST week's returns merely showed a temporary suspension of the rise in plague mortality which has been going on for the past two months. This week there is a large and sudden increase from 5612 deaths to 7279. The Bombay districts return 6499 deaths, against 4844—chiefly in the Dharwar (1951), Belgaum (1290), and Satara districts—Bombay city 233, against 236; Mysore State 290, against 342; Bengal 99, against 72; Calcutta 16, against 13; Punjab 90, against 57; and the North-West Provinces 28, against 18. Benares district returned 18 deaths and Allahabad district 10. The widespread distribution of the disease is now very evident, and the increase in Bengal, the Punjab, and the North-West Provinces is very ominous.

The high death-rate of Madras has gone down, the last published figures giving it at 89 per 1000. The mortality, however, continues very high in some parts of the city. The death-rate in Bombay city is 58 per 1000, and that of Calcutta 25 per 1000. For the latter city there is a vast difference between the health of the urban area as compared with the suburbs. The latter has a death-rate of 38 per 1000, calculated on the old census figures, while the former is only 28 per 1000 by the same figures.

An important step in the direction of training sanitary officers has been taken in the Bombay Presidency. The idea is to train a class of sanitary engineers and health officers to take up posts in the Mofussil now filled by men with no special qualifications. The necessary instruction will be given at the Poona College of Science and practical work in the health and drainage departments of the Bombay municipality will be given by the health officer.

Bombay has got its improvement trust for the reconstruction and general improvement of the native parts of the city; Calcutta is waking up to its duties by dealing on an extensive scale with the remodelling of its insanitary bustees; and now it is high time that Madras should bestir itself and venture upon some general scheme of improvement. There are, for example, the dirty drains of Black Town to be got rid of. The health officer reports that "hardly any of the openings into the main drain of Black Town are trapped and the smell given off at various points from it is most offensive." Then there are the slaughter-houses—overcrowded, antiquated, and unprovided with many necessary arrangements. Again, there is little done to protect the public as regards its food supplies. The Health Department greatly wants strengthening in this direction, as immense quantities of bad meat, bad milk, and adulterated food-stuffs are sold practically without hindrance. The average death-rate of nearly 50 per 1000 is a strong indication that the sanitary requirements of the city have been neglected.

Oct. 5th.

## SANITATION AT EDINBURGH.

(FROM OUR SPECIAL SANITARY COMMISSIONER.)

So important an intellectual and educational centre as Edinburgh is in honour bound to keep well to the front in all matters relating to the preservation of public health. Yet this is no easy task. Like many other ancient and historical cities, Edinburgh was once surrounded by walls. The dwellings within these fortifications were consequently cramped for room and were therefore built to a great height and close together. Many houses abut only on to closes or narrow passages, and as they are built of stone and are six or more storeys high it would be a difficult and expensive matter to cut broad thoroughfares through these dense accumulations of inhabited and lofty structures. To make matters worse, it is in this, the oldest part of the town, that the poorest classes now live. As the town extended the prosperous sections of the community built for themselves more commodious houses and thus created what are now known as the New Town and the Southern Districts. This classification has facilitated the establishment of comparisons that are useful and incidentally bear on the question of the high death-rate in the South African concentration camps. Sir Henry Littlejohn, as medical officer of health, points out in a recent report the proportion of the population attacked by measles in the various districts. Taking the last three annual reports, the average cases of measles notified during the years 1898 to 1900 inclusive were equal to 39·8 per 1000 in the New Town; to 47·7 in the Old Town; and to 30·4 in the Southern Districts. The New Town, though better than the Old Town, is composed mainly of tenements, while the Southern Districts possess a large number of villas and self-contained houses. The figures are in accord with what might be expected—namely, that there were more cases in tenement dwellings and among the poorer sections of the community. Nevertheless, the difference is not so very great, and it is in the death-rate rather than in the number of cases that the effects of poverty and inferior sanitation are rendered manifest with startling emphasis. Thus the average annual death-rate was equal for the three years to 1·96 deaths per 100 cases of measles in the New Town, 4·26 in the Old Town, and 0·46 in the New Town. Here, then, we have a repetition on a small scale of the experience of the concentration camps in South Africa—namely, that the number of deaths from measles is not due to the number of the cases but to the want of proper nursing and accommodation for the patients. It would be difficult to find in Great Britain a clearer illustration of the effects of sanitation on the results of disease. The general zymotic death-rate in 1900, excluding diarrhoea, for the whole city was very low and amounted to only 0·96, but the deaths from these diseases were equal to 1·43 per 1000 of the population of the Old Town, to 0·90 per 1000 in the New Town, and to only 0·33 per 1000 in the Southern Districts and to 0·30 in Portobello.

At Edinburgh measles was included in the compulsory notification powers obtained by that city in 1879. After 20 years' experience Sir Henry Littlejohn has come to the conclusion that in the absence of proper means for isolation such notification has been of little service. It would be more useful, he considers, to notify erysipelas and puerperal fever, as these diseases might more readily be dealt with. As matters now stand the notification of measles is mainly of service in keeping the sanitary authorities better acquainted with the health conditions of the various localities and in indicating where precautions should be taken to prevent the spread of the disease in schools. Also, some of the more severe cases have been removed from the poorest houses to the hospital, thus giving the patients a better chance of recovery. But as the majority of cases cannot be removed to isolation hospitals there is no hope of stamping-out an epidemic of measles in the same manner as, for instance, an epidemic of small-pox.

Under these circumstances it is not surprising that the city has been anxious to increase its hospital accommodation for infectious diseases. For many years this question has been before the sanitary authorities, but the energy displayed in this cause was chiefly manifested during the prevalence of epidemics and generally died out when the

danger had passed. Yet so far back as 1497 the citizens of Edinburgh learnt to appreciate the usefulness of isolation. At that time there was a terrible epidemic of "grandgore," or French pox, and it was stamped out by deporting all the sick to the island of Inchkeith. Then, again, in 1513, after the battle of Flodden, there was a disastrous epidemic of bubonic plague. Wooden huts were erected on the Borough Muir for the isolation of the patients brought from Edinburgh. These huts were carefully burnt when the epidemic was over. The plague, however, broke out again in 1529, and then, for the first time, notification was enforced. The means of compulsion contrast forcibly with the small fines imposed in the present day; for anyone who failed to report a case of sickness was burnt on the cheek and banished from the city. Vagrants were closely watched, strangers entering the city were registered, and persons attending to the sick were threatened with pain of death if they associated with other people. Thus the principle that each citizen is responsible for his neighbour's health and life was fully established. Whether death was produced by the use of the assassin's knife or by the spreading of a fatal disease it was equally looked upon as murder; and in 1530 a man was hanged for going to church when his wife was suffering from plague and a woman was executed by drowning because, having the plague, she concealed the fact.

When yet another outbreak of plague occurred, in 1568-69, the authorities went a step farther. They not only isolated the sick but their families were removed to houses especially prepared for that purpose at the Muir and were there kept under observation, while their furniture was either burnt or thoroughly cleaned. This quarantine of "suspects" was maintained for 20 days. During the prevalence of plague in 1585 a system of scavenging was set up for the whole town, and the men who were employed were provided with a special uniform so that they should not soil their own clothes. This precaution has been revived in our day, and disinfectors generally wear overalls which are passed through the stove with the other objects that have to be purified. During the plague of 1645 the first approach to the appointment of a medical officer of health was made when Dr. John Paulit was engaged by the town and paid £80 (Scots) per month to attend to the cases of plague. This seems to have been the last stroke necessary to kill the foe; for from that time henceforth the plague has never reappeared in Edinburgh. It is a pity that the post of medical officer was not maintained after the cessation of this epidemic and only re-established 200 years later. Cases of leprosy were also strictly isolated and a gibbet was kept close to the lepers' house ready to hang those who came beyond the bounds in which they were confined. But in regard to the more ordinary forms of epidemic disease no such energy was shown; indeed, about 100 years ago Edinburgh was reputed to be one of the filthiest towns in the United Kingdom. Many well-known authors have denounced the revolting conditions in which even the more respectable inhabitants of Edinburgh were content to live. Nor was there any great improvement when the New Town was built, for the sanitary condition of the best new houses was most defective. One measure, however, was adopted—namely, the free vaccination of children—and this as far back as the year 1815. Some good was also accomplished by a big fire which destroyed many fever dens on the south side of the High-street, and a street-cleansing department was established by the corporation at about this time. The cesspools, the drains, and the sewers, however, were not touched, and when the cholera appeared in 1832 it spread most disastrously throughout Edinburgh. There were also many epidemics of typhus fever. On these occasions temporary sheds were erected for the patients in the grounds of the Royal Infirmary, but it was difficult to find anyone courageous enough to remove the patients from their houses to these sheds. It often happened that medical men had themselves to do this work and many of them lost their lives through contracting typhus fever from their patients.

It was in 1863 that the town council first appointed a medical officer of health and they selected the surgeon of the police, Dr. (now Sir Henry) Littlejohn, to fill that office. His first work was to make a sanitary survey of the city and to draw up health statistics for each district, thus demonstrating which were the worst and the most dangerous localities. This he supplemented by details as to density of population, air-space in the dwellings, cleanliness, &c. Then he denounced the condition of the drains, the bad sanitation of the better-class houses, the

frequent sale of diseased meat, the evil condition of the cemeteries, and many other obvious defects. This caused a great outcry, and it might have gone badly with Sir Henry Littlejohn if he had not been ably seconded by Dr. William Chambers who, most fortunately, was at that time Lord Provost. He later drew up an improvement scheme which is known as Dr. Chambers's Act, and new streets were opened out in the worst parts of the Old Town. Subsequently another leading sanitary reformer and medical man, Sir J. A. Russell, became Lord Provost, and in 1893 a second improvement scheme was passed. Meat-markets, dairies, bakeries, &c., are now inspected, and in all other respects Edinburgh is on a level with the best-administered towns of the kingdom. The result has been the saving of from 3000 to 4000 lives per annum. But the provision for the isolation of infectious cases was neglected till 1885, when the managers of the Royal Infirmary notified the town council that they could no longer provide for fever patients out of the funds of their charity. At this time the infirmary was about to remove to new hospital buildings at Lauriston, so the town council took over the old infirmary and converted it into a municipal fever hospital. Needless to say that this ancient structure is in no wise suited for the purpose and therefore considerable alterations had to be made. The fever hospital soon became quite popular and even wealthy citizens were glad to avail themselves of it rather than to keep fever cases in their private houses. An annual outlay of £4000 for the fever hospital had been allotted in 1885, but the expense had increased to four times that amount in 1893. It was then proposed to enlarge the fever hospital at the cost of £20,000; but the town council thought that they were spending quite enough money already and did not meet the proposal with favour. The very next year, however, the needed stimulant was provided in the shape of a small-pox epidemic. Huts had to be built for the patients in Queen's Park. They were an eyesore and a danger to the neighbourhood and a clamour arose. This served to educate and to ripen public opinion, so that now a magnificent fever hospital is in course of construction on a scale which seems quite regardless of expense.

Strange to say, however, that, in spite of the recent and wide extension of the city boundaries, the new isolation hospital is situated outside Edinburgh. It is stated that the House of Lords would not allow the site to be included within the city because the Lords wanted the county to make what profit it could from the outlay incurred by the town. The site consists of a farm of 130 acres on Colinton Mains. Forty acres were set aside for the hospital, which is to accommodate 600 patients; so there will be 15 patients to the acre, while at the old fever hospital there were 100 patients to the acre. All that appertains to the management of the hospital is situated in the centre; and on both sides, east and west, there are double rows of pavilion wards. All those on the east will be devoted to scarlet fever. To the north-west there are three pavilions, one each for diphtheria, typhoid fever, and erysipelas respectively; and on the south-west there are four pavilions for measles, chicken-pox, whooping-cough, and typhus fever. The reception and observation wards are near the principal entrance. Then there are an ambulance station, lecture-rooms, a pathological laboratory, a museum, and mortuary buildings; while in another part of the grounds there are the laundry, the boiler-house, the disinfecting station, the electrical power, and incinerator buildings. Ample open space remains for recreation-grounds. The amount of accommodation varies according to the diseases; thus there will be 10 beds for patients suffering from typhus fever and 329 for scarlet-fever patients. The cubic air-space for the scarlet-fever patients will amount to 2000 feet each, but for whooping-cough and chicken-pox the cubic space will be 1690 cubic feet per bed, the patients in these cases being nearly always little children. In the diphtheria wards 2545 cubic feet and in the typhoid fever wards 2514 cubic feet have been allowed, while in the case of typhus fever this has been increased to 3042 cubic feet for each patient. The pavilions run north to south with the ward offices to the north, so that the shadow of their greater bulk does not fall upon the wards, and they thus receive the maximum of sunshine. Each ward has two small separate rooms, one holding one bed and the other two beds, and of course there is a bath-room, and a duty-room, &c.

The ground is from 370 to 400 feet above the sea level and it dominates a gentle southern slope. It is well away from all buildings and the sun's light falls full on

the hospital without interruption. The spaces between the various pavilions will never be less than 80 feet, and as none of the blocks are more than two storeys high there cannot be any overshadowing. The stones employed are of a light-red colour and this gives a warmer appearance than the grey stone generally used at Edinburgh. In the wards great efforts have been made to introduce the most recent improvements. The floors are of solid teak planks, closely jointed, embedded in prepared pitch, and impregnated with paraffin wax. The walls are covered with Keene's or Parian cement and the angles are rounded off. Steam coils will be employed both for ventilating purposes and for heating, and, of course, by the windows that face each other a through draught can be established. The water-closets, the slop-sinks, the ventilated bed-pan cupboard, and the shoot for dirty linen, instead of being situated, as is generally the case, at the end of the ward, are built out from the centre of the ward; therefore it will not be necessary to pass before them in going in and out to see the patients. Electric light will be used throughout the buildings, and gas will be employed for ordinary cooking purposes. For drainage the separate system has been adopted. The roof and subsoil water will be discharged into the Braid Burn by a 20-inch pipe with a fall of 1 in 150. For the sewage the pipes are of heavy cast-iron, coated inside and outside with Smith's patent solution, laid on a gradient of 1 in 73, and they will measure nine inches in diameter. The lateral branches will be smaller and have a gradient of at least 1 in 40. Each pavilion has a separate connexion and ventilating trap, and there will be another ventilating shaft at the summit of each section of branch drains. All baths, sinks, &c., have disconnecting traps. The small-pox pavilion has a separate drain that goes straight to the outfall and does not mix with the rest of the system. Numerous automatic flush-tanks will be employed and a powerful disinfectant will be mixed with the water which they contain.

All the pavilions are connected with each other and with the administrative buildings by covered ways. Below these covered ways there is an underground passage where all pipes are laid and they are thus easily accessible. The nurses' home is a very large building four storeys high, with 130 separate bedrooms, some spare rooms, two sick-rooms, three day-rooms, a library, a recreation room large enough for concerts and other entertainments, and large outdoor recreation grounds. Then there is a separate block comprising the stores, the kitchen, the offices, and the dining-rooms. These latter are so divided as to separate the scarlet-fever nurses from the other nurses and they have different entrances. All the principal buildings are now completed as far as the masonry is concerned, but there is still an immense amount to be done within. The fittings, the flooring, the furnishing, and the gas, the water, the electric and other services will take a long time to put in. There is, indeed, much dispute as to when the hospital will be in a fit condition to receive patients. On visiting the hospital I found that some of the pavilions were much more advanced than the others, and the nurses' home is not so far from completion. Nevertheless, the works are not sufficiently advanced to venture upon any criticisms with regard, for instance, to the system of warming and ventilation. One thing, however, I did observe—that the principle enforced on the continent in schools, hospitals, &c., that heating should be provided near to the coldest surfaces, has been adopted here. Of course, the coldest surface is that of the window-panes. Therefore the hot-water coils are placed within the hollowed-out window sills. The heated air comes out of the top travelling up against the cold window-panes. This will prevent the down draughts that are created by cold surfaces, such as windows or marble walls, and which render it so difficult to secure the same temperature in every part of a ward, hall, theatre, or other large building. What the heating of such a hospital means may be gathered from the fact that there will be 3600 feet of hot-water pipes from the five boilers. These boilers measure 30 feet by seven feet each. These 3600 feet of pipes being all outside the wards in the underground passages, the figure does not include the pipes within the buildings. It is said that the hospital will cost nearly a quarter of a million of money; and this will certainly raise the question whether the same efficiency might not have been secured with a smaller outlay. In any case, when it is remembered that in 1893 the town council hesitated to spend £20,000 to enlarge the old fever hospital, the fact that they have now

incurred such an enormous liability shows that they have made great progress in the recognition of the principle that in matters relating to public health what appears to be economy is but the worst form of extravagance.

(To be continued.)

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

### "Pearl Ash" Poisoning.

THE city coroner on Oct. 17th concluded the inquest on the body of a man named Brocklehurst, of Hayfield, who was said to have died from the effects of taking "pearl ash" instead of "potash." The deceased received a prescription from another man named Broadhurst who was, as many of the working classes are, somewhat of an amateur doctor, the terms of which were as follows:—"For sciatica or rheumatism: Take two table-spoonfuls of pearl ash to one pint of water. Boil and add the pearl ash, then let cool and bottle. Take one wineglassful night and morning." The druggist's assistant said that he did not remember serving pearl ash. "When asked for pearl ash he would dispense carbonate of potash," as the former had a strong caustic action. The son of the deceased, a boy, aged 12 years, said that his mother sent him for a pennyworth of pearl ash about two months ago, and he was served with "some dark-coloured substance like a stone." It is not clear how much of the solution was taken. After some time the man was removed to the Manchester Infirmary, where he was only able to take liquid food, and he gradually sank, dying on Oct. 9th. The coroner told the jury that "if a person totally ignorant of medicine took upon himself to administer dangerous remedies he was amenable to the law," and if they thought that the person who was alleged to have given the prescription had in giving it been guilty of "gross ignorance and scandalous inattention" they must send him for trial on the charge of manslaughter. The jury took a merciful view of the matter and were of opinion that the man who gave the prescription showed gross ignorance but not malicious intention, as he had acted in a kindly spirit. Their verdict was "that Brocklehurst had died from starvation caused by his taking an irritant poison prescribed by Broadhurst, who had been ignorant of its action." The coroner said that he thought the case ought to be investigated by the police and magistrates of Derbyshire. The inspector said that he would report it to his superior. This case is a good illustration of the ignorance as to the most ordinary things prevalent among our imperfectly educated people, and it is to be feared that little is done to disperse it by the present-day elementary teaching.

### The Leech Memorial Fund.

It is proposed in a short time to close the fund now being raised to found a memorial to the late Professor D. J. Leech. It now amounts to £1230, and the committee will be glad for any further contributions to be forwarded to the honorary secretary, Dr. E. M. Brockbank, 3, St. Peter's-square, Manchester.

### Manchester Schools for the Deaf and Dumb.

The committee of the Royal Schools for the Deaf and Dumb, Old Trafford, are appealing for increased support. It is now recognised that deaf children must receive a higher education than was formerly required "to enable them to compete in the labour market with persons not so afflicted," and thus the cost of their education has been increased. In 1881 there were 157 pupils and the cost per head was £20 11s. 9d. In 1891 there were 190 pupils at a cost of £27 2s. 7d. per head, and now, in 1901, there are 200 pupils and the cost per head has gone up to £34 19s. 5d. The school premises have had to be enlarged, and while 20 years ago there were about half-a-dozen teachers—some of whom were deaf—at small salaries, it seems that the educational needs require now 24 teachers, who, to comply with the demands of the Education Department and to teach efficiently on the oral system, must have had special training. The controversy as to the Blind Asylum still goes on, and the committee of the Deaf and Dumb Schools are anxious to let it be known that "the two institutions are in every respect distinct and separate, and that the two governing bodies have nothing in common beyond the spirit of philanthropy which guides their actions."

There is a debt to the bankers of £7754 on 'building extension account, to which must be added about £1123 for completing work now in hand. A small sanatorium for the isolation of sick children is much needed, but the committee are reluctant to build while they are burdened with their present debt. Assuming that the institution is managed financially with judgment and economy, a good case is made out for asking "the community of which Manchester is the centre" for increased help. The idea that these schools are affiliated with the Blind Asylum has no doubt arisen from the fact that "the two charities adjoin each other and are under one continuous roof."

### Scarlet Fever.

Scarlet fever has for some time been rather prevalent in Manchester, and in the Moss Side district the cases are very numerous. Dr. S. H. Owen, the medical officer of health, stated at the meeting of the district council that "he had reason to believe that scarlet fever patients had not been reported, either from great carelessness or ignorance of the infectious character of the disease." There is no doubt that in many mild cases no medical man is sent for and no notification is made.

Oct. 23rd.

## WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

### Intemperance and Insanitary Dwellings.

THE chairman of the Glamorganshire Quarter Sessions which were held at Swansea on Oct. 15th dwelt at some length upon the great increase in the number of indictable offences in the county. He said that drunkenness was on the increase to such an extent that unless something very drastic took place they would be having such a state of things that they would never be able to hold up their heads among the inhabitants of other counties not only of Wales but of England. No particular remedy was suggested, though the provision of rational forms of amusement was spoken of with favour. To those who live in the densely populated districts of South Wales there can be no doubt that the insanitary conditions of many of the working-class dwellings account to a large extent for the drinking propensities of the inhabitants. The responsibility for the existence of these conditions rests primarily with the sanitary authorities, but the Local Government Board, though aware, through the reports of the medical officers of health, of the state of most of the districts, has dealt very tenderly with the shortcomings of the authorities. One instance may be given. In the year 1895 Dr. R. Deane Sweeting reported to the Local Government Board upon the insanitary condition of the Amman valley district in Carmarthenshire, and made certain suggestions as to the improvements necessary, but when Dr. S. W. Wheaton visited the district in the spring of this year he found that little or nothing had been done in the direction of carrying out Dr. Sweeting's suggestions, and that there was still no proper system of drainage or of scavenging, that no means were taken to prevent the spread of infectious disease, and that there was no systematic inspection of the district for the discovery of nuisances.

### The Prevention of Consumption.

Upon the advice of the medical officer of health (Mr. E. Davies) the Health Committee of the Swansea Corporation has decided to invite the voluntary notification of phthisis from the medical practitioners in the town and to pay a fee of 2s. 6d. for each notification certificate received.—At the first meeting of the South Wales and Monmouthshire Branch of the National Association for the Prevention of Tuberculosis it was decided that the principle of subdivision should be adopted and that sub-branches should be formed. Circulars are to be sent by the committee to county and district councils emphasising the necessity for establishing sanatoria. Dr. C. T. Vachell expressed the opinion that an institution supported solely by voluntary contributions would not be likely to succeed.—The Bath Board of Guardians at a recent meeting discussed the treatment of consumptive pauper patients, and eventually decided to wait and see what the Bristol Board of Guardians would do in the matter of treatment of these cases. At the meeting of the guardians held on Oct. 16th the medical officer urged the guardians to act promptly and to provide proper accommodation for the treatment of phthisical cases.

The Bristol Guardians had suggested that the Bath Board of Guardians and themselves might jointly provide an institution for the treatment of these patients. Eventually it was decided to appoint a sub-committee to confer with the Bristol Guardians.

#### *Insanitary Dwellings in Cardiff.*

The two most prominent public health questions at the present time are the housing of the working-classes and the prevention of tuberculosis, and they are questions which admittedly have a very close connexion. Nearly all the speakers at the recent Cardiff conference on tuberculosis emphasised the importance of providing dwelling-houses with a sufficiency of air-space and sunlight and with absolute freedom from damp surroundings. It is a little disheartening, therefore, to find that when steps are taken by the Cardiff Corporation to improve the dwellings of the poor, not only, as might be expected, does opposition come from the property owners, but that these are supported in their opposition by members of the medical profession. In January last the medical officer of health (Dr. E. Walford) presented a report to the corporation upon the courts and unhealthy dwellings in the town, and although there are practically no slums in the borough he was able to refer specifically to 134 houses in various parts which he considered should be dealt with, not as insanitary areas under Part I. of the Housing of the Working Classes Act, 1890, but separately under Part II. of the Act. Proceedings were taken on Oct. 17th before the deputy stipendiary magistrate with respect to six houses which, according to Dr. Walford's report, were provided, in common with five adjacent houses, with only a single water-tap and with only two water-closets, each defective in construction and without any water-supply for flushing, and in which most of the rooms were dark and damp—those on the ground floor being paved with stone and being without back doors or back windows and without floor ventilation. The houses generally were described as being old, in a bad state of repair, and much shut in by high buildings surrounding them on all sides and obstructing light and ventilation. Dr. Walford asked that these houses should no longer be occupied. Three local medical practitioners stated that in their opinion they were not unfit for human habitation and that their occupation would not be dangerous to health. The deputy stipendiary, after asking Dr. Walford if he was aware that in Leeds almost all the cottage houses are built upon the "back-to-back" principle, remarked that Leeds was not an unhealthy town and he subsequently refused to make an order to close the houses in question. The danger which lies in a little knowledge is thus once more illustrated, for if the magistrate will pursue his inquiries a little further he will find that not only has Leeds a high death-rate from all causes, a high zymotic death-rate, and a high infantile mortality-rate, but he will also learn that it has been conclusively shown in other parts of Yorkshire by comparisons extending over a series of years that the death-rate among the occupants of "back-to-back" houses is considerably higher than among those who live in "through" houses, although the conditions of the two classes of dwellings as regards age, construction, class of occupant, sanitary conveniences, &c., are precisely similar. If the deputy stipendiary magistrate desires to raise the death-rate in Cardiff which last year was 16.5 per 1000, to that of Leeds which was 20.2 per 1000, he will continue to refuse the applications of the medical officer of health, but the responsibility must be his and not Dr. Walford's.

#### *Brentry Inebriates' Home.*

The Swansea Corporation has decided to contribute the sum of £1000 to the board of management of the Brentry Home, thereby securing a share in the management and seven beds for Swansea patients during the next 25 years. The chief constable has stated that there are now in Swansea 13 persons eligible for admission to the home. The corporation of Bath has entered into an agreement to secure three beds in the home during the next six years upon payment of £27 7s. 6d. annually.

#### *Employment of District Nurses by Sanitary Authorities.*

There is no provision for isolating cases of infectious disease in Ebbw Vale, a colliery district in Monmouthshire with a population of 21,000 persons. Owing to severe outbreaks of diphtheria and typhoid fever the district council recently engaged two district nurses, but the Local Government Board now state that there is no legal authority empowering the council to pay nurses for attending patients at their own homes.

#### *Hereford County Asylum.*

Extensive additions to the Hereford Asylum were formally opened on Oct. 15th. They consist of new quarters for the assistant medical officer and for the matron, a one-storey block to accommodate 50 male patients, and a two-storey block for 100 female patients. The dining-hall and the chapel have been enlarged and the laundry accommodation has been increased. The new buildings like the old are ventilated and warmed on the "Plenum" system. The cost of the extensions is about £40,000. The asylum was erected in the year 1871 on a site of 10 acres, with 100 acres of garden and farm lands, at a cost of £67,000, with accommodation for 187 men and 213 women. At the present time, therefore, 550 patients can be accommodated. The institution serves the city of Hereford and the county of Herefordshire with a total population of 114,000 persons.

#### *Plymouth Royal Eye Infirmary.*

This new building, although occupied by patients for the past 12 months, has not been formally opened, the ceremony being postponed owing to the death of Queen Victoria. It has now been arranged for the formal opening to be performed by the Countess of Morley on Oct. 30th. The cost of the institution, including furnishing, has been £12,000, and the committee make an urgent appeal to the public for more subscriptions.

Oct. 2nd.

### SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Death of Dr. Foulis of Edinburgh.*

By the death of Dr. James Foulis on Oct. 14th Edinburgh has lost one of its leading and most successful practitioners. He was a native of New South Wales, his father having been a medical man in Sydney. He was born in 1846 and he graduated at the University of Edinburgh in 1874. He was a thesis gold medalist of the University. He succeeded Dr. George Keith in practice and rapidly became a busy family practitioner. He took a keen interest in some biological questions and did important work on diseases of the ovary. Of late years he took a very active interest in the question of the transmission of infectious diseases by means of milk, and his voice and pen were used to enforce his views upon the profession and the public. He was a man of distinct intellectual capacity; he had the gift of ready and effective speech; he formed strong opinions which he did not fear to express, and he had a faculty of imitation which sometimes gave a humorous effect to some of his communications. He was altogether a unique personality in the profession in Edinburgh, and although he was neither a teacher nor a hospital physician no man in Edinburgh was looked upon with greater interest by his brethren, and his patients were devoted to him. He died of cardiac disease aggravated by an attack of influenza last spring.

#### *Direct Representation on the General Medical Council.*

Dr. W. Bruce of Dingwall intimated some time ago that he would seek re-election as the Direct Representative for Scotland on the General Medical Council. It has just been announced that he is to be opposed by Dr. Norman Walker of Edinburgh. It will be remembered that when Dr. Bruce was elected he won the seat over Dr. Sinclair of Dundee. The idea prevalent at that time was that no teacher need stand, as the general practitioners had decided to have one of their own body to represent them. It was thought that all persons connected with universities or corporations had the interests of those bodies more at heart than the interests of the general practitioners, and that the wrongs, either real or imaginary, of practitioners would have a better chance of being rectified by the voice of a general practitioner than of anyone else. I have no means of knowing whether the profession in Scotland is satisfied with its present representative, but a contest has at least the advantage of stirring up the stagnant pool of professional apathy. So far as Scotland is concerned it does not seem that there are any burning questions agitating the mind of the general practitioner at present, and he, of course, holds the voting power.

#### *General Council of the University of Edinburgh.*

The half-yearly meeting of this body is to be held on Friday, Oct. 25th. Motions dealing with the reorganisation of the medical curriculum and the time spent by professors in teaching their practical classes have been given notice of

and a report on the Carnegie Trust will be submitted. The meeting promises to be a lively one.

#### *Glasgow University.*

The winter session of this University was opened on Oct. 17th. Following the custom of recent years there was no formal introductory address, but several of the professors opened their respective classes with lectures on special subjects. Not unnaturally the Carnegie foundation and its probable influence upon education in Scotland came in for much acknowledgment and comment. It is, perhaps, noteworthy that one of the more recently appointed professors proclaimed his belief that the most urgent want of the Scottish universities was freedom from the compulsory ordinances enacted by the recently defunct Universities Commission.—The movement in favour of the better endowment of the University has been officially brought before the corporation, and it is reported that the Finance Committee has agreed to recommend the town council to make a grant of £5000 to the University fund. It is understood that if this is done the money will be "earmarked" to aid in the foundation of a lectureship in political or social philosophy.—The University Court will shortly appoint additional examiners in chemistry, zoology, materia medica and therapeutics, medicine and clinical medicine, and surgery and clinical surgery. The appointment in each case will be for three years from Jan. 1st, 1902, and applications must be lodged on or before Dec. 3rd next.

#### *Glasgow Extra-mural Schools.*

The winter session at Anderson's College Medical School was opened on Oct. 17th with an address by Dr. George A. Gibson of Edinburgh. In his introductory remarks Dr. Gibson spoke in commendation of the maintenance of freedom in teaching, which had led to the great development of medical education both in Edinburgh and in Glasgow. He recalled the fact that the medical school of Anderson's College had just completed the first 100 years of its existence and quoted the names of many famous men who had been students in the college. Afterwards he spoke on the importance of scientific study in medicine.—At St. Mungo's College the introductory address was delivered by Professor Malcolm Laurie who dealt with the position of the natural sciences in the medical curriculum. In so doing he criticised adversely the recent action of the English Colleges, which he condemned as reactionary and hurtful to the interests of medical education. The scientific subjects, he considered, could not be efficiently taught in schools, nor could the student do justice to them while occupied in studying for the preliminary examination. He insisted on the importance of an adequate scientific training in order that medicine might retain its position as a learned profession.—The increased interest in post-graduation study is manifested by the facilities which are now being offered to practitioners at several of the Glasgow medical schools. At the Eye Infirmary the surgeons are to give a joint course on refraction and the use of the ophthalmoscope. A similar series of demonstrations is announced at the Ophthalmic Institution, and at the Royal Infirmary classes in practical pathology and bacteriology are to be conducted. In all these cases the courses are free to qualified practitioners.

#### *Glasgow South-west Medical Society.*

The annual dinner of this society was held on Oct. 18th, under the presidency of Dr. John Stewart. There was a large attendance of members and guests, including Professor McCall Anderson, Dr. Bruce of Dingwall, Professor Stockman, and Professor Glaister. The toasts included "The General Medical Council," in proposing which Dr. Charles E. Robertson criticised adversely the refusal of the Council in June last to receive a deputation representing Scottish practitioners. In reply Dr. Bruce expressed the opinion that the Council is too large, and advocated a change in its constitution so as to make one-half of its members Direct Representatives of the profession.

#### *St. Andrews University.*

Dr. James Musgrave, at a meeting of the Senate on Oct. 16th, was formally introduced to the chair of anatomy recently founded by the late Marquis of Bute. The installation of Lord Balfour of Burleigh as Chancellor of the University is to take place on Oct. 24th. At the ceremony the degree of LL.D. is to be conferred on Lord Balfour, Sir Henry Craik, and Sir George Reid. Mr. Andrew Carnegie, LL.D., has in response to the students' invitation, intimated his willingness to stand as a candidate for the Lord Rectorship of the University.

Oct. 22nd.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Health of Belfast.*

At a meeting of the Public Health Committee of Belfast held on Oct. 17th, it was stated that the number of cases of typhoid fever notified during the week showed a considerable diminution. Apparently the epidemic has gradually worn itself out. In reference to the attempts to find out the causes of the occurrence of this fever in Belfast, in addition to inquiries made by the health department it has been decided to have bacteriological examinations of the soil made in certain cases, in order to prove or to disprove the allegations frequently put forward as to the filled-in ground on which some houses are built or the saturation of the soil by sewage from improperly constructed drains being responsible.

#### *Armagh Sewerage Scheme.*

The engineer of the new Armagh Sewerage Scheme has signed an undertaking prepared by the solicitor of the council agreeing to pay the council all money that they may pay for damages, costs, and expenses, in settlement of any actions, or of sums that they may be compelled to pay by order of the judges owing to flooding caused to certain houses, inasmuch as the engineer had "caused to be substituted an 18-inch pipe for a 24-inch pipe from the courthouse to the railway culvert contrary to the plans thereof and without authority from the urban council or Local Government Board, and failed to have constructed storm overflows as shown in the plans."

#### *North of Ireland Branch of the British Medical Association.*

The autumn meeting was held in the Museum, Belfast, on Oct. 17th. After the reading of the minutes and the Council's report Professor J. W. Byers, the outgoing president, delivered a short address thanking the members for the courtesy and kindness shown by them to him during his year of office and introducing his successor, Dr. J. S. Darling of Lurgan. On the new president taking the chair, on the motion of Mr. G. L. St. George (Lisburn), seconded by Dr. J. C. Martin (Portrush), a very hearty vote of thanks was given to Professor Byers for his management of the affairs of the branch during the past year. The new president then delivered his inaugural address on the Danger of Delay in Operation in Surgical Affections, for which he was cordially thanked. Mr. T. H. Brownrigg (Moira) then read a paper on Notes of a Case of Typhoid Fever with Hyperpyrexia and of a case of Non-febrile Typhoid Fever. In the discussion which followed Dr. Martin, Professor J. A. Lindsay, Dr. J. Robb, Professor Byers, Dr. W. Calwell, and the President took part. In the absence through illness of Dr. J. C. Rankin the secretary read a paper by him on Four Cases of Enlarged Spleen. A discussion followed.

#### *Remuneration of Locum-tenents of Dispensary Medical Officers by Boards of Guardians.*

The question of the remuneration of substitutes for dispensary medical officers has again arisen. It would appear that the Ballymoney Guardians had fixed the scale of remuneration for locum tenents at two guineas per week. Dr. J. Wallace refused to accept this sum, stating that he could not procure a substitute at such a figure. Subsequently Dr. Wallace being temporarily unable to work owing to sickness, notified the relieving officer, and he appointed Dr. M. J. O'Kane of Ballymoney as substitute, who claims six guineas for the two weeks' work. The guardians have requested the Local Government Board to hold an inquiry into the whole matter.

#### *Deaths of Medical Men.*

On Oct. 16th a well-known and respected Ulster practitioner, Dr. R. B. McClelland, died from apoplexy at his residence, Banbridge, co. Down. Dr. McClelland, who was the son of a medical man, graduated M.D. of Glasgow in 1849. He practised all his life at Banbridge, where he was much respected. He was a J.P. of co. Down. His funeral, which was largely attended, took place on Oct. 19th. On Oct. 18th Dr. Hugh Fisher, one of the younger Belfast medical men, died from heart failure after a severe attack of typhoid fever. He was only 31 years of age. He studied at Queen's College and graduated in 1893 in the Royal University of Ireland. Dr. Fisher was greatly respected by his fellow practitioners and by his patients. He married Dr. Elizabeth G. Bell, and she and an only son, two years of age, survive to deplore his early decease.

*The Medical Profession and University Education in Ireland.*

The President of Queen's College, Galway, has written a letter to the press, in which he says that Dr. W. A. McKeown asserts<sup>1</sup> that Galway College has had only 16 medical graduates in 10 years. The President states that the number of medical graduates in the Royal University alone in 10 years (1891-1900) was 42. In addition to these five other students obtained further medical qualifications in the same university. Dr. McKeown, in reply, says that the number 16 represents the total number of students educated at Galway College alone for the final examination in medicine in the Royal University. The mistake as between 16 and 42 has arisen, Dr. McKeown thinks, because the President must have counted students who have passed their early medical studies in Galway College, but who have gone to other colleges for their final studies, as if they remained all the time at Galway. It is the difficulty in the study of the clinical side of medicine, surgery, &c., which causes students of the medical faculty to leave Galway in the later years of their curriculum.

Oct. 23rd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

*Hospital Medical Officers and the New Law concerning Accidents.*

I HAVE on previous occasions referred to the new law concerning accidents to workmen sustained in the course of their occupation. This law provides that employers shall be responsible for all medical care and for drugs supplied to any workman who has met with an injury in the course of his work. Both ordinary general practitioners and hospital physicians and surgeons protested against this law. Employers naturally pay less than if the workman were treated at home, and also with a view to his getting the best treatment they send him off to the nearest hospital. In this manner the general practitioner is deprived of many fees which would have fallen to his lot and hospital physicians and surgeons lose also, for they have to treat gratuitously many people whose cases would have been a source of profit, for the bill would have been discharged by the employer. A medical man at Clermont-Ferrand, by name Dr. Bousquet, has taken the initiative and has summoned his colleagues to a meeting to be held on the eve of the Congress of Surgery for the purpose of considering what measures can be taken to lay before the congress the just demands of medical men.

*Methods for the Suppression of Small-pox Inoculation.*

At the meeting of the Academy of Medicine held on Oct. 8th M. Hervieux read a paper upon Small-pox Inoculation and Native Inoculators. Despite the incessant efforts of military surgeons and colonial medical officers small-pox yearly claims a certain number of victims in the colonies, being brought about and spread by the practice of inoculation. In M. Hervieux's opinion the best way of combating this evil is to try to raise up a race of native vaccinators and so to convert the natives to a belief in vaccination. This opinion, said M. Hervieux, is held very strongly by Dr. Le Gros, colonial medical officer of Kabylia. Not only would this plan provide for a great increase in the number of orthodox vaccinators, who are far too few in the countries specially concerned, but it would also get over religious scruples, for the vaccinator would be of a like faith with the vaccinated. M. Hervieux referred to other plans which have been put forward, but the one which I have mentioned seemed to him to be the most efficacious.

*Suicide in France.*

The number of suicides for the year 1898 showed a slight increase—namely 9438, as against 9356 in 1897, or an increase of 82. The figures for a period of five years before and including 1898 were as follows:—1894, 9703; 1895, 9263; 1896, 9260; 1897, 9356; and 1898, 9438. It seems fair to conclude from these figures that the diminution which began in 1895 was the commencement of a real diminution and not merely of a temporary one. The department of the Seine supplied one-sixth of the total number of suicides in 1898—namely 1566, or 64 less than in 1897. Of the persons committing suicide 85 were under 16 years of age, 477 were between 16 and 21 years of age, 1436

were between 21 and 30 years of age, 1285 were between 30 and 40 years of age, 1669 were between 40 and 50 years of age, 1852 were between 50 and 60 years of age, 2356 were more than 60 years of age and the ages of 278 were unknown. The civil condition of those committing suicide was ascertained only in 8899 cases. The unmarried numbered 3008, the married with children 2502, the married without children 1422, widows with children 1113, and widows without children 834. As to employment, 2436 cases occurred among agriculturists, 1668 among those employed in various industries, 1262 among business men and merchants, 1380 among those carrying on a profession, 1511 among domestic servants, and 1181 among those not in employment or whose employment could not be ascertained. As to motive, 1537 suicides were set down to poverty and reverses of fortune, 943 to family troubles, 624 to love or jealousy, 1226 to drink, 2705 to various troubles (of which physical pain accounted for 1785), 1347 to cerebral disease, and in 1056 cases the cause remained unknown.

*High Frequency Currents in the Treatment of Anal and Vulvar Pruritus.*

At the meeting of the Therapeutical Society held on Oct. 9th M. Leredde reminded the society that physical agents, like other methods of treatment, had their limitations from a therapeutical point of view. M. Leredde had especially remarked this in using high frequency currents for pruritus. If, however, this method were used for the treatment of pruritus limited to the anus and vulva excellent results might be obtained. He cited the cases of four patients suffering from anal or vulvar pruritus and in whom the disease had lasted from three to 12 years and had resisted all ordinary methods of treatment. One patient had suffered also from general pruritus which had yielded to dietetic treatment but the anal pruritus had persisted. After from six to 13 sittings, which took place two or three times a week and the duration of which eventually lasted for 15 minutes, all the patients were completely cured.

*The French Congress of Surgery.*

On Oct. 21st the Fourteenth Congress of the French Surgical Association was held in the large theatre of the Academy of Medicine. M. Lucas-Championnière was in the chair and was supported by Professor Jacques Reverdin of Geneva as vice-president, and by Dr. Brouardel (dean of the Faculty of Medicine), Dr. Bouchard, Dr. Guyon, Dr. Dieu (chief of the Army Medical Department), and Dr. Auffret (chief of the Naval Medical Service). In his opening address the President discoursed upon recent improvements in surgery and warmly eulogised the practice of antiseptics in which he firmly believed, despite the statements of the modern champions of asepsis, so that he frankly owned that he would like to see a return to the original doctrine of Lister. Dr. Guinard, the joint general secretary, who spoke in place of Dr. Picqué, gave a welcome to the foreign guests, of whom there were many, and the proceedings commenced by a discussion upon the surgery of the spleen. In the evening the President entertained some 200 members of the Congress at dinner.

Oct. 22nd.

ROME.

(FROM OUR OWN CORRESPONDENT.)

*The Granting of Degrees to Foreign Graduates by the Italian Universities.*

FOREIGN practitioners resident in Italy who are rendered uneasy by the repeated attempts lately made to restrict the privileges accorded to them by the present laws must all have felt a sense of their helplessness in face of the difficulty in which they would have found themselves had these attempts proved successful. Perhaps the British medical men have less to fear from this source than have those of any other nationality, seeing that the danger to them has been, in part at least, met by the application of Part II. of the Medical Act of Great Britain to Italy and the consequent removal of the bar which previously existed to reciprocity of medical practice between the respective countries. But in the case of American, German, Austrian, Swiss, and other foreign medical men a similar expedient is not available since none of these countries are prepared to act towards Italy in this matter with the liberality shown by Great Britain. It is natural therefore that these men, even more than their British colleagues, should look wistfully for some means of

<sup>1</sup> THE LANCET, Oct. 12th, 1901, p. 1012.

escape from the dilemma in which they would certainly be placed in case of any legislative changes of the kind recently contemplated. Such a means does in fact exist, although as yet it has not been taken advantage of to any extent. I refer, of course, to the obtaining of an Italian degree in medicine, which places its holder in a position of security from which no possible changes of the law can dislodge him. In almost every other country it is now impossible, without a prolonged course of study and the passing of many examinations, for a foreign graduate to obtain the diploma in medicine of any university of repute. But in Italy the case is quite different, for in virtue of old-time regulations made for circumstances now entirely changed the law not only permits, but obliges, the various universities to admit to the examination of "laurea"—which corresponds to the final examination for the M.D. degree of certain British universities—any medical graduate of a foreign university whose degree may be considered by the Superior Council of Education as equal in value to that of the Italian university whose "laurea" he is desirous of obtaining. Such foreign graduate is thus absolved from the passing of entrance and of all the other professional examinations, and all that is further required of him is the payment of the fees for the complete curriculum, amounting for the six years of medical study to about 900 lire (£36). For this modest sum, and by passing an examination by no means difficult to one conversant with the language, the "laurea" of any of the Italian universities may be obtained by an approved candidate. A short account of how this is accomplished at, for example, the University of Rome may prove of interest. The description, with slight modifications, applies to the method followed at all the medical schools of Italy in the granting of degrees to foreign graduates. Having sent his application, accompanied by his foreign diploma, to the rector of the university, and these having been laid before the Superior Council and approved of,<sup>1</sup> the candidate is informed that he may present himself for the examination of the "laurea" on payment of the fees already referred to. The latter condition having been duly complied with, and the candidate having put in a written request stating his desire to appear, a date is fixed, corresponding usually to the dates arranged for the "laurea" examinations generally, which it is customary to hold twice a year—namely, in July and in November. A fortnight before the examination he must lodge with the secretary of the university a written thesis of his own composition<sup>2</sup> on any subject he may choose from the whole range of medical study. At the same time he gives the title of two other theses which he is prepared to defend orally. One of the latter should bear upon surgery, but with this limitation the choice of subject in these also is equally unrestricted. The examination itself is conducted orally in Italian by a specially nominated Commission consisting of a president, five university professors, and five "liberi docente," in all not less than 11 members. To one of these, termed the "Relatore," selected for his special knowledge of the subject dealt with in the written thesis, the perusal of the latter has previously been entrusted, and it is his duty before the candidate is introduced to explain to his colleagues its scope and to state the opinion he may have formed of its merits. When the candidate appears before the Commission the Relatore and any other members who may so desire bring forward objections to the facts or theories contained in the thesis in such a manner as to give him an opportunity of defending them or of explaining them more fully. They may also put questions serving to elicit the candidate's knowledge on matters naturally arising out of the subject in hand. For example, if the thesis deals with a morbid condition of some particular organ he may be called upon to give some account of the development, the anatomical structure, or the physiology of the organ. A wide field is thus opened up for discussion, however limited the question may be to which the candidate has confined himself in his dissertation. The oral theses are next dealt with in a similar manner though not at such length, the

examination occupying altogether about one hour. The candidate is then asked to retire until the Commission has considered whether he should be accepted or rejected. Their decision is arrived at by voting, each member disposing of 10 votes, any or all of which he gives to the candidate according to the manner in which in his opinion the latter has acquitted himself. With 11 members on the Commission the maximum number obtainable is thus 110, but 66 suffice for a pass. The counting of the votes having been completed, the candidate is recalled, the result is announced to him, and if he has secured the requisite number of marks the degree is conferred upon him forthwith by the President. Very few British practitioners have so far availed themselves of the facilities thus offered to foreign graduates of obtaining an Italian diploma, some being deterred by their unfamiliarity with the language, others by a prevalent impression that they would not receive fair play from the examiners who are supposed to be very jealous of admitting foreigners to their degrees. This latter idea is not borne out by the experience of one of the English medical men practising in Rome who took the "laurea" of that University a few months ago. On the contrary he was treated with the utmost courtesy and not one unfair question was put to him from first to last. His examination, though long and somewhat trying on account of his imperfect acquaintance with Italian, was, he says, absolutely straightforward, and the result proved that if any partiality was shown it was in his favour since he obtained the degree with the full complement of 110 votes. While thus loyally carrying out the law as it stands at present, the Italian universities nevertheless begin to protest against a system which grants to foreigners on such comparatively easy terms privileges which native graduates only obtain at the expense of much time and study. If foreign universities returned the compliment they would not complain, but this is not so. The University of Pisa, for instance, recently addressed an appeal to the Ordini dei Medici calling for combined action for a repeal of this law, illustrating its unfairness by the case of a Swiss practitioner who had last year obtained the "laurea" of Pisa in the manner just described, although the university (Berne) at which he had taken his foreign degree offers absolutely no facilities to Italian graduates who may wish to take a Swiss diploma. Such a galling inequality is not likely to be permitted to continue, and foreign graduates ambitious of possessing an Italian degree would therefore do wisely to take it while they can.

Oct. 21st.

## CANADA.

(FROM OUR OWN CORRESPONDENT.)

### *Vital Statistics of Toronto.*

DURING the month of September there were registered at the office of the City Clerk of Toronto 339 births, 229 marriages, and 252 deaths. For the corresponding month of 1900 the numbers were: births, 328; marriages, 187; deaths, 290. The registration of births should be larger, as there are yet many physicians throughout the city who are careless with regard to registration, and if the parents also neglect to carry out the regulations with regard to it, it entails a diminished report. The city authorities may consider it again advisable to bring the delinquents before the police magistrate, as was done last winter.

### *Royalty at McGill University.*

During the visit of their Royal Highnesses the Duke and Duchess of Cornwall and York while they were touring to Montreal a visit was paid to McGill University, where the Duke performed the ceremony of declaring open the new buildings erected during the summer term for the requirements of the Medical Faculty. The address of welcome was presented by the Dean (Dr. Craik), who referred to the growth of this famous institution since it was organised in the year 1824. At that time four professors looked after the welfare of 25 students. In 1829 the Montreal Medical College was incorporated with McGill University, then having only 30 students. Last year was the most successful year in the history of the Medical Faculty, there being over 490 students on the rolls. It now takes 70 odd teachers and professors to attend to the medical education of this great number of students. His Royal Highness was presented with a small casket containing a gold key to the door of the new buildings which have been made possible through the generosity of two members of the family of

<sup>1</sup> Some of the Italian schools are not satisfied with this, but insist on the candidate producing certificates to show that he has been separately examined in, and has successfully passed at his own university, all the subjects (including, for instance, ophthalmology and dermatology) prescribed in the previous professional examinations from which he desires to be exonerated. Should the applicant be unable to furnish such certificates he is required to pass in each of the missing subjects before being admitted to the examination of the "laurea."

<sup>2</sup> If not actually written in Italian originally a translation of the thesis into that language must be supplied by the candidate.

Lord Strathcona—Lady Strathcona and the Honourable Mrs. Howard.

#### *Tuberculosis.*

Dr. J. George Adami, professor of pathology at McGill University and superintendent of the Dominion Pathological Laboratory, calls attention to the fact that Professor Koch's recent announcement at the British Congress on Tuberculosis is not by any means a new idea in Canada. Two years ago when the Canadian Medical Association met at Toronto, Dr. Adami contributed a paper with the title, "Is Bovine Tuberculosis Infectious from Animal to Man?" in which he maintained that this was very doubtful.

#### *Ontario Provincial Board of Health.*

The nineteenth annual report of the Ontario Board of Health has but recently been issued and gives some interesting information regarding the health of the province for the year 1900. It shows that there were 25,383 deaths reported in that year, or an average of 11.9 per 1000. The deaths from contagious diseases are given as follows: Scarlet fever, 133; diphtheria, 486; measles, 93; whooping-cough, 121; typhoid fever, 550; consumption, 2360. Consumption by months was as follows: 183, 186, 188, 203, 239, 290, 264, 180, 172, 169, 161, 215. From these returns it would appear that the death-rate from consumption in Ontario could be set down at 10 per cent. There were 161 cases of small-pox with 13 deaths. A very noteworthy decline is seen in the deaths from diphtheria during the past nine years in this province—in 1887 there were 1786 deaths; in 1893, 1044; in 1894, 1075; in 1895, 942; in 1896, 925; in 1897, 976; in 1898, 634; in 1899, 599; and in 1900, 480. The work done in the laboratory embraced an examination of 1669 specimens.

#### *Re-opening of the Medical Schools.*

The medical mills are all at work again grinding out new recruits for the ranks of medicine. In several of the principal colleges there have been great improvements made in laboratories, new buildings have been erected at considerable expense, and great preparations have been made to handle the increased influx of students. Nearly all of the colleges are claiming largely increased first-year classes; and it would appear that more young men are entering upon the study of medicine than at any other time in the history of medical education in this country. As examples of this great prosperity for the medical schools Toronto, Trinity, and McGill may be cited. Toronto has been steadily gaining ground; she has within the last three years outstripped her rival Trinity, and seems to be rapidly forging ahead of the great McGill. The number of new students at Toronto has doubled within the last four years. In 1897-8 61 students registered in the first year; in the following year there were 73; two years ago there were 104; last year there were 124; and for the present year the Dean (Dr. Reeve) is the authority for the statement that before even a single lecture was delivered a larger number of students had been enrolled than were ever enrolled before. Trinity, too, is not far behind, more students being registered on the opening day than had been registered at the same time within 20 years. What this large influx into the ranks of the medical students portends for the profession of medicine when the recent census announcement has been so disheartening will certainly form a very interesting study in the immediate future. Queen's at Kingston, in the eastern part of Ontario, seems also to be well to the fore, but if recent words of the Rev. George M. Grant, principal of that University (who is now lying seriously ill) carry any weight, Queen's is going to make a determined effort to weed out, in the English as well as in the professional branches, irreverent and under-taught students who do not take the study and the subsequent practice of their profession seriously.

#### *Toronto Clinical Society.*

The first regular meeting of this society was held on the evening of Oct. 2nd, the President, Dr. J. F. W. Ross, being in the chair. Dr. H. A. Bruce showed a specimen of a Hairy Tumour which he had extracted from the stomach of a young married woman, aged 26 years—a specimen which he also showed at the recent meeting of the Canadian Medical Association. Dr. A. A. Small presented two patients: the first was a woman of 40 years of age with a Cystic Tumour of the Right Popliteal Space which was probably growing from a tendon-sheath or from one of the bursæ; the second case was presented by Dr. Small as a case of Polymastia. The so-called supernumerary breast was situated on the back of a

woman of 60 years who had borne several children. It was in appearance quite characteristic of a female breast, and its exact location was just behind the posterior axillary line of the right side, corresponding to the lower portion of the scapula. The small, nipple-like tumour had always been present, but the larger tumour upon which it was set had only developed within the last five years. Close inspection could not demonstrate any ducts opening on to the surface of the smaller tumour. The breast never underwent any changes when lactation was present. The general opinion was that the tumour was a lipoma, but it certainly looked very much like an ordinary female breast. Dr. A. A. Macdonald showed a specimen of a Cystic Adenoma of the Breast. He believed in removing the entire breast in these cases. An interesting point in this specimen was that eight weeks before operation no tumour could be demonstrated, although pain was a persistent symptom.

#### *Toronto Medical Society.*

This society opened for the winter session of 1901-1902 on the evening of Oct. 3rd, with Dr. F. N. G. Starr, the newly elected president, in the chair. Dr. Starr delivered a very interesting address on the deceased members of prominence and distinction in the profession from the days when Toronto was known as the "muddy town of York" down to the present time. The lecture, which was illustrated with the photographs of these fathers of medicine in this city thrown upon the canvas, was much appreciated by the members of the society. Mr. Irving H. Cameron showed a number of Calculi, 14 small ones of the collection having been extracted from the cul-de-sac behind the prostate in the bladder of an old gentleman, aged 76 years; the operation was by high section. Dr. Graham Chambers presented a patient, a girl, aged 13 years, who ever since three years of age had been troubled with Hydroa Vaccini-forme. Several scars could be defined upon the patient. Under full doses of arsenic she was now clearer of lesions than she had been at any time since the trouble began. Dr. Alexander Primrose and Dr. Graham Chambers presented a young man, aged 25 years, who came to Dr. Primrose with several warty outgrowths on different portions of his body. One appeared on the right malar bone, another on the right shoulder, another on the neck, and still another at the inner canthus of the right eye, simulating an epithelioma. Dr. Chambers diagnosed the condition as blastomycosis which was subsequently confirmed by finding the fungus under the microscope. Dr. Primrose operated by excising portions of the growths and applying the actual cautery. Two lantern-slide presentations on the canvas showed how much these lesions had improved. The patient took 80 grains of iodide of potassium three times a day for a period of six weeks.

Oct. 5th.

## **Obituary.**

ROBERT HEPBURN, L.D.S.R.C.S. ENG.

At the advanced age of 92 years Mr. Robert Hepburn died at his residence, No. 9, Portland-place, London, on Oct. 17th. Although full of years, and although his youth and middle age were passed amongst a generation that has gone by, his interest in life remained with him to the end, and he took his full share in social and philanthropic work until almost the last days of his existence. Robert Hepburn was born in Edinburgh, at Croft-an-righ, on Jan. 1st, 1810. He was educated at the High School of Edinburgh and in his early youth became apprenticed to a dentist. He left Edinburgh and came to London when he was 21 years of age and in London he lived and worked all his life. His profession brought him success and fortune whilst he practised in Davies-street, Berkeley-square, and later at 9, Portland-place. One of the pioneers in establishing dentistry on a scientific basis he was one of the very first to take the dental diploma at the Royal College of Surgeons of England when that corporation began to issue diplomas in dentistry. In 1859 Mr. Hepburn took a prominent part in founding the Dental Hospital of London, and it must have been very gratifying to him to know that the institution he fostered so carefully is at the request of the King, who has graciously consented to become the patron, to be styled in future the Royal Dental Hospital of London.

Mr. Robert Hepburn had long been known in professional dental circles as a wise and zealous reformer, for we read in a paper which was read by Mr. Alfred Hill in 1856 that "throughout the entire effort to raise the status of the dental profession and among its truest workers and supporters there has been no more candid worker and no more sincere and interested coadjutor than Mr. Hepburn." This honest endeavour to raise the position of the dental profession to a better status than he found it in was the keynote of his professional life and in this good work he had abundant evidence of success. Professional honours were Mr. Hepburn's in plenty. He was surgeon to the Dental Hospital of London; he was an early member, and afterwards president in 1870, of the Odontological Society of Great Britain; and at the London School of Dental Surgery Mr. Hepburn held the lectureship on Mechanical Dentistry for many years. By his colleagues Mr. Hepburn was highly respected for his professional ability and for his loyal exertions in their behalf at all times.

When we turn to his social life we find a theme which it is indeed difficult to do justice to. His professional work we can in some degree estimate; the positions he attained in learned societies have been held with distinction by other men; but Mr. Hepburn's social qualities can only be estimated by those who came in contact with him and who came under the magic of his personality. It was, perhaps, chiefly in Scottish circles in London that he was best known, but in every sphere of life his courtesy was recognised, his large-heartedness was appreciated, and the charm of his overflowing geniality commanded friends everywhere. Of fine physique—he stood six feet three inches and was proportionately broad and deep-chested—he has left few physical equals or physical superiors in the realm. His mental and social qualities were modelled upon his physical, and gave us a picture of strength, manliness, and amiability of character. These qualities were excellently portrayed by Sir Daniel McNece, President of the Royal Scottish Academy, in his painting of Mr. Hepburn. In 1857, when the picture was painted, Mr. Hepburn was in his prime, and never had painter a more handsome model to delineate. The portrait was presented by the members of the Caledonian Society of London, a society of which Mr. Hepburn was at once the founder and father. Eleven times was Mr. Hepburn elected president of this society, and by his constant endeavour, the urbanity of his manner, and his ever open-handed charity he played the chief part in carrying the society to a flourishing state. In every Scottish charity in London he played a part. The authorities of the Royal Caledonian Asylum recognised the work he did in behalf of that institution by the presentation of an illuminated address. He was a loyal supporter and a vice-president of the Royal Scottish Corporation, and it was at a meeting of this corporation that he made his last public appearance, when on Jan. 31st, 1900, he seconded a motion made by Lord Rosebery conveying a message of condolence on the death of Queen Victoria from the Royal Scottish Corporation. In many other ways Mr. Hepburn found an outlet for his charity. He founded, and acted as treasurer for no less than 37 years to, the Ogle Mews Ragged School, and of the Somers Town Blind Aid Society he was a vice-president. Mere statements of positions held, however, convey but an inadequate picture of the man. His deeds may not look different from those of many other men when reduced to mere historical records; but neither pen nor pencil can delineate the charm, the courteous bearing, and the warm-hearted geniality of Mr. Robert Hepburn.

#### CHARLES KING, M.R.C.S. ENG., L.S.A.

MR. KING, whose death was recorded lately at the age of 76 years, was born at Southampton. His medical education was pursued at Guy's Hospital and to the end of his life he reverted with constant pleasure and respect to the men of that school, particularly to Mr. Aston Key (for whom he acted as dresser), Dr. Addison, and others. After becoming qualified he was engaged for some time in the service of the Peninsular and Oriental Company and then he commenced practice in the City-road, where he remained for three or four years. Thence he removed to Highbury-park, where he succeeded Dr. Dobson who had recently died. Mr. King continued to practise there for 43 years, enjoying for the most part excellent health until a few months before his death, when he rapidly failed. He had a somewhat brusque and

Johnsonian manner but was a man of high character and was greatly esteemed by his patients and by his professional brethren.

#### HENRY DUNCALFE, M.R.C.S. ENG., L.S.A., J.P.

WIDESPREAD regret is felt at the death of Mr. Henry Duncalfe, which took place on Oct. 20th in his seventy-third year. Failing in health for some months past he left his home at Sutton Coldfield to undertake a course of treatment at the brine baths at Droitwich. On the evening preceding his death he was seized with an attack of heart failure, to which he succumbed a few hours later in the presence of his wife who had accompanied him. Mr. Duncalfe was born at Walsall, was educated at the Grammar School, and was afterwards apprenticed to Mr. Edwards, a surgeon of that town. Subsequently he entered as a medical student at Guy's Hospital, becoming a Member of the Royal College of Surgeons of England and a Licentiate of the Apothecaries' Society in 1851. He then joined Mr. Allerton of West Bromwich, and at the death of this gentleman some three years later he acquired the practice which he developed into a large and prosperous undertaking. His strength was hardly equal to the continued strain of the size to which his practice grew and in 1874 he ceded his work to his partner, Mr. A. P. Evans, and retired to Sutton Coldfield. Here he acquired a small practice and a sphere congenial to his tastes and habits, forming a circle of friends who held him in the highest regard and esteem.

Mr. Duncalfe became associated with the public work of the borough of Sutton Coldfield and was elected warden and chief magistrate under the old corporation. He took an active interest in educational matters also, being a governor and chairman of the Grammar School Board. Subsequently his name was placed upon the commission of the peace for the county of Warwick, where his judgment, his fairness, and his impartiality were always respected.

Mr. Duncalfe was an accurate observer of nature. As a student of natural history in his early days he formed a large and interesting collection of butterflies and moths. His tastes were largely of a scientific order and in this direction led him to precision and cleverness in his professional practice. In 1862 he was elected president of the Birmingham and Midland Counties Branch of the British Medical Association and he contributed several papers of practical interest to the branch. As a sagacious counsellor, a firm friend, and a public-spirited citizen his name will long be remembered. He leaves a widow and a daughter to mourn their loss.

## Medical News.

**SOCIETY OF APOTHECARIES OF LONDON.**—In October the following candidates passed in the subjects indicated:—

**Surgery.**—C. E. C. Child (Section II.) and G. B. Dixon (Sections I. and II.), Charing Cross Hospital; P. J. Fitzgerald, Dublin; I. Griffith (Section I.), London Hospital; W. B. Harris (Section I.), St. Mary's Hospital; D. Morrow (Sections I. and II.), Middlesex Hospital; and W. Parker (Section I.), Manchester.

**Medicine.**—D. E. Lockwood (Section II.), Royal Free Hospital; E. E. Naggjar (Sections I. and II.), St. Mary's Hospital; W. Parker (Sections I. and II.), Manchester; and F. M. Payne (Section II.), Royal Free Hospital.

**Forensic Medicine.**—E. C. Curtis, Charing-cross Hospital; R. Gillett, Royal Free Hospital; and E. E. Naggjar, St. Mary's Hospital.

**Midwifery.**—T. J. M. Clapperton, King's College Hospital; A. F. Heald, Cambridge; P. S. Hopkins, London Hospital; H. Johnson, Guy's Hospital; G. F. G. de Laubenque, Middlesex Hospital; T. G. Miles, Guy's Hospital; W. Parker, Manchester; H. Richardson, Leeds; C. W. Smith, Sheffield; and A. Turner, Charing-cross Hospital.

The Diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery:—C. E. C. Child, G. B. Dixon, P. J. Fitzgerald, D. Morrow, E. E. Naggjar, and H. Richardson.

**UNIVERSITY OF EDINBURGH.**—At the special graduation ceremonial held on Oct. 19th the following degrees were conferred:—

**Degrees of Bachelor of Medicine and Master in Surgery.**—Clarence Granville Hey, England; Arthur Hutton M'Shine, Trinidad; Albert Cormac Peterson, Australia; Percy Wilfred Shepherd, England.

**Degrees of Bachelor of Medicine and Bachelor of Surgery.**—Arthur John Brock, Scotland; Alfred Brown, Scotland; John Webster Duffus, M.A., Scotland; John Munro Dupont, England; William

Francis Lucius Austen Holcroft, England; John Jamieson, Scotland; Ernest Winbolt Lewis, India; Harriet M'Cloghry, Ireland; John Bryce M'Cutcheon, Ireland; Lionel Alexander MacMunn, England; Kenneth Duncan Cameron Macrae, Scotland; Antoine Felix Gaston Masson, England; Robert Murray, Scotland; Peterswald Pattison, Scotland; George Archibald Park Ross, Scotland; Richard Rutherford, Scotland; George William Smith, Scotland; Charles William Somerville, Scotland; William Casswell Spooner, England; George Henry Steven, Scotland; George Cecil Strathairn, Scotland; James Paget Thorne, England; Noel Nathaniel Wade, Wales; Ernest Alexander Walker, Scotland; Douglas Larmer Wall, England; Harold Edgar Wareham, England, and Philip Weatherbe, Canada.

*Special University Certificate in Diseases of Tropical Climates.*—Antoine Felix Gaston Masson, M.B., Ch.B.

*Degree of Bachelor of Science.*—Joseph Samuel Martyn, M.A.; and in the Department of Public Health, John Fleming Goodchild, M.D.

**OXFORD WOMEN'S AMBULANCE SOCIETY.**—The Mayor of Oxford (Mr. G. C. Druce), who is also president of the Pharmaceutical Conference of Great Britain and Ireland, distributed on Oct. 18th the certificates and medals awarded to the members of the society who had been successful in the examinations. There was a crowded attendance of ladies. Mr. E. C. Hale Jessop (honorary secretary) stated that since February, 1899, 396 had attended the classes, 265 had entered for the examinations, and 211 had received certificates. The ladies also had three nursing classes, 52 receiving certificates. The figures went to prove that the ladies took far greater interest in the work than the men. The mayor congratulated the members on the results and made some sound remarks emphasising the need for precaution against the transmission of disease by dust, dirt, polluted water, and clothing.

**ROYAL COLLEGE OF PHYSICIANS OF IRELAND.**—At the stated annual meeting of the President and Fellows held on St. Luke's Day, Oct. 18th, Dr. W. A. Winter was elected a Fellow of the College.

**MEDICAL ALDERMAN.**—At the meeting of the Plymouth Borough Council held on Oct. 14th, Mr. John Henry Square May, M.R.C.S. Eng., L.S.A., J.P., was unanimously elected an alderman for the borough.

**LUNACY IN SOMERSET.**—At the meeting of the Somerset County Council held on Oct. 15th, it was reported by the Joint Lunatic Asylums Committee that there were 1320 lunatics (760 females and 560 males) on the books, as compared with 1300 for the corresponding date of 1900. The weekly charge to be made to the unions during the ensuing quarter has been fixed at 9s. 4d. per head.

**CENTENARIANS.**—It is stated that Mrs. Elizabeth Wilmot of Kirkby Laythorpe, near Sleaford, Lincolnshire, who is now in her 102nd year, was last September awarded a prize for needlework at a local industrial exhibition.—Mrs. Southall of Wellington-road, Edgbaston, Birmingham, last September celebrated her hundredth birthday in the midst of a large circle of children, grandchildren, and great-grandchildren. Till about 80 years of age she led a life of great activity and visited for 40 years in the service of the Aged Women's Society, of which she was one of the principal founders. Mrs. Southall attributes her longevity chiefly to her abstinence from intoxicants. She signed the temperance pledge nearly 70 years ago, and ever since that time temperance work has had her warmest sympathy. She was born in 1801 in Great Charles-street, Birmingham, and married in 1824 the late Mr. Thomas Southall of Bull-street, whom she has survived for 40 years.

**NEGLECT AT BIRTH.**—An inquiry was held at Newton Abbot (Devon) on Oct. 12th relative to the death of the new-born child of the wife of a soldier who has been in South Africa for two years past. The woman was delivered of the child on Sept. 17th with only her sister, a girl, aged 16 years, in the house. The sister wanted to fetch assistance, but the mother declined, as "she wanted to keep it quiet." The infant died shortly after its birth. The next day a medical man was called in and asked to give a certificate of still-birth. He declined to do so, and at the inquest he stated that the lungs were only partly inflated and added that if the child had been properly attended at birth it would probably have lived. The jury eventually returned a verdict that the infant had died through the wilful neglect of the mother in not procuring the necessary assistance at birth. The deputy coroner said that was tantamount to manslaughter and the woman was committed to take her trial at the assizes.

**UNIVERSITY OF CAMBRIDGE.**—From returns kindly furnished by the college tutors, it appears that the number of freshmen intending to study medicine at Cambridge is 115.

**A NEW SANATORIUM FOR CONSUMPTIVES.**—On Oct. 18th the Countess of Derby opened, in Delamere Forest, Cheshire, a sanatorium, the gift of Lady Willox and Mr. W. P. Hartley of Liverpool. The new buildings will be used in connexion with the Liverpool Hospital for Consumption and Diseases of the Chest. The sanatorium has cost nearly £15,000.

**GENEROUS GIFT TO FROME HOSPITAL.**—At a meeting of the Victoria Hospital and Nurses' Home Committee, held at the public offices, Frome, on Oct. 18th, Major Sheppard, one of the joint honorary secretaries, announced that Mrs. Chandless of Brighton had expressed her intention of giving £2000 to the hospital for the purpose of endowing two beds. Mr. Alfred Parsons, A.R.A., has offered to furnish the committee with a plan for the laying out of the grounds, which has been accepted.

**REMUNERATION OF A MEDICAL OFFICER OF HEALTH.**—At the Guildford County Court on Oct. 17th Mr. H. Beale Collins, medical officer of health of the borough of Kingston, sued the Guildford Rural District Council for £32 11s. for work performed in connexion with the preparation of the annual health report for the period January to July, 1900. It appeared that in March, 1900, Mr. Wellington Lake, medical officer of health of the Guildford Rural District Council, went to South Africa and died there on July 16th of that year. Mr. Collins made an arrangement with Mr. Lake to take over the duties of the latter as medical officer of health as a friendly act without any remuneration whatever beyond out-of-pocket expenses. The council requested him to make up the report for the half-year but declined to pay for the work. In giving judgment his honour said that during the period in question Mr. Collins was not a servant of the council, but Mr. Lake was the responsible person. After Mr. Lake's death there was no legal machinery to compel Mr. Collins to make out that report. He therefore gave judgment for the plaintiff for the amount claimed with costs.

**AN INSANITARY AREA IN BIRMINGHAM.**—In June last the Rev. T. J. Bass, vicar of St. Laurence's, Birmingham, and 12 ratepayers connected with that church signed a requisition calling attention to the insanitary condition of a portion of the parish extending to 14½ acres. This requisition, which has been presented under the Housing of the Working Classes Act, 1890, stated that the annual death-rate in this area was about 40 per 1000. A report by Dr. Alfred Hill, the medical officer of health, was to the effect that the number of dwelling-houses in the area was 589, with a population of 2429. The district included many non-residential spaces, such as works, factories, and yards. If the area allotted to the dwellings only were taken into account the number of persons per acre was 272, as against 41 per acre for the whole city. The houses seemed to combine all possible sanitary defects. The Birmingham *Daily Argus* says that under the Housing of the Working Classes Act, 1890, responsibility now devolves upon the city council, which may prepare an improvement scheme and submit it to the Local Government Board, or in the event of the corporation not seeing their way to take action they must lay the facts before the Local Government Board, who may hold an independent inquiry.

**"RETURN" CASES OF INFECTIOUS DISEASE.**—At a meeting of the Metropolitan Asylums Board on Saturday, Oct. 19th, the Hospitals Committee reported that they had considered a communication from the Local Government Board, enclosing a copy of a letter from the grandfather of a patient in one of the board's hospitals. The writer stated that his grandson, a convalescent scarlet fever patient, was discharged from the Northern Hospital on August 3rd, and four days afterwards was admitted into the Eastern Hospital, suffering from diphtheria, his sister being received into the same hospital, also suffering from diphtheria, two days later. Reports on this case had been received from Dr. Hague, the acting medical superintendent of the Northern Hospital, and from Dr. Cameron, the board's medical investigator of returned cases. From these reports it appeared that the patient was thoroughly examined before he was discharged from the hospital, and that there was then

no evidence of diphtheria or of his being in any way ill. On the day following his discharge, as the child did not seem very well, the mother appears to have taken him to see two separate practitioners, neither of whom diagnosed the case as diphtheria. On August 7th the child was visited by another practitioner both in the morning and evening, and on the latter occasion was certified to be suffering from diphtheria. The committee were informed that it was a matter of common experience for symptoms of laryngeal diphtheria to show themselves with great suddenness, and this appears to have been the case with the boy in question. The report was adopted.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

**BENNETTS, A. J., M.R.C.S., L.R.C.P. Lond.**, has been appointed Assistant Medical Superintendent of the Infirmary and Assistant Medical Officer of the Gordon-road Workhouse of the Parish of St. Giles, Camberwell.

**BIRD, ARTHUR CYRIL, M.R.C.S. Eng., L.R.C.P. Lond.**, has been appointed Honorary Surgeon to the Victoria Cottage Hospital, Sidmouth, Devon, vice A. Macindoe, resigned.

**BROWNLEE, ALX., L.R.C.P. & S.E., L.D.S. Edin.**, has been appointed Senior House Surgeon to the Ingham Infirmary, South Shields, vice H. Crechlar, resigned.

**BYGOTT, ALBERT HENRY, M.B. Lond.**, has been appointed District Medical Officer and Public Vaccinator for the Deritend and Bordesley Districts of the Aston Union, vice Flamank Marshall (deceased) and B. S. Robins.

**COLLINS, E. TREACHER, F.R.C.S.**, has been appointed to the newly created post of Ophthalmic Surgeon to the Charing-cross Hospital and Lecturer on Ophthalmology at the Medical School.

**CUTFIELD, A., M.R.C.S., L.S.A.**, has been appointed Medical Officer for the Urban District of Ross.

**DEACON, MARY STEWART, M.B., B.S. Lond., L.R.C.P. & S. Edin.**, has been appointed Medical Officer of Health to the Accra Town Council, West Africa.

**EVANS, C. W., M.B. Lond., M.R.C.S.**, has been re-appointed Medical Officer of Health for Bakewell for a further period of five years.

**FORSYTH, A. F., M.B., C.M. Aberd.**, has been appointed District Medical Officer for Kea and West Kenwyn by the Truro Board of Guardians.

**HICHENS, FRANK, M.D., B.S. Lond., M.R.C.S., L.S.A., D.P.H. Lond.**, has been re-appointed Medical Officer of Health for Redruth (Cornwall).

**JACKSON, D., M.D., L.F.P.S. Glasg.**, has been appointed Medical Officer for the Urban District of Hexham.

**LAMB, J. M. A., L.S.A.**, has been appointed District Medical Officer of the Poole Union.

**SUTCLIFFE, W., M.R.C.S., L.R.C.P. Lond.**, has been appointed Medical Officer of the West Bromwich No. 3 District.

**SYKES, WALTER, L.R.C.P., L.R.C.S. Eng., L.F.P. & S. Glasg.**, has been appointed Junior House Surgeon to the Birmingham and Midland Eye Hospital.

**THOMAS, J. C., M.D. R.U.I., L.F.P.S. Glasg.**, has been appointed Public Vaccinator for Metropolitan District, Victoria.

**WACE, R. H., M.B. Aberd.**, has been appointed District Medical Officer, Quarantine Officer, and Public Vaccinator at Onslow, West Australia.

**WILLETT, GEORGE GILMORE DRAKE, M.R.C.S., L.S.A.**, has been appointed Medical Officer for the Marksbury District by the Keynsham Rural District Council.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

**BELGRAVE HOSPITAL FOR CHILDREN.**—Honorary Dental Surgeon.

**BETHNAL GREEN INFIRMARY.**—Assistant Medical Officer. Salary at rate of £100 per annum, with furnished apartments, board, and washing.

**BRACEBRIDGE ASYLUM, near Lincoln.**—Junior Assistant Medical Officer, unmarried. Salary £125 per annum, with apartments, board, attendance, &c.

**CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's-inn-road, W.C.**—House Surgeon. Salary at rate of £50 per annum, with board and residence.

**COUNTY ASYLUM, Lancaster.**—Assistant Medical Officer, unmarried. Salary £150, increasing to £200, and on promotion to £250, with apartments, board, washing, and attendance.

**DUMFRIES AND GALLOWAY ROYAL INFIRMARY.**—House Surgeon. £50 per annum, with board and washing.

**ESSEX COUNTY ASYLUM, Brentwood.**—Fourth Assistant Medical Officer. Salary £150 per annum.

**GLOUCESTER GENERAL INFIRMARY AND GLOUCESTERSHIRE EYE INSTITUTION.**—Assistant House Surgeon for six months. Remuneration at rate of £30 per annum, with board, residence, and washing.

**GRIMSBY AND DISTRICT HOSPITAL.**—Resident House Surgeon. Salary £30 per annum, with board, lodging, and washing.

**GROVE HALL ASYLUM, Bow, London, E.**—Junior Assistant Medical Officer. Salary £120, with board, apartments, attendance, and laundry.

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.**—Resident Medical Officer. Salary £200 per annum, with board and residence.

**HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.**—Senior Clinical Assistants for six months, renewable.

**INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.**—Junior House Surgeon. Salary £75 per annum, with residence, board, and washing.

**LEICESTER INFIRMARY.**—Assistant House Surgeon. Salary £80 per annum, with board, apartments, and washing.

**LINCOLN COUNTY HOSPITAL.**—Senior House Surgeon, unmarried. Salary £100 per annum, with board, lodging, and washing.

**LONDON HOSPITAL, Whitechapel, E.**—Aural Surgeon.

**LONDON TEMPERANCE HOSPITAL, N.W.**—Medical Officer for six months. Honorarium at the rate of 50 guineas per annum, with board and residence.

**MACCLESFIELD GENERAL INFIRMARY.**—Junior House Surgeon. Salary £70 per annum, with board and residence.

**ROTHERHAM HOSPITAL.**—Assistant House Surgeon. Salary £80 per annum, with board, &c.

**ROYAL SEA BATHING HOSPITAL, Margate.**—Resident Surgeon, as Junior for six months and then as Senior for the like period. Salary at rate of £80 and £120 per annum respectively, with board and residence. Also Honorary Visiting Surgeon.

**ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.**—Surgeon and Assistant Surgeon.

**RURAL DISTRICTS IN THE COUNTIES OF LEICESTER, RUTLAND, AND WARWICK.**—Medical Officer of Health. Salary £550 per annum (inclusive of travelling and other expenses).

**SALFORD ROYAL HOSPITAL.**—Two Honorary Medical Officers.

**SALISBURY INFIRMARY.**—House Surgeon, unmarried. Salary £100 per annum, with board, lodging, and washing. Also a House Physician under 30 years of age and unmarried. Salary £75 per annum, with board, lodging, and washing.

**SCHOOL BOARD TAUNTON SCHOOL, Highbury-grove, N.**—Medical Officer. Salary £125 per annum.

**ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM, City-road, London, E.C.**—Honorary Physician.

**UNIVERSITY OF GLASGOW.**—Examiner for Degrees in Medicine and Science, with special reference to Chemistry. Salary £30 per annum. Also Examiners for Degrees in Medicine, with special reference to (1) Materia Medica and Therapeutics, (2) Zoology, (3) Practice of Medicine (Systematic and Clinical), and (4) Surgery (Systematic and Clinical). Salary for (1) and (2) £30 each and for (3) and (4) £50 each.

**WEST RIDING ASYLUM, Wakefield.**—Locum Tenens for three months. Salary £3 3s. per week, with apartments and board.

**WESTERN DISPENSARY, Rochester-row, Westminster, S.W.**—Attending Medical Officer.

**WESTERN GENERAL DISPENSARY, Marylebone-road.**—Honorary Physician.

## Births, Marriages, and Deaths.

### BIRTHS.

**ALEXANDER.**—On Oct. 14th, the wife of W. G. Alexander, M.B., M.S. Edin., of a son.

**LEVICK.**—On Oct. 16th, at Havant, to the wife of George Levick, a son.

**SANDALL.**—On Oct. 13th the wife of Thomas Edward Sandall, M.B., B.C. Cantab., M.R.C.S., L.R.C.P. Lond., of a daughter.

### MARRIAGES.

**ARMOUR-MITCHEL.**—At Cobourg, Canada, on Oct. 2nd, 1901, Marie Louise, daughter of the late Captain O. M. Mitchel, U.S.A., and stepdaughter of James Hoban, Esq., of Washington, D.C., to Donald John Armour, M.B., F.R.C.S. Eng., son of the Hon. the Chief Justice of Ontario.

**COOMBE-JOHNSTONE.**—On Oct. 22nd, at St. Barnabas, Beckenham, by the Rev. A. H. Cooke, M.A., Fellow of King's College, Cambridge, head-master of Aldenham School, assisted by the Rev. N. M. Morgan-Brown, M.A., minor canon of St. Paul's, and the Rev. George Griffith, vicar, Russell Coombe, M.A., M.D. Camb., F.R.C.S. Eng., of Exeter, to Eve Harriet Cartledge, eldest daughter of John Cartledge Hirst Johnstone, J.P., of Beckenham, and formerly of Hardwick Hall, County Durham.

**FOOKS-BAINES.**—On Oct. 16th inst., at the parish church, Naburn, York, by the Bishop of Sodor and Man (uncle of the bride), the Rev. Randall Vickers (vicar), and the Rev. Richard Freeman, Edward Verdon Russell Fooks, M.R.C.S., L.R.C.P., younger son of Walter Pemberton Fooks of Auckland, N.Z., to Hilda Jane Maud, daughter of William Mortimer Baines of Belt Hall, York.

**GOING-EDGECOMBE.**—On Oct. 16th, at St. Nicholas's Church, Blundell-sands, Robert Marshal Going, F.R.C.S., to Fanny Augusta, daughter of the late George Edgecombe.

**YOUNGE-RAWCLIFFE.**—On Oct. 17th, at St. George's Church, Hanover-square, London, Thomas M. Young, M.B., M.S. Edin., to Florence Annie, third daughter of Henry Rawcliffe.

### DEATHS.

**APLIN.**—On Oct. 21st, at Hill House Notts County Asylum, Alfred Aplin, M.D., M.R.C.S., L.R.C.P., aged 47, Resident Medical Superintendent of Notts County Asylum.

**BENNETT.**—On Oct. 18th, at his residence, Sloane-street, Francis Graham Bennett, M.R.C.S., L.S.A., aged 59.

**BENTHAM.**—On Oct. 15th, at Ellerslie, Willesden, London, N.W., Robert Bentham, M.D. Aberd., aged 81.

**HOLDING.**—On Oct. 17th, at East Hendred Rectory, the residence of his son-in-law, Charles Holding, F.R.C.S., late of Victoria-street, Westminster, aged 93 years and 9 months.

**PEETE.**—On Oct. 20th, at Great College-street, Brighton, Thomas Peete, M.D. St. And., M.R.C.S., L.S.A., formerly of Margate and Tunbridge Wells, aged 76.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## Notes, Short Comments, and Answers to Correspondents.

### "HOW DISEASE IS SPREAD."

AT an inquest held by the East London coroner at Stepney on Oct. 10th, it was mentioned that six persons of one family, varying from the age of two years to 17 years, had been suffering from small-pox without being medically attended. None of the sufferers had been vaccinated. Two of the children had been attending school and the elder lad had been out at work. That such a state of things should exist is remarkable and but for the prompt action of a medical man another nidus of infection might have been added to the seriousness of the prevailing epidemic. At the same inquest the coroner mentioned that a woman living in the house of the above-mentioned family had been found drunk in the street and suffering from small-pox. On Oct. 15th a female inmate of St. Giles Casual Ward was certified to be suffering from small-pox and while the ambulance was being requisitioned the woman escaped from the ward. After exchanging and re-exchanging her clothes with a blind woman to escape discovery she was found the following day in a state of intoxication on a doorstep in the parish from which she escaped. She was covered with eruption. Had the woman not been discovered she would have slept for the night in a house let in tenements and the consequences would perhaps have been serious. Great praise is due to Mr. Shirley Murphy and Mr. A. Wynter Blyth whose prompt action and zeal effected the woman's capture. Quite recently a man who had returned to Warminster from London was retained in the Warminster Workhouse suffering from small-pox. Another case of allowing children while suffering from an infectious disease to mingle with their fellows is also reported. In this case the child had been suffering from scarlet fever and was in the peeling stage. The bench, remarking that the public must be protected, fined the parent the ridiculously small sum of 2s. 6d. Dr. J. C. Thresh, the medical officer of health of Chelmsford, has reported the following case. On Oct. 5th a medical man called on him saying that there was a case of diphtheria at Springfield which he wished removed at once. As the ambulance had just gone out for a patient and would not be back till very late Dr. Thresh agreed that the patient should be admitted to the infectious hospital if some way of removal could be found. Later, a cab conveyed the patient to the hospital, and after leaving the patient with the nurse the driver took the cab away, although he (Dr. Thresh) had given instructions that the vehicle should be disinfected. It was subsequently discovered that the driver was not told that he was conveying an infectious case, and that on leaving the hospital he drove a lady and gentleman to a dinner-party. The Chelmsford Rural District Council have decided to take proceedings against the father of the patient in this case.

### "QUERIES ABOUT NEW ZEALAND."

To the Editors of THE LANCET.

SIRS.—Referring to the correspondence in THE LANCET of Oct. 19th, p. 1094, under the above heading, *Sharland's New Zealand Journal* and the *New Zealand Medical Journal* are the only medical journals of the colonies. Particulars may be had from us.

We are, Sirs, yours faithfully,

43, London Wall, Oct. 19th, 1901.

SHARLAND AND CO.

### "QUO VADIS" CIGARETTES.

THE Ardath Tobacco Co., of 44, Worship-street, London, E.C., have submitted to us some specimens of Turkish cigarettes, the tobacco of which they state is of a particularly pure kind and free from "faking" and from "seenting" matter. We could certainly trace no glycerine or added saccharine matter or any odour not due to tobacco. The tobacco itself is a satisfactory quality of Dubec. The smoke is agreeably aromatic and free from pungency. It would be better, we think, if the cigarettes could be made thicker so as to diminish the ratio of paper to tobacco.

### ELECTRICAL MANIFESTATIONS IN THE TREATMENT OF DISEASE.

THE particular form of etheric disturbance known as electricity has without doubt a powerful influence upon nutrition, and treatment by electricity is nowadays, as our columns bear witness, on its trial as a means of combating various morbid conditions. Electricity itself can be used in varied forms or can be easily converted into light or heat. But inasmuch as the apparatus for producing it in any quantity is not capable of being moved about easily it is more convenient as a rule to bring the patient to the electricity than to reverse the process. Electrical institutions have, up to the present, so far as we know, never confined themselves to working as an adjunct to medical practitioners. They have always treated patients on their own account. The latest institution of the kind, however, claims, and we think with justice, to work solely with the medical profession. That is to say, a patient applying for treatment must be provided with a recommendation from a medical man, and the management of

the institution prefer that this medical man should superintend the treatment himself. The institution is known as "The Electrical Ozone and Light Treatment," 14, Hanover-square, W. The installation consists of a series of comfortable rooms and cubicles for electric light-baths. The patient lies, undressed, on a plate-glass couch where he is exposed to the radiations of two sets of incandescent lamps which are arranged both above and beneath the couch. Free perspiration is quickly induced and the patient is subsequently massaged by a trained operator. A d'Arsonval high frequency apparatus is used to ozonise the air of the cubicle during the exposure in the light bath, and this apparatus is also arranged for the direct application of high frequency currents to the patients, if required. There are separate rooms and a massage for ladies. We think that probably the most valuable therapeutic agent will be found to be the electric light-baths. The ozone, beyond keeping the air of the cubicles fresh, has, we should say, but little effect.

### OPEN-AIR SANATORIA FOR THE TREATMENT OF PHTHISIS.

To the Editors of THE LANCET.

SIRS,—I would be glad if any of your readers could kindly inform me of an open-air sanatorium for a consumptive patient. Terms from 10s. to 30s. a week. Patient is a case that has greatly improved while residing at a farm for the last six months, but requires further treatment. Has the National Association for the Prevention of Consumption, and other Forms of Tuberculosis been instrumental in establishing such sanatoria in the South or Midlands? If so, where? I venture to ask this, as some time has elapsed since you published an article in THE LANCET dealing with open-air institutions in 1899.

I am, Sirs, yours faithfully,

Oct. 21st, 1901.

J. T. V.

\* \* A few sanatoria have been established by private or local generosity and more are contemplated.—ED. L.

### THE ANDERSON FUND.

THE committee formed to appeal for aid for the widow and two sons of the late Mr. R. B. Anderson, F.R.C.S. Eng., beg to announce the following additional list of subscriptions from July 26th to Oct. 22nd. The total amount now subscribed is 73 guineas.

	£	s.	d.		£	s.	d.
Mr. Edmund Owen	2	2	0	Mr. W. F. Brook	1	1	0
Mr. Reg. Gilbert	2	0	0	K. W. M.	1	1	0
Dr. G. Danford	2	0	0	Mr. G. B. Forge	1	0	0
Thomas	2	2	0	Mr. A. H. Dodd	1	1	0
Dr. F. de Havilland	2	2	0	Dr. Collier	2	2	0
Hall	2	2	0	Dr. W. J. Branch	1	0	0
Dr. Connel	1	0	0	Mr. G. Jackson	1	1	0
H. C. M.	0	5	0	Mr. R. J. Page Smith	1	1	0
Mr. W. R. Burchell	1	1	0	Captain W. R. Battye			
Dr. Edmund Frost	2	2	0	I.M.S.	1	1	0
Mr. B. Balding	1	1	0				

Donations for "The late R. B. Anderson Fund" should be sent and made payable to the Manager, Union Bank of London, Chancery-lane, London. As it is proposed to close the fund at an early date intending subscribers are requested to send in their donations without delay. The Earl of Stamford is the chairman; Mr. Timothy Holmes, F.R.C.S., is the honorary treasurer; and Mr. Walter Monnington, 7, Fig Tree-court, Temple, E.C., is the honorary secretary of the Fund.

### "HOMES FOR EPILEPSY."

To the Editors of THE LANCET.

SIRS.—Your correspondent "M.D." in THE LANCET of Oct. 19th, p. 1094, should try to get his patient into the Magull Home for Epileptics near Liverpool or the Epileptic Colony near Chalfont St. Peter, Bucks.

I am, Sirs, yours faithfully,

Didsbury, Oct. 20th, 1901.

JOHN MILSON RHODES, M.D. BRUX.

### MEDICINE AND POLITICS IN FRANCE.

A LADY writing over the signature "Grace Corneau" in the *Daily Mail* of Oct. 19th gives some interesting details regarding the medical profession in France and the association of its members with politics. At the last election "the large number of 51 doctors were elected to the Chamber of Deputies," while "among the members of the Senate a surprising proportion of medical men were also returned." According to the writer, such a selection of legislators is an amazing circumstance, quite incomprehensible to an Englishman, and yet immediately afterwards she adduces reasons, which she characterises as adequate, why the career of medicine should be looked upon by our neighbours as the "road to rulership." From sunrise to sunset, sometimes far into the night, the country practitioner drives about in his little "cariole," having with him, besides his medicine case, all kinds of books, newspapers, and "revues" (magazines or pamphlets), which he distributes among his patients. At every habitation he stops to chat with the occupants, thus discussing politics from one year's end to the other. "It is not strange," adds Madame Corneau, "that under these conditions ..... the doctor propagates his political opinions, makes himself popular, and becomes ..... the preferred candidate of his 'concitoyens' (fellow-citizens)." Many young men in France regard medicine as one of the surest roads to public life, but it is sad to learn that they are driven thereto because "nothing is more ungrateful than the medical profession in the provinces."

A provincial practitioner's fees are described as "pathetically modest." For what are called "office consultations" the peasant pays from 1s. 2d. to 1s. 8d., and the latter fee, with 5d. a mile for "déplacement" is also the usual charge for a visit. Very frequently, however, the miserly sick man will evade the depletion of his well-filled purse by presenting his attendant with "a lean goose, a tough chicken, or a sack of mediocre potatoes." Incidentally Madame Corneau relates an amusing story in which mention is made of rather a novel kind of remedy. In Paris "there are a large number of 'médecins-fonctionnaires' (official doctors)," one of them being attached to the Comédie Française. During a performance an actress was suddenly taken ill and fell fainting on the floor. The ticket-taker, who apparently was present, had noticed the medical man's pass among those that had been presented, so "an 'ouvreuse' (a woman usher)" was hastily sent in front to summon him behind the scenes. Arriving post haste, the first thing the ostensible physician did was to order everyone out of the "loge," where the unconscious patient had been carried. Then approaching her he shook her gently and said: "Madame, I much regret, but I am only a hardware merchant. Dr. X—is out of town, and kindly lent me his pass; what ought I to do for you?" Upon this, so great was her surprise, the lady forthwith regained her senses!

#### TREATISES BY GALEN.

In the British Museum there are several Syriac manuscripts containing translations of treatises by Galen, dating from the seventh, eighth, and eleventh centuries and recently Professor Gottheil of Columbia University, United States, under the title of "Contributions to Syriac Folk-Medicine" has published a manuscript in the *Bibliothèque Nationale* which consists of extracts from Syriac materia medica (see *Journal of the American Oriental Society*, vol. xx.). They relate only to diseases of the eyes, scalp, ears, and throat. The manuscript is quite a late one, but a copy of evidently an ancient text, and is really based upon Galen's *περὶ συνθέσεως φαρμάκων τῶν κατὰ τόπους βιβλία*, l. (see Kuhn's Galen, vol. xii.). The remedies recommended are of the most absurd folk-lore description and in most cases are quite useless, and we only allude to their publication for the benefit of any reader who may be making a selection of such, sometimes unsavoury, medical matters, or of scholars desirous of knowing any manuscript that may throw light upon the correct text of Galen's works. A curious coincidence with regard to Galen and the New Testament may be mentioned here. In his "De Sanitate Tuenda" he tells us that the finest eye-salve was made at Laodicea. Now, in Revelations iii., 18, the "Angel," or personification of Laodicea, is advised to anoint his eyes with eye-salve, which thus evidently was connected with the products of the city.

#### CREAM DRINKS.

Messrs. Kops of Eagle Mills, London, S.E., are introducing a method of preparing temperance beverages which claims some notice. The apparatus consists in reality of a small portable churn by which the beverage is sharply agitated upwards and downwards. This is done by placing the beverage in a glass on the platform of the apparatus which moves rapidly up and down by means of a crank attached to a wheel provided with a handle. The effect of rapidly shaking milk in this way is to give it a peculiarly creamy and attractive flavour. A series of flavourings are prepared, including coffee, vanilla, strawberry, and raspberry, for use with the milk. The coffee and vanilla flavourings are particularly good and are evidently prepared by adding the genuine respective essences to crystalline sugar. We could find no objectionable ingredients in them. The apparatus may be hired and it may be seen in operation at many refreshment bars. In summer ice-scrappings may be used, while in winter the preparation may be warmed. An ice-plane for obtaining ice-shavings is included in the equipment. The method provides a decidedly wholesome beverage and is entitled to commendation since it is calculated to reduce indulgence in alcoholic drinks.

#### "DICKENS'S DOCTORS."

We have received from Messrs. Carnrick and Co., Limited, a little circular in which written testimonials to the merits of their preparations are interleaved with illustrations of the medical men portrayed by Dickens. Some of the sketches are happy, Mr. Losberne, for example, and Mr. Jobling. Mr. Chillip and Dr. Slammer do not realise our ideals. But, where is Bob Sawyer and where is Sir Tumley Snuffin? It will be remembered that Bob Sawyer did not remain merely a medical student. He eventually became a medical practitioner at Bristol, where, although he was not very successful, we feel certain that he was a more reputable representative of the medical profession than the titled attendant of Mrs. Witterly. Sir Tumley Snuffin is one of Dickens's cruellest portraits, exaggerated in the twopenny-coloured way in which the characters in "Nicholas Nickleby" are exaggerated, but possessing certain features of probability.

*Science*.—There are only a few cases recorded in which it has been possible to isolate with certainty the bacillus typhosus from suspected water-supplies during epidemics of enteric fever. Further, unless the specific pollution is continuous it is extremely unlikely that typhoid bacilli will be detected in a water if more than a week has elapsed since the actual pollution occurred. Thus in the case of the typhoid fever outbreak at Maldstone, Dr. J. W. Washbourn

made a bacteriological examination of the infected water about 10 days after the specific infection had taken place but he failed to find the bacillus typhosus though the presence of bacillus coli indicated sewage contamination. It is doubtful, also, whether in the Worthing epidemic the bacillus typhosus was identified though there was no doubt again about the bacillus coli. It follows, therefore, that as time elapses since the pollution occurs it is more difficult to detect it by bacteriological processes, and this is particularly so when waters of original purity are under examination. Bacteriological examination, however, is certainly a much more delicate means than chemical analysis of diagnosing sewage contamination although it may fail to reveal the specific pathogenic organism. It is possible that if the typhoid bacillus existed in a sample of water which was declared to be chemically pure no evidence of its presence would be gained on making a bacteriological examination some days after the water had been drawn. Many experts hold the view that a water containing typhoid bacilli could not show chemical purity. In their report on the Maldstone water Mr. M. Adams and Dr. Washbourn agreed that proof of pollution of water may be obtained either from chemical or bacteriological examination. In all cases it is necessary to examine a considerable quantity of the water for the specific organism of typhoid fever. Diagnosis, it seems to us, both by bacteriological and chemical means, can only be trustworthy, strictly speaking, by systematic periodical examination, the variations in the composition and flora being the surest sign-posts of danger.

K. M. D.—The Lunacy Act mentions only "idiots, lunatics, and persons of unsound mind"—a feeble-minded person need not (and often does not) come under such designation. There is in such a case no need of a licence, but our correspondent had better get a medical opinion as to the degree of feeble-mindedness present. It may possibly amount to imbecility which would require certification, and due notice would then have to be sent to the Commissioners in Lunacy. Nothing further is required (and no licence) if only one single patient is taken. If more are taken a request for licence must be made to the Commissioners in Lunacy, 68, Victoria-street, S.W.

H. C.—Articles on Delorme's operation for empyema will be found in the following papers: Contribution de la Chirurgie de la Poitrine. Te. Congrès de Chirurgie, Paris, 1893, page 422; Traitement des Empyèmes Chroniques par la Décortication du Poumon, Congrès de Chirurgie, Paris, 1896, page 379; Traitement des Empyèmes Chroniques, Académie de Médecine, Paris, Jan. 23rd, 1894, *Semaine Médicale*, 1894, page 36; also in an article by Cestan, *Archives Générales de Médecine*, 1897; and in one by Ferrier and Raymond, *Chirurgie de la Plèvre et du Poumon*, Paris, 1899, published by Alcan.

W. A.—Our pamphlet "Difficulties under the Infectious Diseases Notification Act" explains the situation. As a general rule each informant is entitled to the fees.

X. Y. Z.—We regret to be unable to suggest an institution. There is, as yet, no accommodation of the kind for persons unable to pay, and to pay well, for it.

ERRATUM.—In our analytical notice last week of the baking powder made by the Fosco Manufacturing Co., the proprietary title of the preparation, and of the company also, should have been written Fosco and not "Phos. Co."

#### METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Stewart's Instruments.)

THE LANCET Office, Oct. 24th, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radiation in Vacuum.	Maximum Temp. in Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 a.m.
Oct. 18	29.40	SSW	0.02	67	58	53	55	57	Cloudy
" 19	29.61	S.	0.43	90	60	47	48	49	Fine
" 20	29.81	S.W.	...	85	58	44	50	50	Foggy
" 21	29.74	S.E.	...	64	54	40	42	43	Foggy
" 22	29.80	S.E.	0.01	58	54	43	47	48	Raining
" 23	30.01	W.	0.05	74	63	44	44	45	Foggy
" 24	30.14	S.W.	0.01	64	53	43	44	45	Cloudy

During the week marked copies of the following newspapers have been received:—*Wiener Medicinische Blätter*, *Leeds and Yorkshire Mercury*, *Yorkshire Post*, *Liverpool Daily Post*, *Mining Journal*, *Surrey Advertiser*, *Thrapston and Randa Journal*, *Scranton Weekly Republican (U.S.A.)*, *Daily Argus (Birmingham)*, *La Belgique Médicale*, *Coventry Reporter*, *Scientific American*, *Bristol Mercury*, *Standard*, *Optician*, *Indian Engineering*, *Montreal Medical Journal*, *Boston Medical and Surgical Journal*, *Journal of Physical Therapeutics*, *Berliner Klinische Wochenschrift*, *Building News*, *Reading Mercury* and *Oxford Gazette*, *Glasgow Daily Record*, *Windsor and Eton Express*, *Globe*, *Yorkshire Herald*, *Pall Mall Gazette*, *Allgemeine Medicinische Central-Zeitung*, *Hertfordshire Mercury*, *Canadian Practitioner and Review*, *Fitzslove Visitors List*, *Journal of Commerce*, *Hong-Kong Weekly Press*, *Jewish World*, *The Torquay Directory* and *South Devon Journal*, &c.

# Medical Diary for the ensuing Week.

## OPERATIONS.

### METROPOLITAN HOSPITALS.

**MONDAY (28th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynaecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopaedic (2 P.M.), City Orthopaedic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

**TUESDAY (29th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Bar (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**WEDNESDAY (30th).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopaedic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

**THURSDAY (31st).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynaecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**FRIDAY (1st).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**SATURDAY (2nd).**—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

## SOCIETIES.

**MONDAY (28th).**—MEDICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Paper: Dr. A. Elliott and Dr. J. W. Washbourn, C.M.G.: Typhoid Fever in South Africa. (Council Meeting Night.)

**ODONTOLOGICAL SOCIETY OF GREAT BRITAIN** (20, Hanover-square, W.).—7 P.M. Council. 8 P.M. President's Inaugural Address. Communications:—Mr. F. C. Wallis: Misplaced, Unerrupted Wisdom Tooth treated by External Operation.—Mr. J. G. Turner: The Teeth of Cetins and Microcephalics.—The President and Mr. L. Payne: Notes on the Dentition of Sphenodon.

**WEDNESDAY (30th).**—BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. General Meeting. Ordinary Meeting. Address by Dr. D. Kerr (in-coming President). Paper:—Dr. Houchin: Aix Treatment of Syphilis in London.

**THURSDAY (31st).**—NEUROLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Cases:—Dr. Ferrier: A Case of Successful Removal of Cerebellar Tumour.—Dr. Ferrier and Dr. A. Turner: A Case of Successful Removal of a Cerebral Tumour. Dr. Hutchison: A Case of Hemiplegia with Mental Deficiency in a Child.—Dr. Head: (1) A Case of Muscular Atrophy, probably of Neuritic Origin; (2) A Case for Diagnosis; (3) A Case of Wrist-drop. Dr. Muskens will demonstrate Lantern Slides illustrating the Segmental Distribution of Sensory Changes in Tabes and Epilepsy.

**FRIDAY (1st).**—WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith-road, W.).—8.30 P.M. Ordinary Meeting.

**LARYNGOLOGICAL SOCIETY OF LONDON** (20, Hanover-square, W.).—5 P.M. Cases will be shown by Mr. Spencer, Dr. Donelan, Dr. St. Clair Thomson, Mr. Westmacott, Dr. Tilley, Dr. St. George Reid, Mr. Lake, and Mr. Waggett.

**WEST KENT MEDICO-CHIRURGICAL SOCIETY** (Royal Kent Dispensary, Greenwich-road, S.E.).—8.45 P.M. Paper:—Mr. G. C. Williams: High Frequency Electrical Currents in the Treatment of Certain Diseases.

## LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

**MONDAY (28th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. M. Morris: Clinique. (Skin.)

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Ball: The Examination of the Throat and Nose.

**TUESDAY (29th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. H. Campbell: Clinique. (Medical.)

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Minor Surgery.

**NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC** (Queen-square, Bloomsbury).—3.30 P.M. Dr. Ferrier: Amyotrophic Lateral Sclerosis.

**WEDNESDAY (30th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. A. H. Tubby: Clinique. (Surgical.)

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Eccles: Surgical Anatomy.

**LONDON THROAT HOSPITAL** (204, Great Portland-street, W.).—5 P.M. Dr. Stoker: Impaired Movements of Vocal Cords. (Post-Graduate Course.)

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST** (Brompton).—4 P.M. Dr. Perkins: Pneumothorax.

**CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL** (Gray's Inn-road, W.C.).—8 P.M. Dr. D. Grant: The Examination of the Throat and Nose.

**THURSDAY (31st).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.)

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Keetley: The Operative Treatment of Fractures.

**THE HOSPITAL FOR SICK CHILDREN** (Gt. Ormond-street, W.C.).—4 P.M. Mr. Collier: Clinical Demonstration.

**CHARING-CROSS HOSPITAL.**—4 P.M. Mr. Boyd: Surgical Cases. (Post-Graduate Course.)

**LONDON TEMPERANCE HOSPITAL** (Hampstead-road, N.W.).—2 P.M. Dr. S. Fenwick: Clinical Demonstration.

**FRIDAY (1st).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. R. Lake: Clinique. (Ear.)

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Saunders: Therapeutics.

**LONDON TEMPERANCE HOSPITAL** (Hampstead-road, N.W.).—2 P.M. Dr. P. Parkinson: Clinical Demonstration.

## EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side of the paper only. AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

## MANAGER'S NOTICES.

### TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Office, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	... £1 12 6	One Year	... £1 14 8
Six Months	... 0 16 3	Six Months	... 0 17 4
Three Months	... 0 8 2	Three Months	... 0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR. CHARLES GOOD, THE LANCET Office, 423, Strand, London, W.C.

### Communications, Letters, &c., have been received from—

A.—Ardath Tobacco Co., Lond.;  
Monsieur J. Astier, Asnières;  
Messrs. Arnold and Sons, Lond.;  
Mr. J. M. Atkinson, Hong-Kong;  
A., Hetton-le-Hole.

B.—Mr. H. L. Brown, Lond.;  
Dr. D. F. Brown, Northampton;  
T. B. Browne, Ltd., Lond.;  
Messrs. Brady and Martin, New-  
castle-on-Tyne; Messrs. F. B.  
Benger and Co., Manchester;  
Mr. W. D. Betenson, Rosmead  
Junction, South Africa; Messrs.  
Burroughs, Wellcome, and Co.,  
Lond.; Mr. W. D. Baxter, Lond.;  
Messrs. R. Boyle and Son, Lond.;  
B. and M.; Dr. G. Brown, Lond.;  
Mr. H. A. Ballance, Norwich;  
Mr. R. Brazier, Oxford; Mr.  
E. M. Brockbank, Manchester;  
Mr. L. A. Bidwell, Lond.; Mr.  
C. H. Brodribb, Westminster;  
Mr. C. L. Bedford, Birmingham;  
Messrs. Baillière, Tindall, and  
Cox, Lond.; Messrs. Benrose  
and Sons, Lond.

C.—Dr. J. L. Callaghan, Coventry;  
Mr. G. A. Clarkson, Leicester;  
Mr. F. W. Collingwood, Lond.;  
Messrs. Carnrick and Co., Lond.;  
Dr. T. Colvin, Glasgow; Hon.  
Stephen Coleridge; C. C. S.;  
Cortland Wagon Co., Lond.;  
Cumberland Infirmary, Carlisle,  
Secretary of; Dr. A. Corry, Lond.;  
Dr. A. Collie, Foëcy, France;  
Chester General Infirmary,  
Secretary of; Dr. E. K. Camp-  
bell, Lond.; Dr. W. H. Crosse,  
Lond.; Mr. J. Clark, Edinburgh;  
Messrs. Cassell and Co., Lond.;  
Mr. J. Black Cameron, Lond.;  
County Asylum, Lancaster,  
Secretary of; C. A. B.; Messrs.  
J. and A. Churchill, Lond.

D.—Mr. J. Davis, Lond.; D. W.;  
Mr. T. Dixon, Lond.; Mr. E.  
Darke, Lond.; Dumfries and  
Galloway Royal Infirmary, Treas-  
urer of; Dr. T. Duka, Lond.;  
Mr. S. Davey, Lond.

E.—Mr. W. Elworthy, Lond.;  
Examination Hall, Lond., Secre-  
tary of; B. E. S.; E. J. P.;  
E. J. D.

F.—Mr. L. Franklin, Southwick;  
Dr. A. C. Farquharson, Bishop  
Auckland.

G.—Dr. W. A. Gibb, Ipswich; Dr.  
M. Greenwood, Lond.; Mr. E.  
Gooch, Lond.; Dr. J. Galloway,  
Lond.; Surgeon H. W. Gordon  
Green, R.N., Channel Squadron;  
Great Eastern Railway Co., Lond.,  
Continental Traffic Manager of;  
Sir W. R. Gowers, Lond.;  
Dr. G. M. Gould, Philadelphia;  
Grimsby and District Hospital,  
Secretary of.

H.—Dr. Bernard Holländer, Lond.;  
Mr. J. Hawkes; Dr. J. W.  
Hamill, Higher Broughton;

Messrs. Hirschfeld Bros., Lond.;  
*The Home Magazine*, New York;  
Editor of; Mr. C. Huish, Lond.;  
Dr. S. H. Habershon, Lond.;  
Hornsey Urban District Council,  
Clerk of; Dr. H.

J.—Mr. G. Jackson, Lond.; J. P. P.;  
J. R. T.

K.—Mr. E. D. Kirby, Birmingham;  
Mr. W. G. Kirby, Lond.; *Kentish  
Gazette*, Canterbury.

L.—Dr. O. Lodge, Birmingham;  
Mr. J. B. Lamb, Lond.; Messrs.  
Liddle and Johnston, Edinburgh;  
Mr. R. M. Littler, Southport;  
*Leather Trades' Review*; Dr.  
W. H. Lowman, Wimborne.

M.—Mr. J. C. McWalter, Dublin;  
Medical Graduates' College and  
Polyclinic, Lond.; Monkwear-  
mouth, &c., Hospital, Sunder-  
land, Secretary of; Mellin's Food,  
Ltd., Lond.; Dr. H. McLaren,  
Glasgow; Mr. J. McMurtrie,  
Glasgow; Medicus, Manchester;  
Male Nurses' Association, Lond.;  
Maltine Manufacturing Co.,  
Lond.

N.—Mr. J. L. C. Newman, Nor-  
wich; Mr. W. E. C. Nourse,  
Torquay; Mr. J. C. Needes,  
Lond.; Mr. H. Needes, Lond.

P.—Dr. T. W. Parry, Youlgreave;  
Professor J. Bell Pettigrew, St.  
Andrews; Protene Co., Lond.;  
Mr. Y. J. Pentland, Edinburgh;  
Prideaux's Pure Casein and Life  
Food Co., Motcombe; Messrs.  
Peacock and Hadley, Lond.;  
Messrs. Parke, Davis, and Co.,  
Lond.; Messrs. Parkins and  
Gotto, Lond.; Mr. F. E. Potter,  
Lond.

R.—Dr. G. H. Rodman, Lond.;  
Mr. F. G. A. Rogers, Cardiff;  
Mr. Rowland, Lond.; R. A. D.;  
Royal Cornwall Infirmary, Truro,  
Secretary of; Dr. M. P. Ravenal,  
Philadelphia, U.S.A.

S.—Sir Felix Semon; S. N.;  
Mr. J. Stretton, Kidderminster;  
Messrs. Swan, Sonnenschein and  
Co., Lond.; Dr. F. Shuffe-  
botham, Newcastle-under-Lyne;  
Messrs. Street and Co., Lond.;  
Sanitary Institute, Lond., Secre-  
tary of; Mr. E. Swindells, Lond.;  
Mr. A. Sanders, Lond.; Mr. C. C.  
Smith, York; Mr. C. F. Schenk,  
Lond.; Salford Royal Hospital;  
Mr. J. Sumpter, Lutterworth;  
Scholastic, Clerical, &c., Associa-  
tion, Lond.; Mr. M. Sells, Lond.;  
Mr. N. Smart, Folkestone; Mr.  
H. M. Snow, Lond.

T.—Dr. St. Clair Thomson, Lond.;  
Dr. W. H. Thompson, Belfast;  
Mr. W. Tallack, Lond.; Mrs. A.  
Thacker, Tunbridge Wells; Dr.  
Bezly Thorne, Lond.

V.—Messrs. J. H. Vail and Co.,  
New York; Vinolia Co., Lond.

W.—Dr. Tucker Wise, Montreux;  
Dr. E. W. Ainley Walker, Witney;  
Messrs. J. Wright and Co.,  
Bristol; Wills, Ltd., Lond.;  
Western General Dispensary,  
Lond., Hon. Secretary of; W. G.;  
Mr. H. B. Wilkinson, Bilton;

Mr. W. F. A. Woodcock, Liver-  
pool; Dr. J. K. Watson, Wiest  
Hydeet.

X.—X. Y. Z., Sheffield Park.  
Y.—Dr. E. S. Yonge, Manchester;  
Miss L. Young, Lond.

### Letters, each with enclosure, are also acknowledged from—

A.—Dr. A. G. Auld, Lond.; Miss  
Althaus, Lond.; Alpha, Liver-  
pool; A. D. T.

B.—Dr. J. Braithwaite, Leeds;  
Mr. C. Birchall, Liverpool;  
Mr. F. E. Bennett, Margate;  
Mr. T. B. Brittan, Babbacombe;  
Mr. W. G. Burcombe, Lincoln;  
Messrs. Benson and Co., Lond.;  
Mr. H. R. H. Bigg, Lond.; Dr.  
W. Burns, Ayr; Mr. H. Brice,  
jun., Exeter; Dr. G. F. Bland-  
ford, Lond.; Dr. A. B. Blair,  
Banwell; Dr. E. T. Born, Deep-  
car; Mr. B. Badcock, Staveley;  
Mr. J. H. Breach, Yattendon;  
Bourne Castle Sanatorium, Bel-  
broughton, Secretary of; Dr.  
L. Bruce, Murthly.

C.—Mr. J. B. Cox, King's Lynn;  
Messrs. W. P. and W. Cox,  
Leicester; C. J. C., Kirby  
Muxloe; College of Preceptors,  
Lond., Secretary of; C. S. P.

D.—Mr. F. Davidson, Lond.; Mr.  
R. A. Delaney, Bexhill-on-Sea;  
Messrs. Dowle and Marshall,  
Lond.; D. S. H.; Messrs. A. de  
St. Dalmas and Co., Leicester;  
Dr. T. Dewar, Hetton-le-Hole;  
Messrs. H. Dawson and Co.,  
Lond.; D. M.; D. C.

E.—Mr. H. B. Ellerton, Snetton;  
Ernest, Oxford; E. A. T.;  
E. J. M.; Mr. A. Evans, Chard;  
Mr. G. W. Ellis, Bishop Auck-  
land; Dr. E. Elsmere, Hursley;  
Mr. E. A. Edington, Aberdare;  
E. E. R.; Elston Press, Ltd.,  
Lond.

F.—Mr. G. Forden, Berkeley;  
Messrs. A. W. Forsaith and Co.,  
Lond.; F. A. G.; F. A. M.; Fosco  
Manufacturing Co., Liverpool;  
Miss L. Forster, Bristol; F. A.

G.—Dr. E. M. Griffith, Cwmearn;  
Dr. F. S. Gramshaw, Stillin-  
ton; G. W.; G. M.; Mrs. Good-  
man, Lond.

H.—Mr. J. D. Hadden, Lond.;  
Dr. W. N. Houghton, Coventry;  
Dr. V. Harley, Lond.; H. S. B.;  
Mr. T. C. Hine, Dalkey; H. P.;  
Mr. J. Heywood, Manchester;  
Messrs. Hastings Bros., Lond.;  
Dr. J. Holmes, Whitefield; Dr.  
L. Harris-Liston, Digbys; Mrs.  
Hilliard, Alresford; H. C. D.;  
Mr. N. Hutchison, Lond.; H. M.;  
Mr. M. Hall, Hemel Hempstead;  
Messrs. J. Hadton and Co., Lond.;  
Mr. D. Heron, Ballynahinch;  
H. E. G.

I.—International Plasmon, Lond.;

*Indian Medical Record*, Cal-  
cutta, Manager of.

J.—J. F. P.; J. S. H.; J. S.  
L.—Mr. E. J. Ling, Rotherham;  
Dr. G. Levick, Havant; Mr. L.;  
London Association of Nurses,  
Secretary of; Dr. L. Liebster,  
Lond.; L.R.C.P., Bristol; Leeds  
General Infirmary, Secretary of.

M.—Mr. A. R. MacGregor, Wood-  
hall Spa; Mr. H. Marsh, Lond.;  
Manchester Medical Agency,  
Secretary of; M.B., London;  
Dr. D. Macdougall, Greenock;  
Dr. D. W. K. Moody, Montrose;  
Mr. Milne, Greenock.

N.—Norfolk and Norwich Hospital,  
Secretary of; Northern Medical  
Association, Glasgow; Notting-  
ham General Infirmary.

O.—Mr. E. Owen, Lond.

P.—Mr. J. P. Pointon, Birkdale;  
P. M. I. T.; P. S.

R.—Mr. A. L. Rozelaar, Lond.;  
Messrs. Reid and Donald, Perth;  
R. O.; Dr. R.; R. W. J.; Messrs.  
Richardson Bros. and Co., Liver-  
pool; W. G. Roland, News  
Agency, Reading, U.S.A.; R. D.;  
Rotherham Hospital, Secretary of;  
Miss Rynes, St. Albans.

S.—Dr. A. W. Scott, Woodhouse;  
Mr. J. H. Spreat, Llantwit Major;  
Dr. C. S. de Segundo, Lond.;  
Messrs. H. C. Seales and Co.,  
Lond.; Dr. H. Snow, Lond.;  
Surgeon, Liverpool; S. W. B.;  
Messrs. Spiers and Pond, Lond.;  
Mr. A. B. Sturges, Aberystwyth;  
Mrs. Skinner, Winchelsea; Mr.  
D. Spillane, Lond.

T.—Mrs. Theobald, Leicester; Mr.  
T. Thompson, Whalley Range;  
Dr. C. B. Taylor, Nottingham;  
Dr. H. Tilley, Lond.; T. A. L.;  
Messrs. C. Tayler and Co., Lond.;  
T. H.

U.—Union Assurance Society,  
Lond.

V.—Mr. S. Verity, Garndiffaith;  
Mr. G. Vogt, Kendal; Mr. W.  
Van Praagh, Lond.

W.—Dr. J. H. Waterhouse, Maltby;  
Warneford Asylum, Oxford,  
Secretary of; W. S. W.; Walker-  
Gordon Laboratory Co., Lond.;  
*Wills County Mirror*, Salisbury;  
Mr. R. M. Wright, Burwell;  
Messrs. H. Wilson and Son,  
Lond.; W. D.; W. G.; W. S. R.;  
Mr. S. Wand, Leicester; Messrs.  
Whitbread and Co., Lond.; Miss  
Walton, Bristol.

Z.—Messrs. A. and M. Zimmer-  
mann, Lond.

EVERY FRIDAY.

# THE LANCET.

PRICE SEVENPENCE.

### SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.  
One Year ... .. £1 12 6  
Six Months ... .. 0 16 3  
Three Months ... .. 0 8 2

TO THE COLONIES AND ABROAD.  
One Year ... .. £1 14 8  
Six Months ... .. 0 17 4  
Three Months ... .. 0 8 8

Subscriptions (which may commence at any time) are payable in advance.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an additional advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance. Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

### ADVERTISING.

Books and Publications	Seven Lines and under £0	5	0
Official and General Announcements	Ditto	0	5
Trade and Miscellaneous Advertisements	Ditto	0	4
	Every additional Line	0	6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.  
Terms for Position Pages and Serial Insertions on application.

# A GENTLE HINT.

## Pirates.

In a spasmodic way they appear now and then on the scene. They make bungling work of it. They copy what they think will do them most good, and not one of them has had the manliness to as much as say—"By your leave, sir." They



A Pirate of ye  
Olden Time—called  
a Knave  
in those days.

copy our advertisements, or the "Titles" we originate, to make people believe that theirs are ours; they have used our trade names which we have made popular and valuable by expenditure and work; they denounce the improvements we introduce, until, in spite of their underhanded manoeuvres, we secure the just appreciation of the profession, and then they make imitations of our products in appearance, though not in quality; and in divers ways

seek to deceive the profession and steal our thunder.

To us it appears truly humorous that amongst them firms whose antiquity is their prime boast, and whose traditions harp upon the integrity of ancestral founders, should play such catch-penny antics. Having won by genuine merit and originality the confidence of the profession and trade, we can, so far as we ourselves are concerned, regard these puny pirates with contempt, but it is our duty to protect our friends.

When the lame man made a bargain with the blind man for the latter to carry him, they were neither of them in business worth mentioning, and the bargain was mutually advantageous; but for one who might both walk and see to saddle himself on to another is not delicate, to say the least. We feel that we can see and walk, and when those who might do the same try to ride on our industry it seems our bounden duty to point out to them how unbecoming their conduct really is.

We have become more or less used to imitators, and when the thing is done right handsomely it almost seems like a compliment; but to be a compliment it should certainly be free from the semblance of fraud. "Me too" has ever been the motto of trade pirates, and of those who have lost their grip, and of those who never deserved.

For the edification and comfort of our imitating neighbours we offer an allegory—it is a very ripe "chestnut," but a sound one, and here it is. Once upon a time—not so very long ago—as the story goes, a company of soldiers was garrisoned in mountain wilds where there were Indians on the war-path. One day a tribe of the Red Men were spied in a valley, and the troops were forthwith ordered out in great haste. They strapped a cannon on the back of a mule, and hastened away to give battle. When they reached the crest of a cliff they saw the war-dancers in the valley below.

They had no time to dismount the cannon, so turned the

mule about as a gun-carriage, and fired. The howitzer "kicked" so tremendously that it knocked the animal off his legs, and cannon and mule rolled precipitately down the mountain into the midst of the Indians, frightening them nearly out of their wits, and they beat a hasty retreat—all but one, who was so paralysed with fear that he allowed himself to be captured and taken to the camp. When interrogated as to why he allowed himself to be taken, he exclaimed—"Me no 'fraid soldier man, me no 'fraid cavalry man, but when live jackasses fired me, me think the devil must be near."

Though we do not confess that we are timid, the Indian's case is in some respects like our own. Legitimate business warfare may be engaged in with satisfaction, and we heartily applaud all new improvements and legitimate enterprises from whatever source they come; but who could desire to have trade "jackasses" precipitated upon them as competitors?

Now, Imitators, we enjoin upon you to discard your schoolboy mimicries. We don't expect much of you.

Still, "Be not too bold!" "Assume a virtue if you have it not." When you want a new name for one of your products (or imitations) give it a name that does not deceive. Give it a name that has not been made valuable by others' expenditure and industry.

Give it a name that, when you make your sales, you can say to yourselves—"These do not rightfully belong to another." What is it to appropriate a trade name but to take what another has laboured for and that may become in all equity his means of subsistence.



He Would Gather Other Men's Fruit.

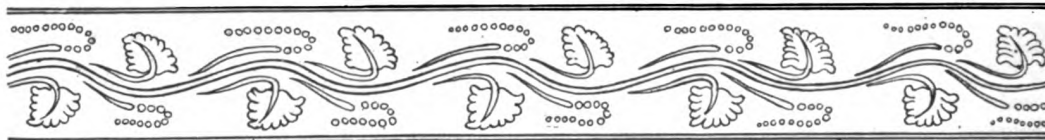
Sales thus made are dearly bought. We would suggest that those whose enfeebled intellects prevent them from creating anything original, and who find it necessary to copy the titles of our articles or advertisements, might consult a dictionary—there are upwards of 60,000 English words to choose from.

The substitution of a stone when asked for bread, was one of the earliest arts of knavery; but this never won faith or honour. The modern substituter of crude medicines to increase his profits shrinks not from injuring both physician and patient.

Those who have, through inadvertence, trespassed upon our rights, and who have made the *amende honorable* when we have called their attention to the trespass, we acquit of all wrong intent, and can but respect their frankness and honesty of purpose. Everyone is liable to tread unwittingly upon the rights of his fellow-men, but an honest man is ready to admit his fault and relieve his conscience. Wilful trespassers, who persist in wronging us, and thereby render themselves liable under the law, we have punished and shall punish with the utmost severity. Those who wilfully trespass upon our rights, but cunningly evade the liabilities of the law, we shall expose to the ignominy they so justly deserve.

BURROUGHS WELLCOME & Co.

LONDON and SYDNEY.



## 'KEPLER' SOLUTION

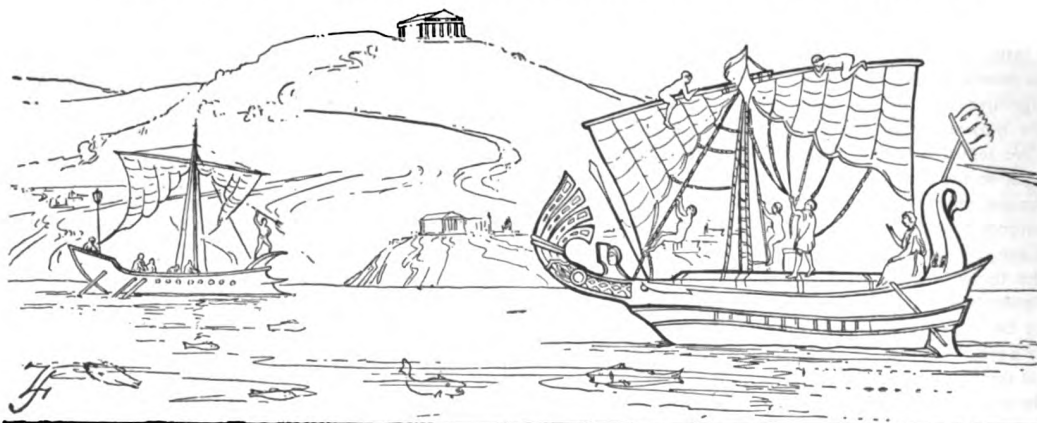
Of the finest Norwegian Cod Liver Oil in 'Kepler' Malt Extract, contains the richest force-producing and tissue-forming elements known. Extremely palatable, easily digested, and readily assimilated, 'Kepler' Solution has long been recognised by the medical profession as a standard product.

"Its superiority as a therapeutic agent is obvious."—*The Lancet*.

*AVOID CHEAP AND WORTHLESS IMITATIONS. They disappoint the physician and harm the patient. Always insist on obtaining the genuine 'KEPLER' PRODUCT.*

*'Kepler' Solution is supplied to the medical profession in small and large bottles at 1s. 8d. and 3s. per bottle.*

Burroughs Wellcome and Co., LONDON and SYDNEY.



*On their return from a successful expedition it was customary with the fishermen of ancient Greece to offer sacrifices to Poseidon:—*

"Then did a whistling wind begin to rise,  
And swiftly flew we through the fishy skies,  
Till to Geræstus we in night were brought,

Where, through the broad sea since we safe had wrought,  
At Poseidon's altars many solid thighs  
Of slaughtered bulls we burn'd for sacrifice."

A Lecture  
OR

METALLIC POISONING.

*Delivered at the National Hospital for the Paralysed and Epileptic, Queen-square, W.C., on Oct. 22nd, 1901,*

BY SIR W. R. GOWERS, M.D. LOND., F.R.S.,  
PHYSICIAN TO THE HOSPITAL; CONSULTING PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL.

GENTLEMEN,—Metallic poisoning has occupied a considerable amount of public attention during the last year. The epidemic of arsenical poisoning caused by the contamination of beer and the consternation it produced will be fresh in your minds. Many of you may also have noted the efforts which have been made to lessen the amount of lead-poisoning incidental to the process of glazing pottery and the difficulty there is in practical prevention. Such cases of lead-poisoning as occur in trades appeal to the public by their concentration and by the apparent possibility of their prevention. But that which occurs in such industries is but a trifling proportion of the whole amount in the kingdom, most of which occurs among those who are engaged in the work of renewing for us the freshness and fairness of our habitations—the house-painters.

Here, for your observation, are two patients suffering from the effects of lead on the nervous system and I wish to avail myself of their presence to impress upon you some facts regarding metallic poisoning. Some of them they illustrate, others they do not. Both patients exemplify the fact I have just mentioned—both are house-painters. One presents the characteristic effect of the disease—wrist-drop and paralysis of the extensors in the fore-arms—and the other does not. I think I may assume that you are familiar with the features of this paralysis and I need not describe them in detail. Some points will come before us presently. But the case to which I would first and specially direct your attention is that of the patient who has no paralysis. He can move his hands freely and well. He is suffering from various symptoms of feebleness of the nervous system. He is weak generally, although, as you see, he is fairly nourished. He can only walk with difficulty, but there is some cause for this, as we shall see. He complains of numbness at times in the right foot and left thigh. He has had much headache, and when he holds his hands out they present fine tremor, to which we must return. His difficulty in walking is partly due to an injury long ago. In 1888 he sprained his right ankle so severely as to be in the Bristol Royal Infirmary for four months. Some weeks after his discharge he injured the instep on the same side. The injury seems to have led to disease, because he returned to the infirmary and some bone was removed. Contraction in the calf must have followed, for the Achilles tendon had afterwards to be divided. Subsequently a toe was removed—why we do not know. He slowly recovered and was able after a time to resume work, but after working for some time he again lost strength and his left leg became thin. His weakness culminated in an attack of colic. This was six years ago; only after long abstinence from work did he gain enough strength to resume it, with, after a time, a similar result. After another attack of colic a year ago he was so much more feeble that he had to give up and has not worked since. During the last year he has suffered also from much headache and from the trembling of the hands. The weakness of the legs has also become so much worse that he was only able to walk with crutches until he came into the hospital seven weeks ago. Yet apart from the tremor there is little that is objective to correspond to his disability. His knee-jerks are rather active, but he presents no foot-clonus. His left leg is thin and his foot shows traces of the operations he has undergone. His muscular strength is small and movements are rather jerky and not sustained. When I first saw him he had been carefully examined and notes had been taken. I was told that it seemed to be a case of "simple neurasthenia." I looked casually at the bed-card and at once my eye was caught by the record of his occupation, "Painter." I looked from the bed-card to his gums and there I saw written in equally distinct characters

No. 4079.

the record of the effect of his occupation in a conspicuous lead-line. Further inquiry elicited the fact of the two attacks of lead-colic which I have mentioned, one six years ago and one a year since, but also that he had never suffered from any degree of wrist-drop.

Let me interrupt my special subject for a moment. The history of the word "neurasthenia" is noteworthy. It is a contribution to medical nomenclature which we owe to our Transatlantic brethren, and it attained universal use with the utmost celerity. The concise and concrete character of the word gives it a satisfying definiteness. This depends to a large extent on its classical and somewhat graceful sound. Not only is it graceful to the ear, but it is grateful to the mind of the patient who suffers and longs to know from what, who longs to have a name for that which he, or more often she, feels must be a more definite malady than is suggested by the common-place designation of "nervous weakness." How far the practical utility, which, if low, is definite, has influenced its use I cannot say. But its use has extended far beyond the needs of the patient, and indeed did so from the first. It has firmly established itself in current clinical terminology. But it often tends to be too satisfying. Men are apt to rest on it as they would not on its English equivalent. If they do not actually think that they have found the malady from which the patient is suffering, an influence is exerted on them in that direction of which they are unconscious, which lessens the tendency to go further in the search for the whole morbid state. Words are our servants, but they often exert a very masterly influence upon us, none the less effective because we are not conscious of it. They have also their own vitality, feeble or vigorous, and we have little power to influence their career. This fact has come distinctly within my own experience. I have to confess to the authorship of two words. One, "myotatic," was always a puny infant, and I doubt whether it still maintains an independent existence. The other, "knee-jerk," instantly attained universal use, and, indeed, I think has seemed to most persons to have sprung spontaneously from the thing itself, without suggestion—perhaps the greatest compliment a word can pay. But the general use at once achieved by "neurasthenia" was in spite of a strong objection to it which was felt by many. The Royal College of Physicians of London could not include it in their "Nomenclature of Disease," and yet it is now one of the most common of medical words in every language. It would be instructive in more than one way to have a careful study of the forces which have influenced its career, but that I cannot attempt. We must, I think, admit that not only is it a satisfying word to those who suffer, but it has a certain convenience which has almost compelled many to employ it who at first objected. If I may be pardoned for a partial paradox, its convenience is not the less real because this rests on features that are illusory. Remember that the word is a name which should have little meaning, even to those who use it. You may employ it to collect the symptoms of the case under a general designation, but do not let it cover them as a cloak.

When we had ascertained the facts I have mentioned it was impossible to doubt that the patient was the subject of lead-poisoning or that his symptoms of nervous weakness had the same origin. They had developed after he had passed from the hands of the surgeons and had gained strength enough to resume work. On each occasion it was after he had been at work for some time that he began to fail, lost strength, and suffered from the symptoms you have heard, and each relapse was attended by the colic which demonstrated the action of the toxic influence to which his work exposed him, and emphasised the relation of the renewed weakness to this influence. That this influence is the effective cause of his symptoms, little as they would themselves suggest it, is shown by his history, and it is confirmed in an instructive way by careful observation of his state, especially of two features. The tremor he presents, which I will ask you to note carefully when I have done, is a fine tremor which occurs only on movement, but it differs from the tremor so often seen in hysterical and nervous persons. That is a general irregular movement of the hand and fingers. Here you will observe that there is a quick lateral movement of the fingers, the result of contractions in the interossei. This is a peculiar and unusual feature, suggesting a special cause. Tremor is well known to be a result of lead-poisoning, and you know that it is a characteristic effect of the toxic influence of another metal—mercury. The second indication that he is still suffering

from the influence of lead on the nervous system is very curious. It has been before observed, at least in Germany, but opportunities for detecting it are rare and are still more rarely utilised. You are familiar with the wrist-drop, which is a common effect of lead, the atrophic paralysis of the extensor muscles in the forearm. A good example of it is presented by the second patient before you. Such wrist-drop is due to neuritis and is accompanied by the characteristic "reaction of degeneration" to electricity—loss of faradaic and increase of voltaic irritability, and to the latter a change in polar response. In health, contraction occurs to a weaker current with the kathode, the negative pole, than with the anode, the positive pole. In the reaction of degeneration this order is reversed, the contraction occurs more readily with the anode. In this patient we found this polar change in all the muscles that would be affected in wrist-drop and in no others, although it was the only change in reaction that could be detected. All the other muscles of his limbs, including those of the legs, presented the normal order of response. I am sorry—I was going to say—that you cannot see this. He has improved so much during the last few weeks that on one side the order of polar response has become normal, and on the other side is on the way to be so, for the response is now equal to each pole. When he came in the lead in his system must have exerted a definite influence on the nerve-endings in these muscles: he must have been on the verge of wrist-drop. This condition thus affords us additional evidence of the present action of lead on his nervous system.

My object in showing you this case is that it may impress on you the great variety of symptoms to which lead may give rise and the importance of not overlooking the cause in consequence of the equivocal character of the effects. The variety of disturbance of the nervous system which lead may produce is very great. Indeed, you might be prepared for this when you remember how wide and severe are the effects of acute lead-poisoning, how gravely the brain itself suffers in some cases, manifested by what is called "saturnine encephalopathy," often attended by optic neuritis. In more chronic cases the symptoms seem to depend on the momentum with which the poison acts and on the predisposition which the individual possesses. Let me enumerate those derangements which I remember to have met with. Lead may cause not only the common peripheral neuritis but a slower chronic atrophy of the muscles, seen first in the interossei; it is precisely like spinal atrophy, and probably such, but differing in that it does not progress if its cause ceases to act, although it is far more enduring than the wrist-drop; it may be permanent, though it does not increase. Lead may cause some forms of sclerosis of the cord, usually slight in degree; it may cause optic nerve-atrophy; and many forms of functional disorder may result from it. It may cause tremor, as you see in this patient; chronic convulsions, like those of epilepsy; and hysteria, with its varied manifestations, in predisposed subjects. Neuralgia, sometimes of great severity, may be due to it, and headache is a frequent effect, as well as the symptoms of general nervous weakness. In all such cases, in which there is nothing in the symptoms to suggest the cause, this may escape you, unless you are put upon its track either by the occurrence of other associated cases of lead-poisoning, by the occupation of the patient, or by the presence of its great sign, the lead-line on the gums. Let me dwell briefly on the line, because thereon hangs one of my lessons. It is typical in proportion as it approaches Euclid's definition of length without breadth, always provided it is black. It is said to be blue, but I have never myself been able to see any colour in it. It is not always to be seen and often it is not to be seen readily. You know, or should know, the reason why it may be absent even in the most pronounced cases. It is the edge of the deposit of sulphide of lead beneath the inner surface of the gum, where this is separated from the teeth even in a very slight degree. The sulphur comes from albuminous substances which decompose there. Sometimes you see a similar deposit in the mucous membrane of the lower lip, when there is tartar on the teeth with which it comes in contact. Tartar contains organic substance mixed with earthy salts from the saliva and it yields enough sulphur to act on the lead. We have not this deposit in the patients here to-day. But I should like you afterwards carefully to compare the line which is present in each. In the first it is conspicuous, but it is not continuous; it is in separate pieces, where the gums are more detached. The second patient has always been particular

about his teeth and careful about cleanliness—hence the detachment of the gums is slight; and although the line is present everywhere it is extremely narrow and only seen on looking closely. Indeed, it was altogether missed at first. When looking for a lead-line use your ophthalmoscope lens, which I presume you are never without. Careful as this patient has always been, he must have gradually accumulated lead in his system, but his final breakdown, with the wrist-drop which you see, he attributes to a cause which it is well to note. He ascribes it, apparently with reason, to the work of painting some ceilings. In this work the man who paints has to stand below that which he is painting, and it is impossible for him to avoid inhaling some of the spray which his brush necessarily throws off—spray which may be loaded with lead. It must be the most perilous form of painting. I wish that the rich who indulge in the luxury of painted ceilings knew at what price it has to be paid for, not by them, but by those who produce the special beauty they desire. I think that house decorators ought to make the fact known to those who ask for this superfluity, for such it certainly is.

But I have not quite done with the lead-line. Far more common than the rare cases in which it is quite absent are those in which it exists only in fragments, often much smaller and fewer than in this patient. It may be at only two or three isolated spots or on the tips of the projections of gum between the teeth. It can then only be found by a most careful and thorough search on the upper jaw as well as the lower. But remember that the smallest fragment, if distinct, is as significant as the most extensive deposit. A year or two ago a patient came to me from the other side of the world and said that he was suffering from muscular wasting. I found considerable atrophy of the muscles of the forearms, but it was of the muscles that suffer in lead-poisoning, with characteristic wrist-drop as its result. No others were affected. They had lost faradaic irritability and presented very little voltaic irritability, but this is common after a time in such cases if voltaic electricity has not been applied. The excitability to voltaism quickly improves in this state after a short course of treatment with it. The onset had been subacute, just as it commonly is from lead. Of course, I at once examined his gums. At first sight they seemed normal, but on more thorough inspection, and especially on examining the gums of the upper jaw, several spots were found at which there was a slight separation from the teeth, and there I found two or three indubitable fragments of lead-line. I afterwards also found some black points at the ends of the projections between the teeth of the lower jaw. I could ascertain no source for the poisoning. The patient was a grocer, but had not for years been accustomed to handle the lead-paper by which tea is protected. Still, I could not doubt that he was suffering from simple lead-palsy, and I therefore felt justified in giving him a very hopeful opinion, a prospect of steady although slow improvement under treatment. The forecast was entirely justified. He went home in a year's time almost well. But I should not have spoken so strongly had I known what he afterwards told me. After I had expressed my opinion he said that he had been sent to England as a sort of forlorn hope. He had been told that he was suffering from progressive muscular atrophy which nothing was likely to arrest. His own words were that he started under what he "felt to be a sentence of death." Perhaps he exaggerated. It is always well to remember the advice once given by a wise physician: "Never believe anything a patient says that another doctor said." But if he had told me this before, I should have been less emphatic. I should have given him some hope and should have allowed this to be gradually augmented by his experience. It is always desirable to avoid expressing a difference of opinion more strongly than is absolutely necessary. And I heard of it again. But I cannot doubt that the cause of the palsy might have been discovered by a sufficiently minute search, and it is to impress the importance of this upon you that I tell you of the case. It is an illustration of one of the wise sayings which the late Sir William Jenner was wont, I might almost say, to stick into the minds of his pupils, "More mistakes are made, many more, by not looking than by not knowing."

But there is one last resort for the detection of this cause of palsy. If the symptoms are such as to suggest lead, and you are sure that there is no trace of lead-line in any part of the gums, you may feel confident that it is not at work, provided the state of the gums certainly is such as to give rise to it. If the gums are everywhere perfect you cannot feel thus

sure. I have seen saturnine wrist-drop without a trace of line, but there was no room for doubt; the case was one of the many which occurred in Sheffield in consequence of the solvent power of the peaty water upon leaden pipes. Yet we have a source of information. If the case is seen early its nature may be decided by an analysis of the urine, especially after iodide of potassium has been given for a few days. It is a rather troublesome process, needing a large quantity of urine, but it may be decisive. I remember employing it in one case of wrist-drop perfectly like that of lead in distribution, course, and character. The result was negative, and its negation proved only too trustworthy; the extensor palsy was followed by a wasting elsewhere and general rapid progressive muscular atrophy.

I mentioned arsenic as another metallic poisoning which has loomed large in the public and professional eye. The extensive epidemic of arsenic-poisoning in the north has had at least one good result—a vast increase in the general professional knowledge of the subject, so that the facts which were previously familiar to a few are now known to all. But it may still not be quite useless for me to impress on you the need for fixing its signs on your mind, ready for revival, because the need for the knowledge may come when you least expect it. Like lead, it causes neuritis, but arsenical neuritis usually affects the legs before the arms. Moreover, its effects on the nerves vary much; the common palsy may be absent, and the sensory nerves may suffer much or most, and hence the symptoms may be equivocal and even misleading—sometimes, indeed, they may be identical with those of tabes.

Just as the line on the gums is the indication of lead, changes in the skin, especially certain forms of pigmentation, constitute the outward and visible sign of the influence of arsenic, visible at least if you look for them, and a sign if you know what they are like. They have been abundantly described, not only by Dr. E. S. Reynolds of Manchester, to whose perception of their significance we owe the discovery of the cause of the epidemic, but especially by Dr. H. G. Brooke and Dr. Leslie Roberts who have published a very full account of them and their pathology in the *British Journal of Dermatology* for April last. I only propose to mention some salient points regarding the pigmentation. Other changes are also common, especially the thickening of the skin of the palms and soles, but the pigmentation is that which is likely, as a rule, to attract attention, and is of most practical importance. Moreover, this Hospital is the only place at which you are at all likely to become practically acquainted with it. Arsenic alone enables us to prevent or lessen the troublesome eruption which bromide causes, and few patients who take the combination for more than two years escape pigmentation. In one case I was able to discern the precise amount which had been effective. The darkening of the skin was first distinct when the patient had taken liquor arsenicalis for two years in uniform quantities, and the total was 104 grains of arsenious acid, or two grains weekly. Doubtless slight signs of it would have been discerned sooner. But I think that if you look at the neck of many old cases of epilepsy attending here, you will meet with an example before long. The change is most marked on the skin of the trunk, front and back, but it extends to the limbs and also to the neck, where indications of it may be detected with least inconvenience. Given with bromide, arsenic has very little tendency to act upon the nerves, even when a sufficient amount has been taken to cause extreme pigmentation. I have a strong impression that it is most readily produced in those who are most prone to the bromide acne, but the impression must of necessity remain such, because the disposition to the acne leads to the administration of larger doses of arsenic.

Whether or not you are able to become acquainted with the aspect of the skin that is due to arsenic, it may serve you in good stead if you remember its occurrence and certain leading features. The brown pigmentation begins as small spots, which may commence, as I have seen, in spots of congestive redness, and the brown tint succeeds the red. These dark spots sometimes exist alone, more often they are seen chiefly on the outer portions of the most pigmented regions, where the tint is more uniform. The uniformity may be due to coalescence of the spots, but sometimes this diffuse colouration seems the first thing. The tint is that which is called sepia, a warm sepia or cold sepia, according to its duration, to use the terms employed by artists. It is not so dark as the pigmentation of Addison's disease and has not the same distribution. Although it is more marked

at places at which there has been pressure, it occurs irrespectively of this and is greatest on the parts of the trunk least affected in Addison's disease. When the small discrete spots coalesce they often leave small areas which are unpigmented and which have a pearly whiteness. Three weeks ago I saw a patient whose skin over the whole trunk was of a deep mahogany colour from this cause, with such white spots scattered over it. He was so prone to the bromide rash that even the dose of arsenic he was taking (seven minims with 25 grains of bromide twice a day) did not suffice to keep him entirely free. But he had been free from fits for 16 months and his parents would not hear of a reduction in either the bromide or the arsenic. The darkening of the skin, they said, was quite unimportant, and that is the common opinion of those who present it when they know its cause. I have constantly to explain to patients its origin and to give them the choice between the bromide spots and the darkening of the skin; there is never hesitation in choosing the latter. The white spots I have mentioned are common and somewhat characteristic, although they are met with in other forms of pigmentation. They have been called "rain-washed" spots from their scattered distribution, but their whiteness suggests a more potent agency than simple washing. I believe that their pearly whiteness is not the effect of contrast alone but that they are actually paler than the normal skin. Why such areas should not only resist the pigmentation but should apparently lose what they possessed, is a mystery which the pathologists have not, I think, explained. But we may note that there seems to be a curious solidarity in these pigmentary processes, in consequence of which excess may entail adjacent deficiency and, I may add, a deficiency may be attended by adjacent excess.

Perhaps you will allow me to digress for a moment to mention to you a very remarkable illustration of the latter fact—increased pigmentation in the vicinity of its diminution. I have described the case elsewhere, but it will probably be new to you. It is that of a man who had traumatic meningeal hæmorrhage over the left hemisphere. As a result of this, during the three days he lived after the injury, the right, opposite half of his brown moustache and beard became blanched so as to be almost white. The hair of the scalp was not affected. The change was watched during life and carefully noted after death. It was like that which has been described as the result of profound emotion, but it was due here to a physical agency. It can only be explained by assuming that the disordered innervation so changed the secretion at the roots of the hair as to produce a material capable of ascending the hairs and discharging their pigment. But after death we noticed another thing, which leads me to mention the case. The very grey, almost white, right half was separated from the natural brown left half by a narrow vertical line, or narrow zone, in the middle line, in which the hair had become almost black. Apparently where the disordered influence ceased in its extreme degree, at the blending of the innervation of the two sides, a change in the pigmentary process had occurred of the opposite character. Mysterious as the fact is, and perhaps impossible to explain, it illustrates the close relation between the *plus* and the *minus* in pigmentary processes. I am not sure that we may not find another illustration of this in some cases of atrophy of the pigment of the choroid adjacent to a spot at which it is collected, and also in the heaping up of pigment in association with areas of atrophy. But this may have another explanation.

To return to my proper subject. I desire especially to fix in your mind the fact of the occurrence of this characteristic pigmentation. Whether or not you are able to become actually acquainted with its appearance, it may chance to be as useful to you as it was to me this year. Last February a young Indian civil servant, a district magistrate, was brought to me by his family medical attendant. He had just arrived in England with symptoms of extensive peripheral neuritis, so severe that he could not stand or walk without assistance. There was much weakness of the legs as well as wasting of the muscles. There was incoördination and absence of the knee-jerks, considerable fibrillation in the wasted muscles of the thighs, and great diminution in electrical excitability, which also presented a peculiarity with which I need not now trouble you. There was also considerable impairment of sensibility to pain and touch. His hands likewise were weak and very unsteady. The illness had followed a sharp attack of intermittent fever two or three months before, and he had previously suffered badly

from the ordinary malarial fever in India. Such neuritis is well known as an occasional sequel to these malarial fevers, caused apparently by a toxin which is left in the system. But in that form the muscles of the lower legs are chiefly affected and incoördination is seldom a prominent symptom. When I came to examine the patient's body I found it covered with pigmentation perfectly like that of arsenic. Indeed, I could not doubt its nature. Of course, I questioned him carefully regarding any possible source of arsenic-poisoning, and especially whether he had taken any tonic containing arsenic. It seemed certain that he had not, and no accidental source could be ascertained. Thus the sequence of events suggested malarial influences as the cause, but it was impossible to misinterpret the declaration so clearly written on his skin of the influence of arsenic. Moreover, another fact was learned which gave support to the cutaneous message. About the time of the commencement of his illness he had an attack of shingles. It is a long time (35 years) since Mr. Hutchinson pointed out that herpes zoster may be caused by arsenic. Hence we were compelled to consider that his condition was due to this, in part or altogether; the facts were too definite, although inexplicable, and we treated the patient accordingly. Six weeks later the medical attendant wrote to me that the mystery was cleared up. News had been received from India of the discovery of a prolonged attempt to kill the patient and his family by the habitual introduction of arsenic into their food. Several members of the family had suffered severely and the nurse had actually died from the poison. Our patient improved steadily, and I saw him a fortnight ago practically well, able to walk fairly and cycle 30 miles. The ataxy had vanished; some blunting of sensibility on the front half of the soles alone remained. He will soon return to his work in India. What is of particular interest, because it relates to a point about which we know little, is that the arsenical pigmentation has almost disappeared.

Another pertinent instance of the revelation which this sign may afford I need only allude to because I have already described it in a volume of clinical lectures under the heading of "Mistaken Diagnosis." The patient came with what seemed to be characteristic symptoms of ordinary tabes—pains, ataxy, and loss of knee-jerk. He came when I could not properly examine him, so I ordered him some medicine containing arsenic and arranged to see him again in a month. Then when I stripped him to test his sensation, to my consternation I found his skin covered with typical arsenical pigmentation. He was a colour-merchant, accustomed to deal in various pigments, but he had also taken for a long time a tonic pill containing arsenic. Both these cases illustrate the tendency of the sensory nerves to suffer under arsenic far more than under lead. The patient recovered and he taught me another lesson. There is evidence that iodide of potassium promotes the elimination of arsenic as well as of lead. The path by which it can pass away is, of necessity, the blood. You know that it is not well to give iodide freely to a patient with recent and severe lead poisoning because the lead stored in the tissues may be thrown into the blood too suddenly. This case showed that we should be equally cautious in the case of arsenic. Iodide in very moderate doses led to such an increase in the symptoms of irritation of the nerves as to compel its discontinuance for a time and very gradual resumption.

I have only one other instance to mention to you and that is an illustration of the other side of the shield. An epileptic patient, a young woman, about 30 years of age, presented marked pigmentation from the arsenic taken with bromide. From the latter she was deriving great good. I explained the nature of the darkening of the skin and she was satisfied. About six months later I received a letter from her sister written in dire distress. The aspect of the skin had caused two medical men to assure her that the patient was certainly the subject of Addison's disease—a progressive incurable malady. I could only reply that the patient when I last saw her presented darkening of the skin due to the arsenic. I heard no more of the case. It is right to say that this was before the Manchester epidemic had its opportunity of exerting its educational influence on the profession.

The facts I have given you are commonplace. Many of them may have been known to some of you, some of them may have been known to many of you; but one fact I am sure is true of all my hearers—for it is as true of myself as of anyone—the commonplace is of all knowledge that which we can least afford to despise or to disregard.

## An Introductory Address

OR

## HUMAN AND BOVINE TUBERCULOSIS.

*Delivered at the Royal Veterinary College, Camden Town,  
on Oct. 1st, 1901,*

By EDGAR M. CROOKSHANK, M.B. LOND.,

EMERITUS PROFESSOR OF COMPARATIVE PATHOLOGY AND  
BACTERIOLOGY, KING'S COLLEGE, LONDON.

GENTLEMEN,—I esteem it a great honour to have been invited to deliver the introductory address, and it is a sincere pleasure to me as a governor of this college to welcome to-day both new and old students. It is very gratifying to all those who have the interests of this college at heart that the number of students for several years has been so well maintained. I congratulate the new students upon the choice they have made in selecting the veterinary profession as their career in life. I congratulate them also upon the advantages which they will derive as students of this institution. The Royal Veterinary College not only stands in the front rank of veterinary schools in the British Empire, but it compares very favourably with those great institutions in France and Germany which have a world-wide and long-established reputation. In this country great difficulties have to be encountered by those who desire to promote scientific education. There is not the same amount of sympathy and financial support which is given to scientific institutions in America and on the continent. And therefore I feel very strongly that those who are responsible for the management of this college may, considering their limited resources, claim great credit for making the teaching so efficient and for placing opportunities for original research within the reach of both the teaching staff and the students.

With very many parents it is a most difficult matter to choose a career for their sons, and therefore it ought to be more widely known that it is a great advantage for young men to pass through a course of training in a veterinary college. Much might be said with regard to the danger of overcrowding the profession, but I venture to think that there is still plenty of room. The ranks of those engaged in private practice have to be filled up. There is a great demand in the army for thoroughly trained veterinary surgeons. Many members of the profession have rendered splendid services in the great war in South Africa, and if the experience of this war leads to the employment of mounted troops in still greater numbers, if, in other words, horses are destined in future wars to play such a conspicuous part, there must necessarily be a still greater demand for the services of those who have to select and to take charge of them. There is also an increasing demand for veterinary surgeons in the colonies. In South Africa and our other possessions the best methods of stamping-out animal plagues must occupy the attention of the colonial Governments and thus give employment to veterinary surgeons. There must also arise a greater demand at home for their services. The eradication or diminution of such diseases as bovine tuberculosis could only be attempted by the intelligent coöperation of the public with veterinary officers of health.

There are many parents who send their sons to the universities without having definitely settled upon their future career, and many parents who could not aspire to sending their sons to a university would do well to secure the advantages of a scientific education by sending them to a veterinary college. They would receive a sound scientific training, and the fees for the whole curriculum, exclusive of the cost of living, are less than the fees for sending a boy for one year as a boarder to one of the best preparatory schools. If the student did not eventually practise as a veterinary surgeon the time spent in acquiring veterinary knowledge would be by no means lost. Every well-educated man should have some acquaintance with the subjects which are taught at a veterinary college, such as botany, biology, physiology, chemistry, and even anatomy. Anatomy is of special value in training the intellect. It is an exact science, and the mind of the student is not disturbed by new theories and a variety of opinions. It encourages accuracy in

observation, it necessitates an accurate memory, and it trains the hands in delicate operations. As the student passes on to the essentially professional subjects—I mean the recognition, cure, and prevention of the diseases of animals, especially of horses and cattle—it will at once be admitted that there are many occupations in which a knowledge of these subjects can be put to practical account. A student may not ultimately elect to practise; he may prefer to take up farming either at home or in the colonies. He may become an estate agent or be called upon to lead the life of a country gentleman, and perhaps to serve on the "Diseases of Animals Committee" of a county council or other local governing body. In any of these positions the information which he would have received would prove to be of very great advantage.

#### PRELIMINARY EDUCATION.

In the education of students before they come to the college it is very desirable that attention should be given to foreign languages, especially French and German. Foreign veterinary surgeons have a great deal to learn from our methods, and English veterinary surgeons are equally indebted to the work and experience of their foreign colleagues. Some of the best text-books were written by foreign authors, and if the scientific veterinary surgeon in England wishes to keep in touch with continental opinion, experience, and research work it is an enormous advantage to be able to read the original publications. To depend upon the chance of translation or upon meagre abstracts in English is very unsatisfactory, and many contributions to literature would be quite out of reach. Those who held office as advisers to county councils or aspired to appointments in the Veterinary Department of the Board of Agriculture would appreciate the value of being able to study the reports of the agricultural departments of other nations. The admirable reports of our own Board of Agriculture would at a glance illustrate this point. This is, however, not the only value of a knowledge of French and German. International veterinary and science congresses are becoming more and more popular. The opportunities for exchanging opinions and experience with other nations are increasing, and the hard-worked veterinary surgeon might combine with the enjoyment of travelling the opportunity for exchanging ideas with his professional brethren by attending these congresses in foreign countries.

I do not require to be told that the veterinary surgeon has to think first of making a living—I am quite aware of that fact; but it must be remembered that travelling on the continent is a very different matter from what it was 20 years ago. The expenses have been reduced to such an extent by coöperation that an opportunity for foreign travel is placed almost within the reach of all. I would not even leave out the students; I should like to see parents encouraging the idea of "students' coöperative tours," thus enabling them to combine a little sight-seeing and the enjoyment of travelling with a visit to the museums and laboratories and school buildings of such institutions as the great Veterinary School of Alfort, near Paris, the Veterinary School at Berlin, the Pasteur Institute in Paris, and the Hygienic Institute at Berlin, where diseases common to man and to lower animals are constantly the subjects of investigation. Travelling scholarships would be of quite as much advantage to veterinary as to medical students.

#### HIGHER EDUCATION.

I do not propose to discuss the question of the higher education of veterinary students, but I trust that I may be forgiven if I again allude to a subject which I referred to on a similar occasion many years ago—I mean the desirability of conferring a degree in veterinary science. I desire to draw the attention of the leaders of your profession to this question—Why should not the Veterinary College be recognised in the new University of London? I would also again point out what a great advantage it would be both to veterinary surgeons and to the public if the Royal College of Veterinary Surgeons could see their way to instituting a special examination and conferring a Diploma of Preventive Veterinary Medicine. The course of training should be somewhat similar to the course of instruction given to medical men for the Diploma of Public Health. I hope to see the day when every county council and every rural and urban council will appoint a veterinary officer of health, and every applicant for such a post be required to hold the Diploma of Preventive Veterinary Medicine. I hope that in the future more veterinary surgeons will be placed in a position which

will enable them to devote their lives to original research. There is an enormous field for investigation in the causation and prevention of diseases of animals.

#### TUBERCULOSIS.

It would be impossible to give a better illustration of this fact than by referring to tuberculosis in animals, especially cattle. At the recent International Congress in London the relation of bovine tuberculosis to human tuberculosis was prominently brought forward in a paper read by Dr. Koch, and the question is of so much importance that the Government has appointed another Royal Commission to inquire into it. The governors, the staff, and the students of this college are all, I am sure, very proud of the fact that the researches made by your distinguished principal and the great reputation which he has made by his knowledge of comparative pathology have led to his selection as a member of this most important Commission.

It is instructive and encouraging to the veterinary profession to know that the researches which created most interest at the Congress were those undertaken in different veterinary colleges. Dr. Koch's experiments were carried out during the past two years with the coöperation of Professor Schutz in the Veterinary College at Berlin. It is necessary to refer to these researches in some detail to explain the point at issue and to compare the work and conclusions of Dr. Koch with the experiments and opinions of others who have investigated this subject. Dr. Koch in various ways inoculated 19 cattle with human tuberculous virus and none of them showed any symptoms of disease. On the other hand, cattle inoculated with bovine tuberculosis suffered, without exception, the severest tuberculous disorders of the internal organs. Dr. Koch concluded that human tuberculosis differed from bovine and could not be transmitted to cattle, and he further announced that whether man was susceptible to bovine tuberculosis at all was not yet absolutely decided, and that if such susceptibility really existed the infection of human beings was but a very rare occurrence. Dr. Koch believed that the extent of the infection by the milk and meat of tuberculous cattle and the butter made of their milk was hardly greater than that of hereditary transmission, and therefore he did not deem it advisable to take any measures against it. I must express myself in full agreement with Dr. Koch that if infection occurs at all it is of very rare occurrence, but I entirely disagree with the statement that human tuberculosis cannot be inoculated in cattle, and I must add that I consider Dr. Koch's statement with regard to preventive measures as singularly unfortunate. It conveys the impression, as pointed out by Dr. Hueppe, that Dr. Koch would have us concede to dairymen and milk-sellers the right of selling tuberculous milk. I feel justified in disagreeing with Dr. Koch on these points because in the course of an inquiry on "Tuberculosis in Relation to the Public Milk-supply" which was published in the report of the Board of Agriculture for 1888 I made the following experiment. A perfectly healthy calf was inoculated intra-peritoneally with very virulent human tuberculous sputum and the result was extensive tuberculous deposit at the point of inoculation with hundreds of tuberculous new growths extending from it. The calf died from blood-poisoning 42 days after inoculation and sufficient time had elapsed for the most pronounced infection of the peritoneal cavity. On microscopical examination extremely minute tubercles were found disseminated throughout the lungs and liver. Long and beaded bacilli of the human type were found in these organs and in the peritoneal deposits. This experiment was also made in a veterinary college. It was made in the institution in which we meet to-day, thanks to the great interest taken in the investigation by your former Principal, Sir George Brown. There was no need for me to repeat this experiment as it was absolutely conclusive, and it does not require any Royal Commission to verify the result. Other investigators in England and America have already confirmed this experiment. Dr. Sidney Martin, in experiments on behalf of the Royal Commission on Tuberculosis, succeeded in infecting cattle with human tuberculous virus. In Experiment 1 four calves received with their food sputum from two cases of pulmonary tuberculosis in man. One calf killed in about four weeks showed 53 nodules of tubercle in the small intestine; the second, killed in eight weeks, showed 63 nodules; the third, killed in about 12 weeks, showed 13 nodules; and in the fourth calf there were no nodules

at all. In Calf 3 the nodules in the intestine contained tubercle bacilli. They were absent in the microscopical specimens made of the nodules in Calf 1 and Calf 2, but Dr. Martin pointed out that these nodules were tuberculous although no bacilli were found. In Experiment 2 two calves received at one feeding tuberculous sputum. In one calf killed in eight weeks there were 13 tuberculous nodules in the small intestine and tuberculosis of the mesenteric glands. Tubercle bacilli were found in both sets of lesions. The second calf, killed in about 19 weeks, showed no disease.

Dr. Ravenel, of the Veterinary Department of the University of Pennsylvania, has recently carried out experiments of an equally positive character which he made known at the British Congress on Tuberculosis in London. Four calves were, as in my experiment, inoculated intra-peritoneally with tuberculous sputum. In one case the result was negative, in the other three a post-mortem examination showed that all had become infected with tuberculosis, the lesions in two being quite extensive. On the other hand, calves fed on human tuberculous sputum showed no trace of the disease when they were killed for examination. It is not impossible to explain these contradictory results; they are quite in harmony with the view which I hold that human and bovine tuberculosis are distinct varieties of the same disease. Man is not the natural soil of bovine tuberculosis. The attempts to transmit human tubercle to cattle would not be uniformly successful, and experiments which did not entail the direct insertion of the virus into the tissues might fail entirely. It is quite possible that in my successful experimental case the simultaneous production of blood-poisoning diminished the natural resistance of the tissues and rendered the animal markedly susceptible to infection with the virus from a foreign soil. The difference which may exist in the nature of the soil upon which a virus is inoculated must always be remembered. It is well illustrated by the result obtained by the inoculation of human small-pox upon cattle. Cattle do not naturally suffer from small-pox, which is essentially a disease of man, but it can be grafted on bovine tissues in exceptional cases. These experiments are so difficult that many experimenters who have failed have refused to believe in the positive results obtained by others. But variolation of the cow is nevertheless possible, and so marked is the effect of the soil that the highly infectious small-pox of man is transformed into a locally-inoculable, mild, vesicular malady in cattle, and can never again acquire an infectious character. Sheep-pox may be given as another instance. In this case a highly infectious malady in sheep when successfully grafted on human tissues is deprived of its infectious character and reduced to the condition of a mild vesicular disorder.

All tubercle bacilli can be inhaled and taken with food by perfectly healthy individuals without producing tuberculosis, but if from any predisposing cause there is vulnerability of the tissues it is reasonable to be suspicious of bovine bacilli. As human tuberculous virus can be grafted on to the cow, so also there are cases in which bovine bacilli invade the human tissues. I refer to those cases in which there has been direct inoculation of man. Cooks, grooms, and butchers may suffer from tuberculous nodules in the skin containing tubercle bacilli, but they undergo caseation and disappear. I agree with Dr. Koch in the opinion that human infection can only be quite exceptional. If it were not so, owing to the frequency with which tubercle bacilli occur in milk, cream, butter, cheese, and the quantity of meat derived from tuberculous cows, the inhabitants of every country in the world in which bovine tuberculosis was prevalent must necessarily have been decimated by tuberculous disease. I do not accept the theory that abdominal tuberculosis in children is due to infection from tuberculous milk. Those who advocate this view would appear to set aside the opportunities for infection from a human source. If tubercle in children is the result of infection of the digestive tract there are plenty of opportunities for self-infection when there is concurrent disease of the lungs and there are obviously many ways by which a child might be infected by the mouth with bacilli from a human source. Physicians who have had enormous experience with tuberculous patients of all ages are by no means ready to attribute consumption in any form to tuberculous milk or meat. Sir R. Douglas Powell in his evidence before the Royal Commission when asked if any danger existed in consuming meat bought in the butcher's shop or in using milk

from the milk-pail—i.e., whether the consumption of milk and meat from tuberculous animals might cause the disease in man—replied that he had not met with any cases in his experience which would connect the two facts together. Dr. J. F. Goodhart, consulting physician to the Evelina Hospital for Children, gave similar evidence. I am convinced that any suspicion of danger can be removed without creating a public scare. It is simply a question of better inspection of dairies and any risk which may exist can be met by adopting the precaution in both private and public dairies of destroying "wasters" or "piners" and removing all cows suffering from any disease of the udder. There is no necessity to insist on the boiling of all milk. Unless there are urgent reasons it is not a practice likely to be generally adopted. Boiled milk is very unpalatable to many people and the boiling of milk alters its composition and renders it, in the opinion of many, a danger to infants. Sir R. Douglas Powell and Dr. Goodhart were not prepared to recommend the boiling of milk as a precaution against tuberculosis. Tuberculosis of the bowels is almost unknown in very young children, and it is not very common even in children of from five to 10 years of age. In Dr. Goodhart's experience cases occurring in children with a distinct family history of tubercle were very widely spread, and it was quite common to find children becoming tuberculous after measles, bronchial pneumonia, whooping-cough, and intestinal catarrh.

As regards any danger from tuberculous meat it is, in my opinion, practically *nil*. I do not believe that there has been a single case recorded of tuberculosis contracted by eating tuberculous meat. Jews have a very thorough system of meat inspection and yet they are by no means free from tuberculosis. When travelling in the West Indies I found that tuberculosis was by no means uncommon among negroes, and Dr. A. D. Williams of Demerara stated before the Commission that Hindoos and negroes suffered severely. Dr. Williams said that the Hindoos eat very little meat of any kind. The negroes also eat meat in very small quantities, either salt beef or salt pork imported from America, and this is well cooked before it is eaten. They lived for the most part in small and badly-ventilated buildings. Negro children suffered from tubercle. They did not have as much milk as they ought, and usually, owing to the climate, the milk was boiled.

I think that we are justified in concluding that if the carcass is well nourished the meat is perfectly wholesome in spite of the existence of local deposits of tubercle in the organs and glands, which should of course be condemned. The view that an animal in prime condition but with a minute tuberculous nodule was a diseased animal and that the carcass ought therefore to be destroyed was a very extreme view and could not be carried into practice. As a matter of fact, there could be no justification for wholesale destruction of such valuable food. Compulsory destruction of every animal with a tuberculous deposit would almost involve the ruin of the agricultural industry, and it would be quite inconsistent with the continued use of meat imported from countries where such drastic measures were not entertained. No Government would face the question of compensation for every case of tuberculosis, however slight the lesion. It would be quite as reasonable to demand the destruction of the carcass of every animal suffering from an actinomycotic tumour. Actinomycosis is not only prevalent in cattle, but, like tuberculosis, it is also a disease of the human subject. In this country, in America, and in Australia it is still commonly known as "cancer." Cancer of the tongue, cancer of the jaw, cancerous polypus, and cancerous sores are different manifestations of actinomycosis. Quite recently a correspondent in the *Times* has suggested that eating the flesh of such animals may account for the prevalence of cancer in man—a most fallacious suggestion, for actinomycosis and cancer have nothing in common except the popular and misleading designation. It was at one time thought, as in the case of tuberculosis, that the disease in man is derived from cattle, and I have succeeded in grafting the human disease in a calf. They are, however, in my opinion, distinct varieties and I do not accept the theory that men and animals infect each other, but I believe they contract the disease quite independently and that the micro-organism is probably derived from cereals. Does the tubercle bacillus, like the streptothrix actinomyces, exist outside the animal body? There are many other questions bearing on the life-history of the tubercle bacillus, its exact rôle in tuberculosis, and its relation to other organisms which are closely allied to it

both as regards morphology, staining reaction, and cultivation, such as the bacillus of avian tuberculosis, the tubercle bacilli obtained from fish and worms, the bacillus of Rabinowitsch from gangrene of the lung, of Marpmann from urine, of Mironescu from human faeces, of Karlinski from nasal secretion, of Rabinowitsch from milk and butter, and of Møller from timothy-grass and the dust of other grasses. It is to be hoped that incidentally the new Royal Commission will throw some light on these points.

To eradicate tuberculosis in cattle and so to ensure the breeding of perfectly healthy stock, and thus to restore the confidence of the public in the supply of wholesome meat and milk, will be a splendid work for veterinary surgeons to undertake and one to which they must direct all their energies. As regards the prevention of tuberculosis in man that must be left principally to the sanitary inspector and the medical officer of health. We must not concentrate all our energies upon the destruction of tubercle bacilli but rather give more attention to other factors responsible for the causation of tuberculosis. The study of tuberculosis in animals may throw some light on these causes, and experience of the disease in man may assist in elucidating the causes of disease in animals. Tuberculosis is peculiarly liable to occur among birds and animals kept in captivity. Poultry and guinea-fowls are often the subjects of this disease, and ostriches and other birds in the Zoological Gardens become infected. In monkeys in captivity the disease occasionally occurs in an epidemic form. Pheasants in preserves are attacked sometimes in large numbers and rabbits in overcrowded warrens. These instances help to illustrate the view that damp and other insanitary conditions, confinement, overcrowding, defective ventilation, heredity, and breeding in and in were the most powerful factors in rendering the tissues prone to tubercle and a fitting soil for the invasion of the bacilli. We must not omit in the case of man the influence of alcoholism which has been so closely investigated by Dr. Brouardel; the influence of previous illnesses, such as measles and whooping-cough, as urged by Dr. Goodhart; and, lastly, the influence of special trade occupations which involve inhalation of dust of various kinds.

There are two points which I will discuss at greater length—heredity and tuberculosis in children. Heredity is of two kinds: there is hereditary predisposition to the disease and hereditary transmission of the virus. There is an inherited susceptibility or weakness which renders many individuals liable to the development of tuberculous disease. Family history plays a very important part in human tuberculosis. Sir R. Douglas Powell states from his experience that 48 per cent. of the cases in hospital suffering from tuberculosis had a previous history of hereditary tuberculosis. Whether all these cases are cases of hereditary predisposition, or hereditary transmission of the virus, or examples of both, is not determined. I am entirely in agreement with Dr. Klein and Mr. Victor Horsley that in some cases there is direct transmission of the virus and that it may exist for many years in a latent form. Dr. Klein brought this matter very convincingly before the Royal Commission. In connexion with this question of heredity some interesting observations upon tuberculosis in birds have been recorded by Dr. Baumgarten. On a poultry farm a cock developed tuberculosis. All the chickens reared from this cock were tuberculous. There was no evidence that the fowls were infected with either human or bovine tuberculous virus. An identical case occurred on another farm, and these cases have been accepted as evidence of the direct transmission of the virus from the parent bird. Tuberculosis is a rare disease in calves. It seems probable that those cases which do occasionally occur are mostly, if not entirely, the result of hereditary transmission. In discussing the occurrence of tuberculosis in children we may derive some consolation from the immunity of calves. Tuberculosis in children is largely a disease of the poor. It attacks all classes but is extremely common among the London poor and the poor of our overcrowded cities. I would attribute the disease in children to a want of milk rather than the possible occurrence of a few stray bovine bacilli in milk. Plenty of milk, good nourishing food, and better hygienic surroundings will do more to diminish the numbers of tuberculous children than any legislation directed against bovine bacilli. In proportion as the slums are removed from our overcrowded cities and the problem of the better housing of the poor has been solved we may expect to see a steady diminution in the amount of tuberculosis in children. I believe

that the infectious nature of the disease has been exaggerated. It is quite possible that the theory is fallacious—I mean the idea that phthisis can be caught like scarlet fever or may be compared to typhoid fever is, I think, a mistake. In typhoid fever epidemics at home, in India, and in South Africa we know that apart from cases of individual insusceptibility we have not to consider any other factors except the introduction of the specific poison of typhoid fever. Those in health and out of health fall victims to the disease if they have taken the poison in water or in food. There is no question at all of hereditary transmission or of predisposing conditions which render the subject susceptible to the poison. At the same time the habit of spitting in public places and railway carriages and other conveyances should be prohibited, and the sputum of phthisical persons should be disinfected. Several years ago I carried out experiments proving that sputum treated with 20 per cent. carbolic acid was rendered quite inert. Guinea-pigs inoculated with the carbolised sputum remained perfectly healthy and all control animals were infected without exception. There is no need to create a panic or raise an outcry for legislation to make spitting in public places a matter to be dealt with in the police-court. That the virus of tubercle scattered far and wide becomes a constant source of danger to all who inhale the air is not a theory which is supported by experiment and experience. Dr. A. Ransome maintains that in a well-ventilated room it is rendered harmless. Tuberculous sputum was exposed in the ventilating shaft of a hospital and proved virulent to rodents, but similar sputum exposed for the same time in Dr. Ransome's room, which was ventilated and well lighted, was absolutely harmless. Dr. Klein placed a number of guinea-pigs in cages in the ventilating shaft of the Brompton Hospital very many years ago. They were kept there for several weeks and all of them became tuberculous. We must not too hastily draw conclusions from experiments upon small animals such as rodents. In the same institution it was found among all those who had been connected with it—nurses, porters, physicians, surgeons, and so on—that the mortality from consumption was quite within the average of ordinary mortality. I am convinced that if tuberculosis were readily conveyed from person to person that marriage of individuals who become or are consumptive would be a fruitful source of direct infection. We should hear constantly of instances in which married people had infected each other with tuberculosis owing to the opportunities which occur for conveying the disease by the breath and in other ways. It is necessary to lay great stress upon the difference between experimental inoculation and natural infection. I cannot therefore regard tuberculosis as catching in the same sense that scarlet fever is catching, nor can I regard the comparison to typhoid fever as one that is not very misleading.

Those who aim at eliminating the conditions which I have referred to as powerful factors in the production of tuberculosis will render the greatest services in the crusade against tuberculosis in animals as well as in man.

**THE VEGETARIAN SOCIETY.**—The fifty-fourth annual conference of the Vegetarian Society was held in Manchester on Oct. 21st. At the morning meeting papers were read on various aspects of their subject. Mr. Alfred Russell considered "Vegetarianism and the Humane Spirit." Mr. Albert Broadbent stated that there was scarcely any toothache or neuralgia where whole-meal bread was used and dealt with the investigations of Mr. T. G. Read of the British Dental Association into the decay of teeth, which was said to result from the grinding of flour in roller mills. The public meeting in the evening was presided over by Mr. F. Eustace Miles who on a vegetarian diet said he could keep up training and brain work without regular exercise. The enemies of vegetarianism he considered "included the advocates of the slow-eating diet, no breakfasts, physical culture, and others." The advocates of vegetarianism "should insist on three aspects—the humane, the æsthetic, and the economic." With regard to the first two aspects Mr. J. C. Street said that the vegetarian diet gave "a spiritual clearness of vision that could not be obtained in any other way." The system does not appear to make rapid headway, for after 53 years of existence the society only received 11 associates and 48 members during the last year. It was stated that "a large number of distinguished and valued friends in the vegetarian world had died during the year." With all the claims made for vegetarianism this is surely unusual.

ABSTRACT OF A  
**Presidential Address**  
 ON  
**VENTILATION.**

*Delivered at the Annual Meeting of the Incorporated Society  
 of Medical Officers of Health on Oct. 25th, 1901.*

By A. WYNTER BLYTH, M.R.C.S. ENG.,  
 F.C.S., F.I.C.,

BARRISTER-AT-LAW; MEDICAL OFFICER OF HEALTH OF THE METRO-  
 POLITAN BOROUGH OF ST. MARYLEBONE.

[AFTER saying that he would define ventilation as being not the mere mingling and wafting of aerial mixtures, but the continuous replacement of air more or less vitiated of inhabited rooms or workshops with the purest air attainable, Mr. Wynter Blyth proceeded:]

Unpolluted water-supplies, the prompt removal of all kinds of dirt, excretal or otherwise, and abundance of suitable healthy food are common blessings of civilised communities; but the air of bed-chamber, of dormitory, of living-room, of factory, of workshop, and of meeting-place continues to produce that low state of health which conduces to the spread of tuberculous and other maladies. In these latter days it has come as a revelation and surprise to many that not a drug in the Pharmacopœia, not an animal extract, not one physical appliance with which science has enriched the remedial art, either singly or collectively, is equal in the treatment of tubercle to bathing the lungs and skin in fresh air. The remarkably successful treatment by open air of consumptive maladies must suggest to us, the guardians of the public health, that if air is curative it is also preventive, and that if abundance of pure air can be supplied to each unit of the population the death-roll from phthisis will be so insignificant as to render special sanatoria unnecessary. The problem to be solved is not the changing of air three times an hour in the spacious rooms of the well-to-do, or in large public rooms, or in hospitals, but in the quite small cubes sanctioned by the legislature—spaces of 400 and 300, or even of 250, cubic feet—for, obviously, if the problem is solved for the smaller it is also for the larger space. As the air in the streets of our towns not infrequently contains as much as six parts per 10,000 of carbon dioxide, it follows that this figure cannot be accepted as the standard of impurity for rooms of houses. A preferable standard would be two parts per 10,000 in excess of the outside air.

There are two distinct advances in the theory and practice of ventilation which have been made recently: the one is the publication by the Sanitary Institute of the report of the Cowl Committee; the other is the wide distribution of electric energy, permitting such mechanical appliances as rotating fans to be utilised by ordinary householders. Wherever there is an electric supply mechanical ventilation is cheap and practicable. The work of the Cowl Committee has extended over 25 years and has embraced a large number of experiments with cowls and ventilating shafts under numerous conditions. The results arrived at are, first, that anemometers vary considerably in the information which they record, according to the situations in which they are employed. The same instrument will give an entirely fallacious reading when used in a confined tube, if it has been standardised in a fairly open space. Thus, it was found necessary to standardise the instrument used by placing it in a tube of similar diameter to that in which it was proposed to use it and by passing a known quantity of air through the tube. Secondly, that a properly designed cowl or terminal gives a much better result than an open pipe of the same height and dimensions. As the flow up the pipe depends upon the head and the resistance (the flow being equal to the square root of the ratio of the head to the resistance), it follows that when the outside air is still the head will be so reduced in amount that there will be no appreciable flow of air up the tube. It is evident that when ventilation is wanted least—that is, in time of high winds—the shaft is most efficient; whereas on dull airless days, when ventilation is most required, the shaft is least efficient.

[Mr. Wynter Blyth condemned many forms of window appliances and even some forms of Tobin's tubes as being unsatisfactory from the disagreeable shower of cold air to

which inmates of rooms so fitted were subjected. Tobin's tubes were, however, capable of improvement and might be placed in such positions as would prevent any person's head being exposed to the downpouring cold air. Satisfactory results were to be obtained by the use of ventilating grates, especially in winter, when a large body of comfortably-warmed air might be cheaply supplied. The current in its passage caused a variety of eddies and currents and mixed up the air of a room in such a way as to make its composition more uniform. Mr. Wynter Blyth then detailed a number of experiments which he had made to show how important it was to have inlets and outlets properly placed. He continued:]

If, for example, the inlet be placed on the same level with an outlet the air may blow right across without affecting the main body of air in the room. The generally received doctrine of placing inlets for natural ventilation some four or five feet high, with openings towards the ceiling and outlets near the ceiling or at the ceiling, is in the main correct, but where there is excessive floor pollution, as in the day wards of idiot asylums, if mechanical ventilation is employed and warm air is driven in then it is best to make large openings on a level with the floor and so sweep away offensive odours. Even with natural ventilation it is certainly useful in such cases to have openings on a level with the floor, closed at will, so as to allow fresh air to stream freely over the surface. The great principle in ventilation is to remove polluted air as quickly as practicable, and that is best done by having the exit openings as close as possible to the localities where the air is polluted. Such a position chosen systematically is not possible with natural ventilation; it is only possible with mechanical ventilation.

#### MECHANICAL VENTILATION.

Whenever it becomes a question of difficult ventilation, such as in mines and underground places, it is the practice to use some form of mechanical ventilation, and, as already mentioned, the spaces for habitable rooms and working places sanctioned by law are so small and inadequate for the purposes of health that ordinary ventilating appliances dependent on the action of so-called natural ventilation do not effect their object. There are many forms of mechanical means of producing a "head," as, for example, by steam or water-jets, by punkahs, by large machines of the bellows type, and so forth, but the only form applicable generally is by means of rotating fans. Mechanical ventilation is almost synonymous with ventilation by the aid of fans, although not entirely. The applications of fans are numerous and important. A fan may be used to drive soot-free and dirt-free air through filtering media into inhabited rooms on foggy days, or it may extract smoky or offensive air from such places as smoking-rooms or lavatories. Fans have been applied for quite a century in certain trades to blow or suck away noxious dusts, or to similarly deal with injurious gases. In principle all the fans are identical. A number of vanes are attached to an axle. When the fan rotates the particles of air slip along the vanes on the tips, and leave the tips at a tangent with almost the velocity of the tips themselves. There is, therefore, a motion of air from the centre to the periphery and a diminution of pressure at the centre or axis. During hot summers electric fans may be seen rotating rapidly in many shops in the metropolis on the counter and worked from the ordinary electric supply. Applied in this way the air leaves the wheel at all points of the periphery tangentially and merely aids the local circulation. To obtain the full effect such a fan must be inclosed in a circular cover with openings at the axle and a tubular aperture at the periphery. In this way delivery may be made to take place along the tube. In the near future, without doubt, the cost will be much reduced, as there is a tendency to cheapen generally the transmission of current as the processes for the production and transmission of electrical energy become perfected. Nor is the motive power applicable to the moving of a fan restricted to the electric current. Advantage in large lavatories, and in places where there is abundance of water running to waste, has been taken of the flow of water. In factories where steam-power is available fans may be run at a cost scarcely appreciable. It is possible, also, that such a cheap agency as petrol, already so extensively employed to propel motors, could be applied in private houses to drive fans.

#### VENTILATION OF SEWERS BY MEANS OF FANS.

Hitherto the ventilation of sewers, whether by open gratings, or by shafts, or by lamp-columns, has been unsatisfactory. What are sewers but a network of miniatur-

mine galleries? Mines may and are ventilated perfectly by mechanical means, and I have the utmost confidence that the problem of sewer ventilation is capable of being solved by a suitable arrangement of fans driven by electric or other power. It was therefore with some considerable interest that with the assistance of Mr. Meredith Wynter Blyth an investigation was made of a small experimental plant laid down in West Ham by Messrs. Aldous of Forest Gate. Here a 12-inch fan electrically driven (1400 revolutions per minute) sucks the foul gases from a network of two miles of 12- and 15-inch sewers at the rate of 14,400 cubic feet per hour. Observations were made at a manhole 550 feet from the fan and at another manhole 1300 feet from the fan. The sewers in each case were about half full. The air in both sewers was so excessively foul as to be nearly irrespirable before the fan was allowed to run. The temperature in both sewers was 59° F., the outside air being 56·3°. There was insufficient air-current to move the vanes of an air-meter. Every few yards along these sewers there are open ventilators in the centre of the roadway; in each of these there appeared to be a feeble up-current. Samples of the sewer air were taken and the carbon dioxide was found to be a little over 19 per 10,000. The fan was now allowed to run nearly an hour and the two sewers were again examined. Although the fan was running at full speed there was again insufficient current to move an anemometer; but the odour, still strong, was certainly somewhat less; the temperature in each case was lower, showing that cool air had been sucked in, and the carbon dioxide had sunk in the one case to about 16 and in the other to 18·5. These results were quite as good as could under the circumstances be expected. To plant a fan down, as in this instance, in the centre of a network of sewers without closing up a single ventilator is to court failure. If sewers are to be ventilated by fans the best results will be obtained by using more than one fan; there should be mechanical contrivances for driving the air in and also for extracting the air, but more than all the area to be ventilated should be carefully prepared by stopping all ventilating shafts save those that deliver to or exhaust air from the sewers. Besides which resistances should be in certain places interposed where either ventilation was but little required or where the current was flowing at the expense of other pipes where the current was too weak. In short, the whole thing requires to be carefully engineered. Nevertheless, the installation amply proves that fan ventilation of sewers is practicable, that even such a crude installation exercises an appreciable effect on the sewer air, and there is no reason to believe that it would be too expensive. In cases, indeed, where the local authority owned an electric plant the maintenance of a few fans in certain portions of the sewer system could not be a serious matter.

#### VENTILATION OF THE CENTRAL LONDON RAILWAY.

An example of mechanical ventilation with which everyone must be familiar is afforded by the Central London or Tube Railway. The railway consists of two tubes, for the most part parallel to each other, 10,163 yards in length, 11 feet 6 inches in diameter, from Shepherd's Bush to the Bank. There are 13 stations, each station being constructed of cast-iron tubes 21·5 feet in diameter and 325 feet in length, one such enlarged tube being for the up and the other for the down line. Considering that the whole of the line and the stations are built up of iron pipes embedded in the clay at a depth of from 60 to 90 feet all the air must be renewed from the upper surface of the ground, hence the conditions are quite similar to that of the gallery of a mine with various shafts along its course. The trains fit the tunnels fairly closely; at the sides there is only an interval of a foot, the top of the carriage is but eight inches from the top of the tunnel, while the bottom stands two feet from the roadway. Owing to this arrangement the tubes practically consist of two large air-pumps, the trains being so many pistons, the one set of pistons moving in one direction, the other set in the opposite direction.

[Mr. Wynter Blyth and Mr. M. Wynter Blyth had made a series of observations on the ventilation of the tubes. Some of the experiments were made at Bond-street Station which stands about midway between the termini, others were made at Notting-hill-gate Station. The velocity of the moving air was measured by an air-meter in the centre of either the up or the down platform. Observations were also taken in the passages leading upwards to the street. The atmospheric pressure, the temperature as measured by the wet and dry thermometer, were also observed. The carbon

dioxide of the air was estimated in the station, on the staircase, in the lift, and in the street outside the station. Mr. Wynter Blyth said:]

With regard to the general movement of air we established the following facts. In front of each train there was a distinct and measurable increase of barometric pressure, in the rear a diminution of pressure. As each train left a station it pushed a column of air in front of it, part of which, on reaching the station, rushed up the staircase into the open air, and as the train left the station air rushed down the staircase from the street. The upward and downward velocities varied with the position of the trains; the latter current was slower than the former and was generally under four miles an hour, while the former on one occasion, when two trains were entering the station almost simultaneously, reached a velocity of 7·4 miles per hour. The maximum velocity in the middle of the platform due to an approaching train was found to be 5·79 miles per hour. The temperature outside for the time of year was low—56° F.—the temperature of the air within was 67°. The difference of temperature is due to several causes—the temperature of the earth-crust retaining the summer heat; therefore, the walls of the tube being warmer than the external air, the animal temperature imparted by the thousands of persons, each at 98°, going backwards and forwards, and some portion may be due to dynamical heating of the air, for it is well known that whenever air is compressed heat is liberated. The amount of carbon dioxide at Bond-street Station was 10·3 parts per 10,000, while on the stairs leading from the station it was a point or two less according to whether the draught was up or down. This compares favourably with a sample of air taken in the tunnel between Gower-street and King's-cross Stations of the Metropolitan Railway, which has 25·9 parts of carbonic dioxide, and even with the council chamber of St. Marylebone Town Hall, where half an hour after a meeting of 56 persons had begun 14·9 parts of carbon dioxide were found present, the amount in the external air in each instance being a little over four parts. In the tube between stations the amount rose to 11·9. At Notting-hill-gate Station the tubes are not parallel, but one crosses the other, and it was discovered that while there were 10·7 parts in the upper station there were only 6·9 parts in the sub-station. The reason of this is that instead of depending upon the movement of the trains to effect ventilation the air is renewed here by means of a powerful fan. The air-supply circulates from the surface of the ground into a circular chamber deep down below the lifts, and up again, by means of downcast and upcast flues. The air rushes down at a velocity of 9·7 miles an hour, giving an hourly air-supply of no less than 855,000 cubic feet. The research clearly shows that where the ventilation depends entirely on the passage of the trains, although there is so much movement of air, so much sucking in from above and blowing out from below, a good portion of the air must be driven backwards and forwards unchanged in the tubes; in other words, the tunnel air is diluted, but the whole of it is never swept out, whereas with the assistance of a fan the ventilation was extremely good.

#### THE VENTILATION OF DWELLING-HOUSES AND WORK-PLACES.

For about nine months in the year houses may be well ventilated by open windows and doors, but in the colder weather it is important to keep the hall, the corridors, and passages, by special warming appliances, at a comfortable temperature; for when windows are fast shut it is through the passages, staircases, and corridors that we obtain most of the breathing air. Hence the necessity, if we wish to avoid unpleasant cold draughts, to keep these conduits warm; then, on the return of warmer weather, the condensation on the walls of moisture is avoided and the house continues dry. In such houses it is better to deal with the rooms individually and give them their own ventilating system. The best method of ventilating an ordinary room is a good warm air-grate with an electric fan, which can be put in action when required so as to draw the air more rapidly from the back of the grate. Such a fan may be easily made with a cover and tube, so that it can be adjusted over the opening and connected by a plug to the ordinary electric-supply. When not required it is easily removeable; when there are an unusual number of people in the room, or from any cause the room is likely to be badly ventilated, the fan can be put in action.

With regard to the ordinary tenement house it is doubtless at the present time hopeless to suggest any mechanical

appliance. The great and essential thing is to consider the passages and staircase; it is when the house is shut up for the night that the great harm from bad air is caused. On every floor—probably in most of the grates on every floor—burns a fire, each chimney shaft is drawing up air from the closed house; the consequence is that the upper rooms particularly are fed from the basement and from various occupied rooms. An ordinary crowded tenement house when you enter in the morning reeks from top to bottom with the peculiar organic odour of the breath of persons. Much of this is obviated if the passages and staircases are well ventilated, and here is opportunity for the use of good upcast ventilators in the shape of cowls; skylights and windows will certainly be closed by the tenants, but a good cowl in the roof, difficult to get at, is the best palliative.

The cubic spaces sanctioned by statute in common lodging-houses, in the cubicles of shelters, in tenement houses, in schools, in factories and workshops, are impossible to ventilate by ordinary means so as to attain even a reasonable standard of purity, and with the growing price of land it is unlikely that the allowance of cubic space per head will be increased. We are therefore bound to consider seriously the question of mechanical ventilation. If some of the great expert talent now employed in the investigation and discussion of problems relating to sewage and sewage disposal was diverted to the studying of systems by which spaces of from 250 to 400 cubic feet could be kept supplied with fresh, pure, pleasant air, our factories and workshops would put out more work in a given time, and the mean duration of human life in this country would be appreciably lengthened. As the deepest mine can be made not only habitable but agreeable and healthy, it should not be impossible to make a subterranean set of offices, lit by the electric light, artificially ventilated, and warmed by the retained heat of the earth, far healthier to work in than many a city office is under present conditions.

## MILK OR WHEY IN ENTERIC FEVER?

By PRIDEAUX SELBY, M.R.C.S. ENG., L.R.C.P. LOND.

THE object of this paper is to condemn milk entirely as a food for enteric fever cases and to point out an efficient substitute in the form of whey.

In the treatment of this disease, more perhaps than in any other, we have a vast field to work upon in the reduction of the death-rate, a field in which I trust to prove that we can work with a good amount of success. The fact that the cold bath treatment of enteric fever has reduced the death-rate in places where it has been systematically carried out to one-half what it was before proves that enteric fever is a disease which has had in the past a death-rate which was unnecessarily high. This death-rate has continued high in spite of the almost measureless improvements in hospital accommodation, in spite of improvements in sanitation, in spite of the system of modern nursing by which our methods of treatment are carried out to the letter, and in spite of the enormous increase in our knowledge of the pathology of the disease.

Bacteriology, again, has taught us more than pathology, but it has taught us the science of the disease and we are inclined to be led away from the old-fashioned methods of treating disease by diet and medicine into methods which can be summarised as antitoxin methods: methods which, though magnificent in diphtheria, in the case of enteric fever are in their infancy, and in their results up to the present time anything but satisfactory.

Forty years ago Murchison gave the average mortality of enteric fever in the London Fever Hospital for a period of 23 years as 16.79 per cent., but in 1855 it was only 14.2 per cent., whilst in 1860 it was 28.7 per cent. Last year the death-rate in the London fever hospitals of the Metropolitan Asylums Board was 15 per cent.; in the British army in the United Kingdom from 1889 to 1898 it was 19.16; and in Charing-cross Hospital from 1890 to 1898 it was 18.5. The death-rate for the quarter ending March 30th, 1901, from enteric fever in the hundred chief towns of England and

Wales was approximately 20 per cent. The death-rate of London for the same period was 18.3 per cent., there being 729 notifications and 134 deaths. That this is so is wrong, radically wrong.

Authorities can be quoted by the dozen who with the intense conservatism which is born in us have continued and still advise a treatment which has been tested for over 50 years and has been proved to be inefficient—that is, the routine feeding of enteric fever cases on milk.

Enteric fever, which, we all know, is synonymous with typhoid fever, though it is difficult to persuade the public of that fact, is a disease which we may divide into two parts—firstly, the bacillus typhosus, and secondly the fever. Concerning the first, the bacillus typhosus is a microbe which is taken into the intestine with food or drink. It breeds in the contents of the intestines and attacks certain definite parts of the intestine, producing a condition which leads to the formation of ulcers. Apparently the bacillus only has the power of attacking the glands called Peyer's patches and has not the power of causing ulceration where there are no such glands. It is from these ulcers which are formed by the sloughing of the Peyer's patches that the chief dangers of the disease arise. The second division of the disease is the fever which is due to the absorption into the circulation of toxins and toxalbumins, which are poisons produced in the intestine by the decomposition of the nitrogenous foods in the form of proteids and albumins—chiefly milk curd. For clinical purposes we may ignore the fact of the bacteria being found in the mesenteric glands, spleen, and kidneys, for they seldom give rise to any local symptoms beyond some enlargement of those organs and do not require any special treatment. The cold-bath treatment has lessened the death-rate by preventing the high temperatures and their concomitant evils, but it must be a more sound form of treatment to go to the root of the evil and to lessen the production of these pyogenic poisons.

Milk should not be given as a diet to enteric fever patients, firstly, because milk in many cases forms hard cheesy curds in the stomach. These curds pass along the intestine, giving pain and scraping the raw surfaces of the ulcers and causing in many cases hæmorrhage, perforation, and death. The effect of these cheese-like masses of casein is worse for the patient than feeding on well-masticated solids. Moreover, the perpetual distension of the bowel from the large amount of gases evolved by the digestion or decomposition of the milk keeps the ulcers stretched and thus thins their floors. Secondly, because the bacillus typhosus breeds rapidly in milk, the more bacteria there are the more the toxins produced, and the more the toxins the more the fever and constitutional disturbance, with foul mouth, headache, cardiac weakness, delirium, and a feeling of illness.

In passing I would say that it would be a point of great interest for bacteriologists to determine whether the bacillus typhosus can live and increase in a medium containing no nitrogen, either in the free state as in air or in combination as in nitrogenous foods. I can find no record of any such researches. Though it breeds in water there is generally free nitrogen present in the form of air.

Now for the remedy. If we do not give milk what can we give in its place?

In a paper on typhoid fever which I read before the East Kent Branch of the British Medical Association at Canterbury I bemoaned the physiological necessity for milk as a diet and appealed to the members present to suggest a substitute, for I was convinced that it was wrong to give it. One gentleman, whose name it is my misfortune to have forgotten, mentioned that he had heard of whey being given in Dublin, but could give no particulars of cases. I determined to try it. Beginning very gently and watching the patients' hearts very carefully I found that the heart's action improved on what to my mind appeared practical starvation. The result has been to reduce the death-rate of the cases under my care which had been 15.5 per cent. for the previous seven years to 2.7 per cent. for 73 cases. With the exception of two cases, all those cases which I bring forward have been treated by me at the Beacon Hill Isolation Hospital of the Faversham Rural District, and I take this opportunity of acknowledging my indebtedness to the matron and nurses who have had charge of the cases, when they were not themselves patients, for their carefulness and the interest which they have taken in the method of treatment.

The following table shows the comparative analysis of whey and cow's milk:—

*The Results of a Comparative Analysis of the Whey and Cow's Milk used, expressed in Percentages.*

	Whey.	Milk.
Total solids ... ..	7.4	12.43
Lactose ... ..	4.9	4.9
Fat ... ..	1.2	3.4
Albuminoids ... ..	0.8	3.3
Mineral matters ... ..	0.49	0.73

From this it will be seen that whey contains about half as much solids as milk does. The loss in fat is 2.2 per cent. and in albumin 2.5 per cent. Whey, therefore, practically consists of a solution of milk sugar with a small amount of fat, albumin, and salts. Science tells us that a male adult at rest requires daily three ounces of nitrogenous food, one and a half ounces of fat, 12 ounces of carbohydrates, an ounce of salts, and from 50 to 80 ounces of water. Taking four pints of whey as the average daily diet for adults the total in solids is roughly: three-fifths of an ounce of nitrogenous food representing a deficiency of  $2\frac{1}{2}$  ounces;  $1\frac{1}{2}$  ounces of fat representing a deficiency of three-tenths of an ounce; four ounces of carbohydrate representing a deficiency of eight ounces; and two-fifths of an ounce of salts representing a deficiency of three-fifths of an ounce. It is therefore a surprise to find from practical experience that the body can carry on its functions well for three months (Case 44) during an illness with high fever on a diet in which the nitrogenous food has been reduced to little more than half an ounce daily. Sugar of milk,  $C_{12}H_{22}O_{11}$ , contains no nitrogen; whisky, which is alcohol,  $C_2H_5O$ , with a little colouring matter, traces of essential oils, and water, also contains no nitrogen.

**Preparation of the whey.**—To each quart of new milk stir in two teaspoonfuls of rennet. Put it into a pan and warm slowly till it curdles. This takes about 20 minutes. Break up the curd and strain the whole through fine muslin. The curd is thus separated from the whey. A quart of milk yields about six ounces of curd. The rennet we use at Beacon Hill Hospital is freshly prepared by a local druggist and is thus free from salt. The whey prepared from fresh rennet is thus more palatable, but all of the ordinary rennets sold by druggists and grocers answer very well. As rennets are slightly variable in strength the correct amount to be used in each case to form a curd of sufficient firmness must be learnt by experience. More cream can be added to the whey if required. The whey can be sterilised in summer and made more palatable to some people by the addition of tea, coffee, or other flavouring material. For children, if it be coloured pink with a little cochineal, it makes them very happy. The quantity given varies from a pint and a half to six pints daily. In no case have I limited the quantity. If the whey be sterilised some lemon-juice should be given occasionally to prevent scorbutic symptoms. In only two or three cases did vomiting take place and in each instance it was shortly after admission and was probably due to undigested solids in the stomach. Two of these children passed fresh black currants and seeds. Most patients take whey well without any flavouring and they generally infinitely prefer it to milk. All the patients discharged have been sent out well, and I have not heard of any ill after-effects in any case. It is a difficult thing to reconcile these practical results with physiological data, and the physiological deficiency is the lack of nitrogen. True, many patients have had some beef-tea, but it was given as a variation in diet to make them feel happier or because there was constipation. It will be noticed in the table, however, that most patients had no beef-tea at all.

Some theorists maintain that the patient obtains his nitrogen from his own tissues. It matters not where he obtains it or whether he obtains it at all provided the practical result is good. Perhaps the system in enteric fever has the power of absorbing it from the atmosphere; perhaps it can do without it.

The amount of emaciation on this diet varies very much, but not more than it does on any of the usual diets for enteric fever. Some patients seem scarcely to lose weight, but the patient in Case 48 was so thin that the abdomen

appeared absolutely empty and the outline of the spinal column showed through the skin of the abdominal wall. She was troubled with the characteristic green motions sometimes found in enteric fever, but when the fever had gone she regained weight even faster than she had lost it.

The most marked beneficial effects of the whey diet are in the clean mouth and tongue. Even in the third week of the disease the tongue and mouth scarcely vary from the normal healthy condition. One never sees sordes, thick dry fur, cracked tongue, ulceration, *et hoc genus omne*, so that the patients' sufferings are at once halved and they have really little to complain of.

That the result of whey diet on the heart is good can be seen at once by the gradual diminution of the pulse-rate in nearly every case. In Case 44 the pulse was 60 after 11 weeks' use of whey diet, and in Case 33 it was 46 on the twenty-sixth day after admission.

The fatal cases of enteric fever were two and in one of these the disease was doubtful. Another case (21), a woman who was admitted suffering from uremia and who rapidly became comatose and died three days after admission from that condition, I have expunged altogether from my list as there was no evidence of enteric fever.

The first fatal case (Case 31) was a true death from enteric fever of a very severe type. On admission the patient had a weak dicrotic pulse. His temperature chart was an extraordinary one, there being scarcely any variation morning, noon, or night; he had profuse diarrhoea and perpetual hæmorrhages, and finally he collapsed with a profuse hæmorrhage following on very severe diarrhoea. I cannot but regret now that I did not use the cold-bath treatment in this case. The patient certainly would not have had so much exhaustion from the high temperature and it might have enabled him to withstand the effects of the deep ulceration that was evidently present. He was admitted at about the tenth day of the disease and kept a good pulse in spite of small hæmorrhage till the twenty-eighth day. On the thirty-first day his bowels acted seven times with hæmorrhage, on the thirty-second day 15 times, and on the thirty-third day 14 times. I believe the blood in the intestine was the cause of the purging and the purging aggravated the hæmorrhage, thus causing a "vicious circle." The actual cause of death may be classed as "hæmorrhage." I cannot believe that any different diet would have saved the patient. The patient in the other fatal case (Case 35) was a young man who had been in Cuba and had had "Cuban fever." He was yellow and cachectic on admission and was suffering from diarrhoea with very green stools containing much mucus. The pulse on admission was 116. His temperature kept hectic, as may be seen from the chart, and his symptoms were more those of dysentery and abscess of the liver. It was most difficult to get him to take his nourishment. After four weeks the temperature became normal and the loose motions ceased. He was well enough to sit up and I put him on semi-solid diet, but violent diarrhoea started immediately again and he died more than eight weeks after admission. It is very doubtful whether this was a case of enteric fever at all, but as there is doubt I thought it better to include it.

For many years there have been medical men in different parts of the world who have tried methods of dieting different from the routine milk diet. As far back as the "seventies" Mr. William Thomson of Melbourne in Australia, a man of much originality, an interesting writer, and a man with much experience of enteric fever, eliminated milk from the diet of his patients and fed them entirely on raw meat-juice and whisky. He was reputed to have lost only two cases in all his practice. Dr. O. F. Paget of West Australia records that he has treated well over 100 cases of typhoid fever without a death. He gives his patients large doses of olive oil by the mouth and the rectum, but he does not mention how he diets them. Recently Dr. F. J. Smith of the London Hospital advocated stopping all food for 24 hours if undigested milk or other food were found in the motions, varying the quantity of food according to the patient's appetite, and even giving nothing but cold water for four or five days at a time with the happiest results; but "milk is his sheet anchor," and he did not in his article mention his death-rate.

Since making up my table I have had one more case. The patient refused whey at first and spat out his nourishment, so I allowed him to go without nourishment altogether for

TABLE GIVING DETAILS OF 75 CASES OF ENTERIC FEVER IN WHICH THE PATIENTS WERE FED ON WHEY.

No. of case.	Age.	Sex.	Highest temperature in degrees F.	Duration of temperature after admission in days.	Highest pulse-rate.	Highest daily action of bowels.	Alcohol in ounces.	Whey.		Remarks.	Complications.
								Quantity in pints.	Duration in days.		
1	5	F	104.2	11	144	10	1½	2½	24	There was much tympanites. Turpentine enema, 10 minims in four ounces of water; oil enema for constipation. Otitis interna. The patient was sick at first till whey coloured with cochineal was given.	Spots; otitis.
2	4	F.	104.4	5	136	6	1	2	20	—	Slight hæmorrhage before admission.
3	52	M.	—	—	—	—	2	3*	22	—	Heart disease.
4	47	M.	—	—	—	—	2	3*	—	—	Pneumonia.
5	53	M.	—	—	—	—	2	3*	—	—	—
6	15	F.	—	—	—	—	{ 8 } 12	4	44	The patient passed urine unconsciously. A bad case; two relapses; got out of bed; picked a hole in her head. Also had meat essence (Brand).	Toothache.
7	20	F.	—	—	—	—	6	3	27	From Maidstone epidemic. Also had 10 ounces of beef-jelly daily.	—
8	2	M.	—	—	—	—	1	3	13	Two minims of tincture of opium four times a day for five days.	Peritonitis.
9	7	F.	—	—	—	—	0	2½	20	Also had beef-tea and the white of two eggs. Periostitis of the tibia afterwards.	Diarrhœa; otitis; endocarditis.
10	13	F.	—	—	—	—	3	{ 3½ } 4	40	Very slight hæmorrhage; cough; leucorrhœa; relapse.	Heart; otitis.
11	16	M.	—	—	—	—	4	4	5	—	Pericarditis.
12	17	F.	—	—	—	—	—	4	39	Had beef-tea also after 21 days. Note 10 days after admission: "Has had nothing but whey. Pulse 72, good. Cardiac first sound excellent."	—
13	26	M.	—	—	—	—	—	3*	21	—	—
14	25	F.	—	—	—	—	{ 2 } 4	4	14½	—	Albuminuria; hæmorrhage; phlegmasia alba dolens.
15	25	F.	—	—	—	—	½	3	14	Did not abort.	Pregnancy, three months.
16	5	M.	—	—	—	—	—	3	18	—	—
17	6	M.	—	—	—	—	—	3	{ 5 } 23	Relapse on the fifteenth day.	—
18	36	F.	103.2	17	114	C.	—	4½	21	Slight attack. (C. here and elsewhere signifies constipation.)	—
19	5	M.	104.2	{ 28 } 18	{ 140 } 112	4	{ 3 } 2	3	{ 37 } 29	Also half a pint of beef-tea flavoured with vegetables. A long severe case with relapse.	Acute meningitis.
20	11	M.	101.4	14	116	4	—	3½	20	—	—
22	48	F.	102.4	21	104	6	6	3	30	The patient had eaten oysters 14 days before admission. Abdomen very doughy. Opium for diarrhœa.	Aphasia (temporary).
23	61	M.	103.0	26	88	3	3	4½	43	Olive oil enemata for constipation. Later slight rise of temperature from tympanites.	—
24	27	F.	103.0	17	110	6	2	3½	24	The whey was slightly flavoured with tea. Fifteen minims of tincture of opium for diarrhœa.	Pregnancy; aborted thirtieth day.
25	9	M.	104.2	21	112	2	—	3½	30	Sponged occasionally.	—
26	4	F.	102.8	9	120	2	—	3	20	—	—
27	28	F.	99.2	20	62	C.	—	3½	30	The temperature did not go to 100° F. throughout.	—
28	12	F.	103.0	21	112	2	—	3½	34	—	—
29	13	M.	104.2	5	106	C.	3	3½	14	—	Epileptic.
30	7	M.	104.2	16	126	4	2	3½	51	An interesting drop in the temperature from 102° to 97° F. occurred without apparent cause. Afterwards a constipation temperature.	—
31	21	M.	104.4	25	122	15	4	4	25	The temperature varied from 103° to 104° F. for the first week. Was admitted with dicrotic pulse. Three hæmorrhages. Most severe and profuse diarrhœa. The patient died rather suddenly.	—
32	12	M.	103.4	4	100	C.	—	3½	17	Apparently an abortive attack as in Case 29 (a brother of this patient).	—
33	24	M.	104.2	24	94	{ 3 } C.	2**	4	25	The pulse 52, good, after 25 days on whey only. Enormous appetite when convalescent.	—
34	24	F.	103.4	17	118	2	—	4½	25	The pulse came down steadily on whey.	—
35	22	M.	103.0	30	136	6	2	4	42	A cachectic anæmic man who had fever in Cuba. Much slimy diarrhœa. ? Dysenteric. Very difficult to feed. After the whey was left off the diarrhœa was lienteric. The patient was very depressed. Vide chart.	Cuban fever; cachexia.
36	9	F.	104.0	24	144	4	3	3	35	A good whey case. Perpetual diarrhœa for over three weeks, with fever, but the pulse steadily improved.	—
37	13	F.	103.4	21	128	2	3	3	32	Spots.	—
38	7	F.	102.6	13	132	3	3	3	28	—	—
39	14	F.	102.8	14	126	4	—	3	25	A sister of the last two patients. She took no alcohol, so her case compares well with Case 38.	—
40	8	M.	104.6	29	144	5	{ 2 } 4	{ 3 } 4½	42	A severe and long attack. There was much abdominal distension which was relieved by turpentine enemata.	Cerebral irritation with cough.

TABLE GIVING DETAILS OF 75 CASES OF ENTERIC FEVER IN WHICH THE PATIENTS WERE FED ON WHEY—(Continued).

No. of case.	Age.	Sex.	Highest temperature in degrees F.	Duration of temperature after admission in days.	Highest pulse-rate.	Highest daily action of bowels.	Alcohol in ounces.	Whey.		Remarks.	Complications.
								Quantity in pints.	Duration in days.		
41	38	M.	103.6	29	112	7	{ 3 } 8	4	29	A recrudescence of temperature on the twelfth day after normal lasted 13 days due to abscess over the sacrum. A long and severe case.	Hæmorrhage.
42	2	F.	101.0	7	106	2	0	3	21	A daughter of the patient in Case 41.	—
43	22	M.	104.4	31	130	13	4	4½	42	—	Toothache; delirium.
44	21	F.	105.0	{ 38 } 8 14	120	6	3	4	89	On the thirty-ninth day of the disease the pulse was 96, full and good, on whey and whisky only. The patient lived on whey and whisky for 89 days. No diarrhoea.	Gland in neck afterwards; phlebitis.
45	32	F.	103.2	11	136	1	4	4	28	—	Constipation.
46	24	M.	100.8	9	98	7	0	4	19	—	—
47	6	M.	103.6	{ 46 } 8	140	6	½	{ 3 } 4	61	Long-continued fever with high pulse, followed by constipation temperature.	Diarrhoea for three weeks.
48	32	F.	105.0	45	128	8	{ ½ } 1	4	58	The mother of the last patient. Hæmorrhage of clots for 10 days. Grass-green motions relieved by salol. Very thin. Interesting case.	Hæmorrhage; hysteria; green motions; diarrhoea.
49	28	M.	104.0	21	104	6	{ 4 } 6	5	28	A brother of the patient in Case 46. Suppression of urine for 24 hours; dicrotic pulse; hæmorrhage. Arteritis in the leg afterwards, with slight slough on the toe.	—
50	5	M.	—	—	—	—	—	4	21	No rise of temperature after admission.	—
51	23	M.	105.0	35	120	17	3	{ 4 } 5	{ 48 } 5	The patient had eaten mussels from the sewer opening at Whitstable. There was much diarrhoea; coma vigil; muscular tremors. Steady improvement of the pulse.	—
52	13	M.	103.8	18	108	4	0	4½	49	Bowels not being opened for eight days caused a rise of temperature for eight days.	—
53	20	M.	103.8	18	94	3	0	4½	43	Peeling with scarlet fever and ill with typhoid fever when admitted.	—
54	33	M.	103.8	20	100	1	0	3	31	Retention of urine on admission. Temperature normal in four days; three weeks later the temperature was for 21 days typical of typhoid fever.	—
55	9	M.	104.0	7	126	8	0	3	20	One of six patients in the same family.	—
56	20	M.	103.8	7	84	1	0	4	22	Spots.	—
57	28	F.	104.0	21	120	4	0	4½	35	Had a miscarriage. She did washing for a typhoid fever case at Kennaways Hospital.	—
58	11	F.	103.0	11	116	7	1	2 or less ¶¶	25	Spots. Troubled with vomiting on admission. Retained nothing but brandy-and-water for three days.	—
59	13	F.	104.6	23	124	6	6	3½	30	Passed motions unconsciously. Typhoid voice, high-pitched and querulous.	—
60	6	F.	105.2	24	126	7	2	2½	30	Green motions. Sponged. Took little whey. Salol, three grains three times a day.	—
61	29	M.	100.0	1	72	1	—	4	15	Ill three weeks before admission. Spots; hæmorrhage.	—
62	43	M.	103.8	37	100	4	1	{ 4 } 6	22	The sixth case from one house. Spots; much blood in the urine.	Acute nephritis.
63	32	M.	104.0	20	118	1	3	5	38	Acute purulent bronchitis. ? Typhoid. Was re-admitted after previously being discharged.	—
64	32	M.	103.0	5	92	1	0	4	17	Ill about a fortnight. Spots. Re-admitted above.*	—
65	7	F.	99.6	7	66	2	0	3	8	Probably not typhoid fever.	—
66	7	F.	104.8	21	132	3	0	3½	41	Same as last case. ? Caught typhoid fever in the hospital.	—
67	4	M.	105.6	10	134	11	1	2½	36	Green motions. Three grains of salol. Passed a whole black currant in motions, also seeds.	Scurvy.
68	—	—	103.0	—	—	—	—	—	—	A private case. The patient was nursed by his wife.	—
69	—	—	—	—	—	—	—	—	—	A private case.	—
70	27	M.	103.2	23	112	5	3	4	34	Only passed two ounces of urine in the first 18 hours. No albumin. Had eaten oysters.	—
71	17	M.	103.0	6	84	2	3	4	22	An abortive case of undoubted typhoid fever.	—
72	—	—	—	—	—	—	—	—	—	An ordinary case.	—
73	—	—	—	—	—	—	—	—	—	A severe ordinary case with steady pulse.	—
74	—	—	—	—	—	—	—	—	—	A peculiarly slow, steady pulse.	Relapse.
75	—	—	—	—	—	—	—	—	—	A doubtful case. ? Only pneumonia or abortive typhoid fever. Constant diarrhoea.	—
76	20	M.	104.0	—	90	5	4	4	32	An enormous hæmorrhage, almost three pints on the twenty-sixth day, also on the twenty-seventh and twenty-eighth days; dicrotic pulse 84 afterwards.	—

Counting Cases 63, 64, 65, and 66 as two cases and omitting 21 = 73 cases.

\* And one pint of milk. † Then milk and whey. ‡ And beef-tea. § Beef-tea after 20 days. ¶ Beef-tea after 14 days. ¶¶ Epidemic.  
 \*\* After 15 days. †† Beef-tea after the twenty-fifth day. ‡‡ Chicken broth after the twentieth day. §§ Beef-tea on the thirtieth day  
 ¶ Cream and beef-tea. ¶¶ Soda-water. \*\*\* Jelly. ††† Beef-tea and jelly.

24 hours. He then took the whey and liked it exceedingly well and has made a good recovery.

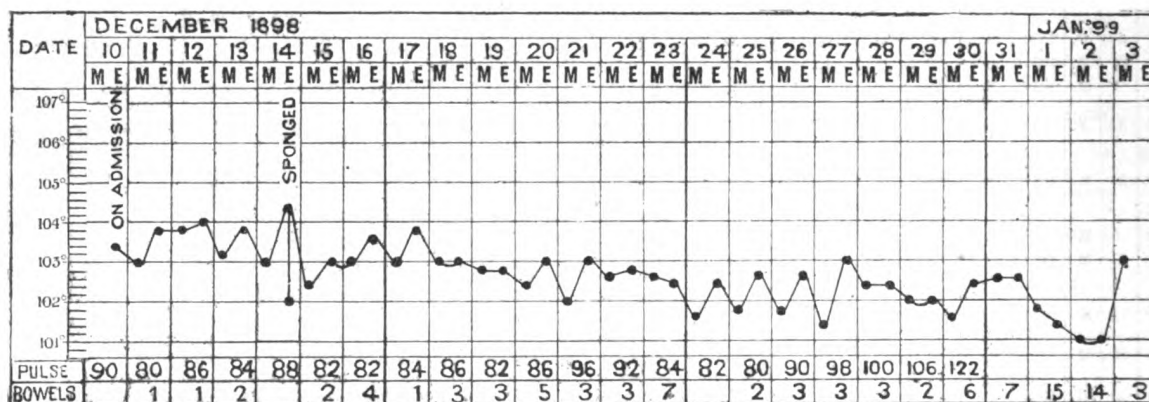
In Cork-street Fever Hospital, Dublin, the death-rate for about 15 years is about 7.5 per cent. Dr. J. M. Day, the resident medical officer, writes to me that his treatment is sweet whey, white of egg, and broth chiefly. He does not use milk if there be tympanites, diarrhoea, hæmorrhage, or any evidence of its disagreeing with his patients, and never gives children milk except in very mild cases. It is probable, therefore, that it was to Cork-street Fever Hospital that my Canterbury friend referred.

Besides those who have written on the subject one hears of a growing tendency amongst medical men to feed enteric fever patients on white of egg, barley-water, and veal broth. The death-rate of the Maidstone epidemic was only about 8 per cent. This much we know, but we would also much

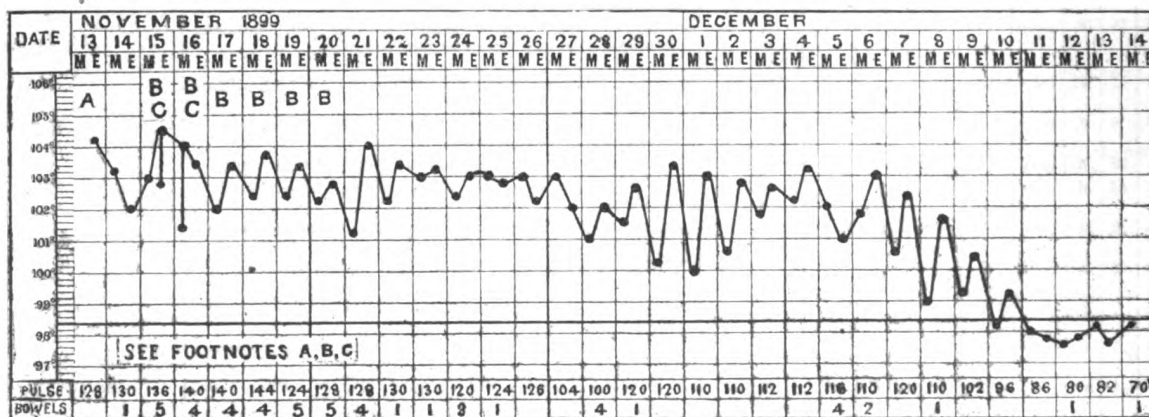
where a patient is hungry and is not given enough to satisfy his appetite. Moreover, he takes an intelligent interest in his own case. As I once knew a case of relapse on the fifteenth day, I keep the patient on the diet until 15 days after the temperature has regained its normal rate. This may be thought four or five days longer than is really necessary, but it absolutely does away with any risk of relapse from too early feeding. One frequently gets a slight rise of temperature during this fortnight if there be much constipation, but an enema of half a pint of olive oil generally removes it. In cases with such rises of temperature it is always well to examine the teeth, for I have on many occasions—and this is particularly the case after scarlet fever—found that an aching tooth which the patient had not mentioned has caused the rise of temperature.

It is wonderful how little trouble patients treated in this

CLINICAL CHART OF CASE 31.



CLINICAL CHART OF CASE 40.



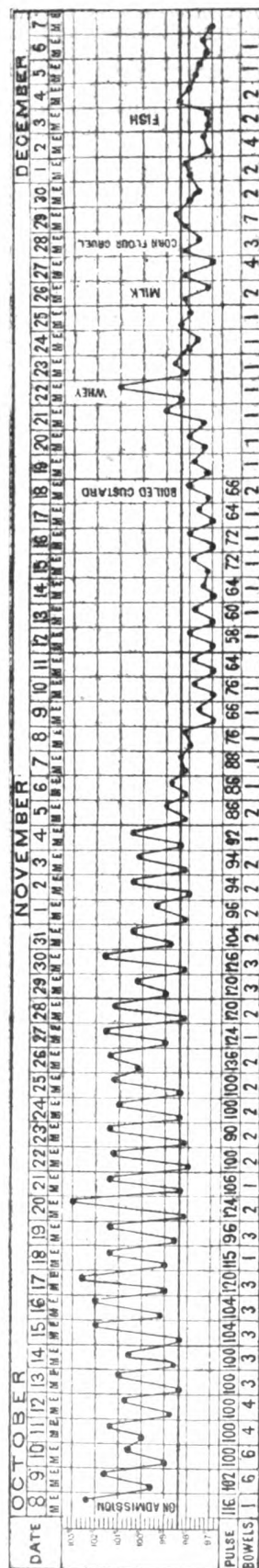
A. On admission. B. Turpentine enemata (half ounce twice or thrice daily). C. Sponged (the vertical lines indicate the reduction of temperature 20 minutes afterwards).

like to know how those cases were treated—whether they were all treated on milk or whether they were treated without milk. It would be a great kindness if the medical men of Maidstone would enlighten us. In epidemics one expects a lower death-rate than in sporadic cases, because the early recognition of the disease halves the danger and certainly modifies the severity of the attack.

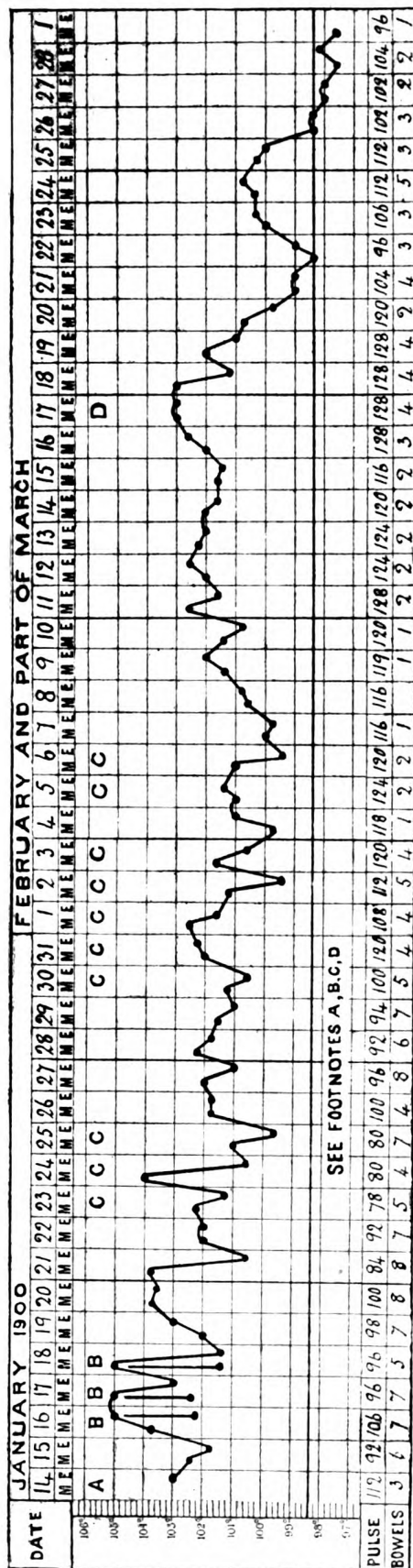
In treating cases of enteric fever I always find it a great assistance, if the patient be old enough to understand, to explain to him that the disease is an ulceration of the bowel and that he must be kept on the diet to prevent the risk of food scratching a hole in the bowel. He is flattered at being taken into one's confidence and fully and easily appreciates the necessity for it from a common-sense point of view. After doing this it is seldom that one hears the usual complaints that are inseparable from a condition

way are to the practitioner and the nurse. Even when they are admitted in a state of delirium it very rapidly disappears and the mind becomes clear and the patient quiet and easy to manage. Instead of keeping the medical man in a state of perpetual anxiety and worry, necessitating, perhaps, three visits in the day, they do so well that they can be seen at his convenience and when they are seen require seldom more than the usual examination of tongue, pulse, heart, palpation of the abdomen, inquiry as to quantity of urine and freedom from albumin, and the directions to the nurse to "go on the same." One case, that of a young man in a cottage with a sensible little woman for a wife, was treated at home and did as well as those in hospital. In such cases I would urge the absolute necessity of explaining the disease and the treatment, and the nurse will not then feed her patients on apples and grapes.

CLINICAL CHART OF CASE 35.



CLINICAL CHART OF CASE 48.



Alcohol is a most important factor in feeding in enteric fever cases. Sixteen of my patients had no alcohol, but the majority of them had from one to four ounces daily. In Case 6 the patient, a female, aged 15 years, had as much as 12 ounces and in Case 59 the patient, aged 13 years, was given six ounces. Both of these patients had the querulous, high-pitched voice so characteristic of enteric fever and were weak in intellect for a short time after convalescence. In both of these cases the alcohol was pushed because the cardiac first sound was weak—and in such cases the alcohol *must* be pushed to any extent. I have given 24 ounces daily before beginning this treatment. From two to four ounces for adults seem beneficial and never do any harm, acting as a food and lessening tissue change, and I would always advise that a small quantity be given. I use whisky or brandy, as the patient prefers.

A symptom one meets with perhaps once in 20 cases is grass-green motions. I have found from five to 10 grains of salol three times a day rapidly cure this, and since beginning the use of salol I have never had to use any other drug for it.

*Fever.*—In no case have I had to resort to the cold bath, though I now think that the patient in Case 31 would have been the better for it. In the first place, I never allow the patient more than one sheet over him as bed-clothes, even if he complains of feeling cold. If his temperature goes higher than 103° or 104° F. I have him sponged and placed under a cradle with one or two icebags suspended inside and a sheet over the top. This forms a cold-air bath and is quite efficient.

*Hæmorrhage* occurred in five or six cases, including Case 31, a fatal one. The other cases gave no trouble, though the patient in the last case in my list had an enormous hæmorrhage measuring over two pints. In this case a pulse of 84 was kept after the hæmorrhage and the patient made a good recovery. We may assume that no treatment will prevent the possibility of an occasional hæmorrhage so long as ulceration occurs, for it is the natural sequence of ulceration, but one hopes that in the future a means of preventing the ulceration will be discovered. It is quite possible that large doses of salad oil would saturate the sloughing Peyer's patches, and by stopping the supply of nitrogen to the bacilli so prevent further ulceration.

One may generalise and say that drugs are required only for complications. In the space at my disposal it is quite impossible for me to give an account of all the cases, for each one in itself is a clinical lecture, but some of the more interesting charts are reproduced and I have tabulated all the cases, giving the age, the sex, the highest temperature, the duration of temperature after admission, the highest pulse, the highest daily action of the bowels, the amount of alcohol given, the quantity of whey administered daily, and the length of time that the patient was kept on whey, as well as remarks on anything that made the case especially interesting, and as to complications. The general severity of each case will be gathered from these data, and I think that we may regard them as a very fairly average lot of cases, such as might come under treatment in any hospital, and thus fairly to be taken to compare the results obtained with those obtained elsewhere. Unfortunately in 21 cases the temperature charts were destroyed, so that the table is incomplete, but there are still sufficient to be of interest.

Every case of enteric fever is of intense interest, for the variety is so enormous. In the paper which I read at Canterbury, already alluded to, I enumerated 22 complications which I had met with, and I am sure that those who discussed the paper afterwards added quite as many more.

In spite of my strong advocacy for this line of treatment I do not desire to be dogmatic, for every case must be treated on its merits according to the judgment of the practitioner who is attending it, but I do, and shall always, insist that milk diet is the wrong diet and I have done my small best to prove that it is so. Theoretically I believe that enteric fever patients would do as well on an artificial whey and salad oil as on anything else, but I trust that this will be investigated in the future. So long as my patients continue to do as well as they do at present I shall be satisfied with my present treatment, but should occasion arise to make me dissatisfied I shall seek to improve the diet and shall then publish the result.

As a last word I would urge practitioners to give the treatment a fair trial and to let their results be known. I cannot but believe that the present high death-rate is unnecessary, and if this is the case it calls for radical

alteration, and we should not rest satisfied till for the whole of England our death-rate from enteric fever is a cypher. Teynham, Kent.

## ADVANCES IN THE TREATMENT OF DISEASES OF THE NOSE.

By H. LAMBERT LACK, M.D. LOND., F.R.C.S. ENG.,  
SURGEON TO THE HOSPITAL FOR DISEASES OF THE THROAT,  
GOLDEN-SQUARE.

IN the treatment of diseases of the nose very great advances have been made within recent years. For example, the subject which, perhaps, more than any other occupies the attention of the modern rhinologist is not even mentioned in Morell Mackenzie's work on Diseases of the Nose—that of the diseases of the accessory sinuses and air-cells. True, acute suppuration in the antrum of Highmore is described by John Hunter, an affection usually of dental origin and associated with swelling, redness, and oedema of the cheek. But this affection is extremely rare, whereas suppuration with no external signs is comparatively common and yet has attracted attention only during the last 15 years. Ziem, who first described it, was himself a sufferer and for years sought the advice of his colleagues in vain for a foetid discharge from the nose. At length he himself divined the cause and had his antrum opened and was cured. Being now on the look-out he soon discovered that the disease was not infrequent, and more recently it has been found that suppuration in the frontal and other sinuses is almost as common as suppuration in the antrum. Thus a surgeon became famous and opened up a new field for surgical enterprise through the fortunate accident of having his own body to study on. Truly "it is an ill wind that blows nobody good." [The anatomy of the nose and its accessory cavities was briefly described and illustrated with lantern slides and specimens.]

### SUPPURATION IN THE NASAL SINUSES.

Antral suppuration is often due to caries of the teeth, but that this is not the only cause, as has often been said, is shown by the fact that the teeth cannot possibly cause suppuration in the frontal or other sinuses. The most common causes are severe nasal catarrhs, especially when associated with infectious fevers, influenza, &c. The recent epidemic of influenza, in addition to its other sins, is probably responsible for the large number of cases of this kind seen at present, as well as for the large and increasing prevalence of nasal polypi.

An acute catarrh of a sinus is commonly associated with a nasal catarrh and if then the outlet of the sinus becomes blocked acute suppuration will result. The openings of the sinuses are small and ill-situated for drainage and a moderate amount of catarrhal swelling alone is sufficient to occlude them. The majority of these acute suppurations get well spontaneously, but in some cases chronic suppuration results. This may be due to several causes. The intensity of the original inflammation may irretrievably damage the mucous membrane lining the sinus; there may be an obstruction to the outlet of the sinus from thickening of the mucous membrane or bone or from polypi preventing a free escape of the discharge; and ultimately the persistence of the suppuration may induce changes in the lining membrane or bony walls of the sinus. Again, a chronic disease in the nose may maintain a chronic catarrh in a sinus, or the cavity may contain a foreign body—thus a tooth may be found in the antrum. The usual history of an acute case is that the patient experiences a sudden increase of the nasal symptoms with a feeling of heat, fulness, and distension in the nose and over the region of the affected cavity. There are pain and tenderness and in many cases severe neuralgia shooting along the trigeminal nerve. In a few of the more severe cases there may be much constitutional disturbance, and the soft tissues overlying the cavity may become swollen, red, and oedematous. The feeling of tension is much increased on straining, coughing, or lowering the head. After a few hours or days of increasing suffering there is a sudden discharge from the nostril on the affected side, consisting of muco-pus or pus, mixed with more or less blood, and the symptoms are at once relieved. This may be the end of the attack, or after a brief interval

the symptoms may return and increase in severity until a second discharge takes place. This cycle of events may even be repeated, but in the end complete recovery usually ensues. It is important that these cases should be recognised and appropriately treated, because if the suppuration should continue secondary changes will occur in the lining membrane and walls of the sinus which will lead to chronic suppuration and make the cure a matter of great difficulty. On the other hand, in early cases cure is usually an easy matter.

The chief object of treatment is to reduce the swelling around the opening of the cavity and to allow free escape into the nose for the pent-up discharge. The nose should be washed out by means of an alkaline lotion such as Dobell's. The formula for this is three grains each of bicarbonate of soda and borax and one and a half grains of carbolic acid with a little glycerine or sugar to an ounce of water. It is the most useful of all nasal lotions and is capable of much variation. Thus the carbolic acid may be omitted when it seems irritating, salt or chloride of ammonium may be added when a stimulant is required, and hazeline may be introduced when an astringent is required, and so on. This lotion should be used until all catarrh has ceased. Of the special measures to reduce the swelling around the opening of the cavity the best is the application of a solution of suprarenal extract and cocaine. Suprarenal extract is a recent introduction of great value in all nasal work. It increases the anæsthetic action of cocaine and prevents its absorption. It is a strong astringent to the nasal mucous membrane, rendering it white and bloodless, so that operations may be performed on the nose without the loss of a drop of blood. To obtain the full effect the solution should be freshly prepared. Ten grains of extract of the dried gland should be dissolved in 100 minims of distilled water, filtered, and 10 grains of cocaine added. Pledgets of wool soaked in this solution should be packed into the nose high up under the middle turbinate, and retained there for from 20 to 30 minutes to obtain the full action. If the frontal sinus be affected discharge soon commences to trickle down into the nose; should the antrum be at fault, the evacuation of the cavity may be facilitated by lowering the patient's head and bending it over towards the opposite side. Subsequently any hypertrophy or swelling should be removed, the depletion caused by the local blood-letting tending to prevent recurrence of the swelling. In fact, should this treatment not be effectual, incisions simply to produce local blood-letting should be tried. Subsequently, to keep the passages clear the best application is a spray of menthol, from 5 to 10 per cent., dissolved in almond oil or paroline, and hot fomentations should be applied, as they relieve the pain and are very grateful to the patient. If these measures fail active means must be adopted to secure the evacuation of the cavity. If the maxillary antrum be affected it should be punctured and the pus should be washed out by irrigation. The particular method to be adopted depends on various circumstances. If the adjacent teeth are carious they should be extracted and the antrum should be perforated from a socket with a small drill. This little operation is easily done under gas. The first molar is the site of election, as its roots are separated by a very thin plate of bone from the floor of the antrum; but should the first molar be healthy it is quite easy to reach the sinus through the socket of the second molar or either of the bicuspid teeth. Having made an opening the nozzle of an antrum syringe is inserted and the cavity is washed out with a solution of boracic acid, boiled salt solution, or other unirritating fluid. This irrigation must be repeated daily until the discharge ceases, but, as a rule, in these acute cases no pus will be seen after the first washing and after two or three days the treatment may be discontinued and the opening allowed to close. On the other hand, when no carious teeth are present and when there is no vacant space in the alveolar border the antrum should be punctured from the inferior meatus of the nose. A pledget of wool soaked in cocaine is packed in beneath the inferior turbinate and then a small trocar and cannula are passed into the nose and directed strongly outwards about half an inch behind the anterior extremity of the inferior turbinate so as to bring it into contact with the antro-meatal septum at its thinnest part. It is then pushed onward into the cavity, the trocar is withdrawn, and the cavity is washed out through the cannula. This operation has the advantage that it does not entail the sacrifice of a healthy tooth when no carious tooth or vacant space is

present, that it only requires cocaine anæsthesia, and that it does not establish a communication between the nose and the mouth. On the other hand, this opening cannot be maintained and therefore the operation has to be repeated daily or as often as necessary until a cure is established.

I have gone somewhat fully into the diagnosis and treatment of these cases as they are commonly met with in general practice and their treatment is easily conducted and very satisfactory.

*Chronic suppuration* is a much more difficult matter to treat. In the first place the single symptom is a purulent discharge from the nose and the diagnosis is difficult and in many cases impossible. One important rule may be laid down, that in every case in which there is a purulent discharge from the nose there is most probably suppuration in one of the sinuses, and further that although suppuration in the antrum, or indeed in any sinus, may be met with alone, in the majority of cases two or more sinuses are simultaneously involved. When no external sign of disease is met with the first point in determining the origin of the pus is to ascertain the position at which it appears in the nose. Thus pus coming from the middle meatus implies suppuration in the antrum, frontal sinus, or anterior ethmoidal cells. Pus appearing in the posterior part of the nose and coming from above the middle turbinate means suppuration in the posterior ethmoidal cells or sphenoidal sinus. Another method of diagnosis, reliable only in disease of the antrum, is transillumination. The patient is examined in a dark room; a small but powerful electric light is placed in the mouth and if the antra are normally clear the cheek will be lighted up, a bright band will appear along the infra-orbital margin, the pupils will be lighted up, and the patient will experience a subjective sensation of light. When the antrum contains pus the bright band along the infra-orbital margin is absent, the pupil is dark, and the patient sees no light. These signs are obviously much more definite when one antrum only is affected. But the one really reliable means of diagnosis is exploration by means of puncture and irrigation. In the majority of cases it is possible to differentiate disease of the anterior set of sinuses, namely, the antrum, the anterior ethmoidal cells, and the frontal sinus, from disease of the posterior set, the sphenoidal sinus and the posterior ethmoidal cells. If there is no definite evidence as to which of the anterior set of sinuses is involved, the antrum should be first attacked, then the ethmoidal cells, and lastly the frontal sinus. If the posterior set of cavities be affected the posterior end of the middle turbinate should be removed, and then either the posterior ethmoidal cells opened, or, the ostium of the sphenoidal sinus having been brought into view, this cavity should be washed out through its natural opening. An important rule to bear in mind is that in every case it is necessary to explore the cavities one by one until all sources of suppuration have been discovered, for commonly more than one cavity is affected.

The treatment of chronic suppuration consists, in the first place, in adopting simple measures. Any abnormality or disease of the nose should be removed and the approach to the outlet of the affected cavity thoroughly cleared. The antrum should be washed out through a simple puncture as already described. The sphenoidal sinus can be irrigated through its natural opening and attempts may also be made to pass a cannula up through the infundibulum into the frontal sinus. Should these means fail after prolonged trial the question of further operation must be discussed. In some cases the patient is better left alone; in others a radical operation must be undertaken. The affected cavity must be freely opened, all pathological conditions set up by the suppuration and tending to maintain it, such as polypi, caries, or necrosis of the walls, must be removed and means must be taken to prevent reaccumulation of the pus either by providing permanent free drainage or entirely obliterating the cavity. In the antrum a free opening is made through the canine fossa, any pathological products are removed, and then, by cutting away the wall separating the antrum from the inferior meatus of the nose, free permanent drainage is established. The canine fossa opening is allowed to close. The frontal sinus is opened through the supra-orbital margin, its anterior and inferior walls are chipped away, the lining membrane is entirely removed and the infundibulum is enlarged to admit of the passage of a large drainage-tube, and thus the sinus is entirely obliterated. The ethmoidal cells are best attacked from the nose with a sharp ring knife. The middle turbinate is first removed and then the ethmoidal cells

are thoroughly broken down and scraped away. The sphenoidal sinus is treated by enlarging its natural opening with punch forceps, such as Grünwald's, and the greater part of the anterior wall of the sinus may be clipped away. These measures are attended with a very fair degree of success, especially when it is possible to obtain complete obliteration of the sinus. They are not invariably successful, but our knowledge and means of dealing with these cases is constantly increasing, and before long better results may be expected.

Another great recent advance has been made in the treatment of *nasal polypi*. The methods of dealing with severe cases of this affection have hitherto been most unsatisfactory. Recently polypi have been ascribed to supuration in the accessory sinuses; they are, indeed, very commonly associated with it, but they may occur independently. The real cause of the frequent recurrence of polypi is disease in the underlying bone. This theory can perhaps hardly be described as new, for Morell Mackenzie relates two cases in which recurrence of nasal polypus was prevented by removing some of the underlying bone, and the view had been urged as long as 100 years previously. Dr. Woakes 15 years ago strongly advanced similar opinions. These observations, however, had been neglected, but during the last year my own investigations have again aroused the controversy and have been confirmed by others. They show that in all cases of constantly recurring polypi a peculiar form of a rarefying osteitis is present, and it is upon this that the obstinate nature of the affection depends.

The treatment therefore resolves itself into removing, not only the polypi, but also the underlying diseased bone. In simple cases the wire loop of the snare may be made to include a piece of bone as well as the polypus. In more severe cases, after the polypi have been removed, the parts may be cleansed and anæsthetised with cocaine and the bone may be cut away with punch forceps. In the worst cases more radical means should be adopted. The patient should be placed under a general anæsthetic, the polypus should be removed with polypus forceps, and then the whole ethmoidal region should be thoroughly curetted with a sharp ring knife. It is impossible to see what is being done, but if care be taken and the sharp edge of the knife be directed outwards rather than upwards there is little danger of wounding the cribriform plate, and should the inner wall of the orbit be injured no harm will result. The healthy ethmoid is firm and resistant and the knife gets little hold, but the carious softened bone is easily scraped away and the curetting should be continued until every soft piece of bone or degenerated mucous membrane has been removed. The hæmorrhage from this proceeding is free and necessitates considerable caution with the anæsthetic. It usually, however, soon ceases, but in some cases it is necessary to pack the nose. The subsequent treatment consists in irrigating the nose until healing occurs. By these means a complete cure may be obtained in the worst cases of nasal polypi in which frequent recurrence has occurred for many years under the ordinary treatment. It is not, however, an operation to be lightly undertaken. Both the operation and the anæsthetic require the greatest care and it should never be carried out in patients who are not in good health or who are more than 40 or 45 years of age.

*Trigeminal neuralgia*.—The more our knowledge of local diseases of the nose and mouth increases and the more carefully these parts are examined the more frequently this severe disease will be found to arise from a purely local cause. In fact, it is doubtful if all cases are not of purely local origin. A large number depend upon diseases of the teeth, such as Rigg's disease, or an unerupted tooth. Many others depend upon disease of the nose. Sinus supuration is a frequent cause and many a case of severe intractable neuralgia has been cured by simply opening the antrum. Another frequent cause is enlargement of the middle turbinate. This is liable to swell, and then it produces considerable pressure between the mucous membrane of the turbinate and the septum which may start a severe attack of neuralgia. Before prescribing medicinal remedies, therefore, local causes, especially in the nose and teeth, should always be sought for.

*Hay fever and paroxysmal rhinorrhœa*.—The symptoms of hay fever are well known, and an affection analogous to, but not identical with, hay fever is even more commonly met with. In these latter cases the symptoms—sneezing, nasal obstruction and profuse running at the eyes and nose—come

on regularly every morning, varying much in intensity, sometimes lasting an hour, sometimes five or six hours. The patient may have two bad attacks a day or may pass three or four days without an attack. Sometimes an exciting cause may be noted; in other cases none can be discovered. Inhaling dust, various smells such as those of roses and violets, the emanations from certain fabrics such as oriental carpets, draughts, the change from a warm room into a cold one, going out-of-doors, may in various cases set up an attack.

The treatment of these cases is identical with that of hay fever and, although it is impossible to be quite certain that a cure will be obtained in any given case, still, local treatment should always be adopted. In the first place any abnormality of the nose should be rectified, a polypus, a hypertrophied turbinate, a septal spur should be removed. Should this fail the best treatment is cauterisation of the nasal mucous membrane. By examining the interior of the nose with a probe very sensitive spots may often be discovered in some part of the nasal mucous membrane. These spots are often found in the region of the anterior end of the middle turbinate and on the opposite part of the septum. They should always be sought for, and if found should be destroyed by the electric cautery. Should this fail the inferior turbinate should be cauterised: this treatment is empirical, but by it the majority of cases may be cured and practically all of them at least temporarily relieved. These measures should be combined with the regular use of nasal alkaline lotions and in addition an oily spray, such as almond oil containing 5 per cent. of menthol, will be found extremely useful. A caution must be here added. Relief, or temporary relief, of the affection during the actual attack may always be obtained by the use of cocaine. The symptoms are relieved in two or three minutes, but the treatment has to be repeated every hour or so. Thus the remedy is a very dangerous one and especially so because in time the drug loses its effect, stronger solutions are required, and severe constitutional depression, insomnia, loss of appetite, and mental disturbances may result. In spite of this, the patient may resort to the drug because of the great relief it gives and thus may originate the cocaine habit. Further, the continued use of this drug apparently aggravates the local condition and renders it far more obstinate to curative measures.

*Asthma*.—There has been, and is, great dispute as to the pathology of asthma, and many nasal specialists consider asthma to be a purely reflex condition resulting from some pathological change in the nasal mucous membrane. I cannot assent to this proposition and would rather not express any opinion on the etiology of asthma in general. It is an undoubted fact, however, that by treating the nose alone a large number of cases of asthma may be improved and a few may be cured. The probability of a case of asthma being dependent upon nasal trouble is increased if any definite sensitive area or "cough spots" can be discovered in the nose or if, as is not very uncommon, the asthmatic attack is preceded or accompanied by the sudden onset of such symptoms as sneezing, nasal obstruction, and rhinorrhœa.

In the treatment of asthma, therefore, such conditions as nasal polypi, hypertrophied turbinates, and septal deflections should be rectified. In children adenoids should be removed. Sensitive spots in the nasal mucous membrane should be sought for and destroyed with the cautery. If no objective abnormality be found, but yet the onset of asthma be preceded by nasal symptoms, the inferior turbinates should be cauterised as in rhinorrhœa. On the other hand, if the nasal mucous membrane be healthy and there is no clear history of nasal disturbance preceding the asthmatic attack, nasal treatment should not be adopted. As I have said, the results are uncertain and there is no means of determining beforehand which cases will benefit by intranasal treatment. The most successful may be those in which there is no marked disease in the nose.

To turn to a more homely subject the large number of infallible remedies for a *common cold* are still being added to. The latest is cinnamon tabloids. It is directed that at the commencement of a cold two of these should be given every half-hour for three doses and then one every hour for the next 12 hours or until all symptoms have passed off. Apparently they do good in some cases, but I have tried them on myself without any benefit. Orthoform applied locally has also recently been recommended. This drug is a most valuable analgesic in cases of painful ulceration, especially

in the upper air-passages; it is non-poisonous and therefore may be used freely. Taken as a snuff it is said to relieve the excessive irritation of the nasal mucous membrane and thereby to stop the sneezing and excessive discharge. I have not yet had an opportunity of trying it. But in spite of all these drugs I expect that the only reliable remedy is opium or morphia in some form given in sufficient quantities to produce sleep in conjunction with the usual household remedies, which usually take the form of hot whisky-and-water or hot lemon-and-sugar as the case may be.

And now I would conclude with a caution against excessive operating on the nose. Great advantage has followed operations for nasal obstruction, and especially in children, but, as is natural, the zeal of many has outrun discretion and the number of diseases which are claimed to have been cured by the removal of adenoids is so great that the operation is in danger of becoming a panacea. This is partly due to the fact that patients nowadays rarely need encouragement to undergo operation; in fact, they are not happy till they get it, and if it is refused or postponed they go off elsewhere to have it done.

The advantage of normal nasal respiration in children is well recognised. Apart from the local relief to ear and throat troubles the effect on the general well-being is even more marked: stunted children commence to grow, the tendency to bronchitis and constantly catching cold disappears, and delicate children become strong and their intelligence even seems to increase. Should any such cause for the operation be found the removal of adenoids should certainly be undertaken. It is not likely to be followed by any ill result, although the occasional fatality which accompanies this operation should be sufficient to prevent indiscriminate operating. But in adults, in whom nasal obstruction often does very little harm, considerable care should be exercised before extensive operations are performed, and especially before the turbinates or other structures involving the loss of a large piece of healthy mucous membrane are removed. Certainly Nature is resourceful and is often equal to repairing the effects of surgical enterprise, but in many cases the dry nose and throat left after these operations puts the patient in a far worse plight than he was in before treatment.

Harley-street, W.

## THE REMOVAL OF SUPERFLUOUS HAIR BY A COMBINATION OF X-RAY EXPOSURE AND ELECTROLYSIS.

By DAVID WALSH, M.D. EDIN.,

HONORARY PHYSICIAN TO THE WESTERN SKIN HOSPITAL, LONDON, W.

THERE are few cosmetic operations more desirable from the feminine point of view than the removal of superfluous hairs from the face and other parts of the body. Short of operation various methods are in vogue, such as pulling out the hairs, shaving, and the use of depilatories. None of these plans, however, get at the root of the mischief, while they act more or less as local irritants that by stimulating the supply of blood to the part actually increase the growth of the hair. Depilatories destroy the shaft of the hair but they do not touch the hair bulb. They have been used from time immemorial, but their application would hardly be sanctioned by the modern dermatologist. Some women rub the skin smooth with pumice stone. Others prefer shaving with a safety razor—a plan that is perhaps to be approved when there is a thick downy growth of hairs too numerous to be removed by electrolysis.

The latest method of depilation before the profession is that effected by the x rays. Within nine months of the announcement of Professor Roentgen's discovery there were reported several cases of dermatitis to which I ventured to give the name of "focus-tube dermatitis" in July, 1897.<sup>1</sup>

The earliest note of shedding of hair which I have found recorded was by Mr. E. E. King of Toronto.<sup>2</sup> Since then many instances have been recorded, notably one by Professor Waymouth Reid, who lost the hair of the chest and face after four consecutive daily exposures of the trunk for 20, 40, 50, and 90 minutes respectively.<sup>3</sup> Before long the

Roentgen rays—or, rather, exposure to the focus tube—were applied for the depilation of hair. In at least one instance that came under my notice severe and extensive sloughing was caused by the exposure of a chin to the live tube. After a little time it was found that a short exposure of 10 or 15 minutes with the tube a few inches only from the surface of the skin affected the nutrition of the hair to such an extent that the hair became loose and fell out within a week or 10 days of the exposure. The hair bulbs, however, were clearly not destroyed, as the hairs were quickly reproduced. In one case reported by M. Barthelemy and M. Darien the hairs grew again in a guinea-pig that had been depilated 18 months previously by a prolonged exposure to the focus tube. Freund finds that the hair grows again on the face two months after depilation by that method.<sup>4</sup> By applying the rays, however, three or four times every six weeks it is possible, he says, to keep the face permanently hairless. Schiff has also worked on much the same lines. It is evident that any method depending on such repeated applications must be extremely tedious, and no results have hitherto been published which justify absolute success for any plan of the kind. At the same time, the application of the focus tube has to be made by skilled and cautious hands, otherwise the results may be disastrous. For one thing it is certain that the idiosyncrasies of individual patients differ greatly so far as the resulting dermatitis is concerned. Indeed, from my own observations it seemed to me long ago that the susceptibility of the individual worker might vary from day to day. The ideal exposure in depilation is that which suffices to cause the shedding of the hair with little or no apparent erythema or dermatitis. The part of the face around the area to be cleared should be protected with a mask of lead-foil. The drawbacks of depilation by the focus tube, then, are the risk of dermatitis (a small one under modern methods and in skilled hands) and, above all, the re-growth of the hair.

Electrolysis, on the other hand, is an effectual but tedious agent. It can hardly be applied in cases where there is a thick, close growth of hair, as each one has to be destroyed by the electrolysis needle. In the hands of the most skilful operator it is not always possible to direct the needle in the direction of the hair-follicle. Fortunately, from experiments conducted by Giovannini<sup>5</sup> it appears that destruction of the papilla may follow even though the needle has pierced the wall of the hair sac and cauterised the surrounding tissues. There is no need here to describe the details of this small operation. The needle is connected with the negative pole of a battery yielding from 1 to 1.5 milliampères, and the circuit is completed by pressing a sponge electrode saturated with warm salt water against the patient's skin. The circuit should not be completed until after the needle is inserted into the hair-follicle and the current should be broken before the needle is removed. The operator must insert the needle as nearly as possible in the direction of the hair-follicle. It should be kept in place for 20 or 30 seconds until little bubbles of gas appear at the point of insertion. After the removal of the needle, if the operation has been successful, the hair can be removed with gentle traction by a pair of forceps. The painfulness of the method forms one of the chief objections to electrolysis, and it varies much with the individual. To those who have the requisite patience and resolution, however, it offers the best chance of permanent removal of superfluous hairs.

Some time since it occurred to me that a combination of the two methods of focus-tube exposure and electrolysis might be of advantage. I have found the following method useful where the growth is not too thick. The exposure to the focus tube is made in the ordinary way and a week or ten days later, when the hair becomes loose, each hair is extracted and the electrolysis needle is passed into the follicle. This method means that a large number of electrolytic punctures must be made in a small area. However, with a little management the removal may be made to extend over a couple of days, and in that way it is possible to remove, so to speak, alternate hairs. Sometimes a second exposure to the focus-tube is needed before the hairs become loosened.

This combined method I have found useful in some cases, as it increases the chances of effectual cauterisation of the emptied hair-follicle. At the same time it shortens the

<sup>1</sup> Transactions of the Dermatological Society of Great Britain and Ireland, vol. iii., p. 13.

<sup>2</sup> British Journal of Dermatology, January, 1897.

<sup>3</sup> D. Walsh: The Roentgen Rays in Medical Work. London, second edition, p. 205.

<sup>4</sup> Wiener Klinische Wochenschrift, Sept. 28th, 1899, p. 966.

<sup>5</sup> Archiv für Dermatologie und Syphilis, August, 1895.

period of depilation, but, like pure electrolysis, it should not be undertaken unless the patient has enough resolution and patience to undergo the requisite treatment.

Grosvenor-street, W.

## A CASE OF SEPTICÆMIO PLAGUE IN A EUROPEAN.

By J. M. ATKINSON, M.B. LOND., D.P.H. CANTAB.,  
PRINCIPAL CIVIL MEDICAL OFFICER, HONG-KONG.

A BOY, aged 11 years, the son of a European inspector of police living at No. 8 police-station, was admitted to the Government Civil Hospital, Hong-Kong, on Sept. 9th, 1901, with the following history. He was quite well until the previous Saturday when he complained of abdominal pain. A medical man visited him on that day and prescribed castor oil; after taking this he vomited. On admission to the hospital at 9.30 A.M. his temperature was 102.4° F. He complained of pain in the abdomen and on examination the pain appeared to be chiefly in the right iliac fossa where there was on palpation a sense of resistance. His tongue was foul. His evening temperature was 102°. On examination of the blood no malarial parasites were found. On the 10th the pain was still the same and the patient was very drowsy. On the 11th a papular rash was noticed which was confined to the face, the neck, and the chest. In the evening he was delirious and he still complained of abdominal pain; there was some tympanites. As his temperature still kept up his blood was examined again, but no malarial parasites were found. On the 12th it was ascertained that during the night he had been vomiting bile-stained fluid tinged with blood. The stools were liquid and bile-stained, there was slight epistaxis, and the abdomen was still much distended and tender generally. A few malignant ring-formed malarial parasites were found on this day in the blood. On the 13th the patient seemed much worse. On examination there was evidently some fluid in the abdominal cavity. There was dulness in either flank which disappeared on change of position. For the preceding two days three grains of the bisulphate of quinine had been given hypodermically. The evening temperature was 102.8°, the pulse was 120, and there was constant vomiting. The specific gravity of the urine was 1030, with one-eighth albumin and no sugar; it gave an acid reaction. On the 14th at 6 A.M. the temperature was 105° and the patient was evidently sinking fast. He died at 2 P.M.

A necropsy was made on Sept. 15th at 9 A.M. Rigor mortis was well marked. On opening the abdomen there was some bloody ascitic fluid present. The small intestine was normal but distended. The cæcum was swollen, with hæmorrhagic extravasation into its walls, and there was a mass of enlarged hæmorrhagic glands (mæ-enteric) occupying the inner side of the cæcum and obstructing its lumen. There was also hæmorrhagic retro-peritoneal extravasation. On examining the enlarged gland tissue that and the spleen were found to be full of plague bacilli, which decolourised by Gram's method.

This case aptly shows what a perplexing disease plague is. The epidemic here has practically ceased for some weeks now, the number of cases reported from August 10th to Sept. 7th being 16, and this being the only European case during that time. The case was diagnosed as one of severe malarial colitis.

Hong-Kong.

**FRÖBEL AND CHILD STUDY ASSOCIATION.**—The second annual meeting of the Manchester Fröbel Association, with which the local branch of the British Association for Child Study is amalgamated for all meetings, was held on Oct. 18th. The report showed that there were 160 members as compared with 120 in the previous year, to which must be added 40 members of the Child Study branch. Professor Withers afterwards gave a lecture on "The Distinction between Work and Play." The educational uses of the latter were well illustrated, especially for the young child, for whom Fröbel more especially provided. Play in the child was described as the total self-activity of the child not as yet distinguished from work. A child was never so earnest as when playing, and he liked his play to be taken seriously.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### AGUE CONTRACTED IN A NON-MALARIOUS DISTRICT.

By J. LIONEL STRETTON, L.R.C.P. LOND., M.R.C.S. ENG.,  
SENIOR SURGEON TO THE KIDDERMINSTER INFIRMARY AND  
CHILDREN'S HOSPITAL.

THE mode of infection of ague has attracted so much notice of late that the following case will probably be of interest.

A woman, about 38 years of age, went to stay at Weston-super-Mare and whilst there she developed an attack of tonsillitis. During this illness she was visited by her brother who had lately returned from India where he had suffered from ague. On her return home she developed ague. Her description of the attacks is as follows: "I feel as if I was going to be ill; faintness and coldness, followed by severe shivering, during which I cannot hold anything. This cold feeling lasts about three hours and is followed by a feeling of extreme heat. My temperature is high; in one attack it was 106°. The hot stage lasts four or five hours and is accompanied by profuse perspiration which leaves me very weak and good for nothing. The attacks come on on alternate nights."

When I first saw the patient I had little doubt from her description of the attacks that she was suffering from ague, and I put her on five grains of salicylate of quinine three times a day which entirely checked them. A few weeks later when visiting in London she omitted her treatment and had a slight recurrence. At the present time, four months after her first attack, five grains of salicylate of quinine are sufficient to prevent the attacks.

In discussing with the patient the possible source of infection she naturally turned to the presence of her brother at a time when she was debilitated with an attack of tonsillitis and consequently in a susceptible condition. I explained to her how infection was often conveyed by mosquitoes and she at once informed me that she had a severe bite from an insect on the forehead during her brother's visit. There was no doubt whatever about this because it caused so much swelling that her sister inquired about it the next day. She could not remember the exact date of the bite, but she thought it was about a month before her first attack of ague.

I am not prepared to say what species of insect inflicted the wound on the forehead, but it appears to me probable that it was by that means that the poison was introduced. It may have been a mosquito secreted about the person of her brother—though as he had a new rig-out of clothes this was unlikely—or it may have been a stray member of the same species which had arrived through some other channel; but perhaps the more likely explanation is that some insect first attacked the brother and thus conveyed the *materies morbi* to the sister. If such a means of infection were to become common the presence in this country of ague subjects would be viewed with alarm.

Kidderminster.

#### A RAPID CASE OF DIABETES.

By R. E. H. WOODFORD, M.R.C.S. ENG., L.R.C.P. LOND.

A MAN, aged 23 years, came to me on Sept. 16th suffering from acne vulgaris of the face. A few of the spots were pustular. He was given boric acid ointment, and a week later the rash had much improved; he then complained of "feeling hot in his inside," but was not thirsty. He took a mixture containing bicarbonate of sodium and tincture of nux vomica for a week. On Sept. 30th his mother asked for more medicine and mentioned that he was thirsty. At my request he came to me the same day after he had done his usual work. He complained of being thirsty, but was confident that he had only been so for a few days. His bowels were confined and he felt weak. Examination revealed nothing except a raw beefy-looking tongue. His urine, however, contained sugar (no quantitative estimation was made),

with a specific gravity of 1037. On the following day he was admitted to Hitchin Infirmary under the care of Mr. R. Shillito who kindly sent me the following particulars: "He seemed rather dull and stupid when I saw him at 11 A.M. on Tuesday (Oct. 1st), but not having seen him before I naturally thought it was his normal condition. He had a dry parched tongue when I saw him in the afternoon and was, of course, very thirsty. He passed 171 ounces of urine on Wednesday but none after 6 A.M. on Thursday until shortly before his death at three in the afternoon. He was very sick and complained of cramp in his legs. The coma gradually increased from the time of his admission to his death. He had no convulsions. His bowels were very much constipated on admission and he complained of a good deal of abdominal pain, but they were freely relieved on Wednesday."

There is nothing of importance in his family history and he had had no severe illness. He indulged too freely in alcohol at times. It is noteworthy that he was able to work on the day previous to the onset of coma and he had been cycling on the Sunday before.

Ashwell, Baldock.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

#### RICHMOND (SURREY) AND HESTON AND ISLEWORTH JOINT HOSPITALS. DOCKWELL SMALL-POX HOS- PITAL, HOUNSLOW.

TWO CASES OF CONFLUENT SMALL-POX AND ONE CASE OF  
DOUBTFUL MODIFIED SMALL-POX (VARIOLOID).

(Under the care of Dr. J. H. CROCKER.)

AT the present time, when small-pox is somewhat prevalent in London, the following interesting cases of the disease are of special value. The first case illustrates the severity of the disease in pregnancy and the second case the bad prognosis when the disease has been contracted just before birth. The third case demonstrates the very great difficulty there may be in diagnosing small-pox when it occurs in patients who have already been vaccinated. It is sometimes practically impossible to make a diagnosis without the aid of a history of infection and the subsequent progress of the case.

CASE 1.—A married woman, aged 39 years, was admitted into hospital on the evening of Sept. 25th, 1901. The patient had been confined of a male living child on the 22nd. She had noticed some spots on her face and body the day before her confinement, but she thought that it was possibly chicken-pox as two children in the same house had been suffering from this disease (?). The medical officer of health of Heston and Isleworth (Dr. E. J. Steegmann) saw the patient in consultation on the 25th and advised her immediate removal to the Dockwell Hospital. Dr. Crocker, together with Dr. Steegmann, saw the patient on the 26th and found well-marked small-pox in the vesicular stage confluent on the face, hands, arms, and chest. There was also evidence on the palate and buccal mucous membrane. There was no evidence of peritonitis; there were some lochia. The temperature was 105° F. The patient rapidly became worse, the lochia ceased, and she was semi-conscious on the 27th. On the 28th the eruption on the face was somewhat livid in colour, the pocks were all merged, and there were depressions of umbilication around the lips and the alae of the nose. The features were unrecognisable; the face, throat, and tongue were swollen. The hands and arms were swollen, the eruption on the extremities was coherent, giving an appearance of boiled sago grains. The patient was unconscious. On the 29th her general condition was worse. There was difficulty in swallowing, the tongue and lips were typhoid-like, and there were sordes on the teeth. There was some hæmorrhage

in the pustules on the face around the mouth. The eruption was pustular. The breathing was rapid. The patient died on the 30th at 2.25 P.M. As regards the temperature this gradually dropped from 105° at the commencement of the illness to 99° on the 30th.

CASE 2.—The infant child of the patient in the above case was admitted into the hospital along with his mother. He was vaccinated by Dr. Steegmann on Sept. 26th and at a later stage by Dr. Crocker. No result followed on either occasion. The child was, as already stated, born on the 22nd and he remained well until the 30th when he became feverish and vomited his milk. On Oct. 2nd a few spots were noticed on the face and on the 3rd there were several spots all over the face, body, and extremities, shotty in character to the touch. On the 4th the spots were larger and more profuse. On the 5th the eruption was confluent on the face and on the arms and hands, and on the 7th it was very shotty all over, being vesicular on the face. On the 9th the eruption was umbilicated and was getting pustular on the face; there was large vesicular eruption on the extremities. On the 11th a pustular eruption was present all over the face; there was some hæmorrhage in the pustules around the lips and the eruption was becoming pustular on the body. On the 12th the infant died at midnight. The temperature dropped from 103° F. at the commencement of the illness to subnormal on the day before death.

CASE 3.—A man, aged 25 years, was admitted into hospital on Sept. 29th. At the request of a general practitioner Dr. Crocker saw the patient before his removal. The history given was that on the previous day he had not felt well and that he had had slight pain in the back and had vomited. He had not been near any infectious disease as far as he was aware, but he had been "knocking about" London during the past month. On the morning of the 29th he did not feel well and he noticed that his face was covered with spots, so he sent for his medical attendant. At the time of Dr. Crocker's visit there was a profuse papular eruption all over the forehead and face; many discrete papules were present on the extremities and trunk, particularly on the back, over the shoulders, and extending up to and amongst the roots of the hair. The eruption was shotty to the touch. The temperature was 103° F. The patient had not been revaccinated, but there were two well-marked cicatrices (area about half an inch), the result of vaccination in infancy. The patient was revaccinated in four places by the public vaccinator and was removed to Dockwell Hospital and placed in the observation block on the evening of Sept. 29th. On the following day the eruption was more marked, being very shotty. The temperature was 102°. On Oct. 1st there were some spots on the face which were vesicular. The temperature was 101°. On the 3rd similar spots were observed on the back and chest. The temperature was 100°. On the 4th many of the spots on the face and elsewhere were disappearing, not having gone beyond the papular stage. The temperature was 99°. On the 5th there were slight brownish scabs on some of the pocks on the face and back; many others were drying up. The temperature was 99°. On the 7th one pock on the abdomen was large, umbilicated, and pustular; the others were drying up and disappearing. The temperature was 99°. On the 10th the face was nearly clear excepting for five or six slight superficial pittings, each slightly moist at the bottom. The pustule on the abdomen was scabbing. The temperature was normal. On the 12th there were a few scabs on the trunk; the remainder had dried up and almost disappeared. The temperature was normal. The patient was allowed to get up. In this case vaccination was for some days apparently without result, but slight papules appeared on three of the insertions on the fifth day. These three gradually developed and reached on the thirteenth day the stage usually arrived at in eight days. The condition on Oct. 12th was that one pock was of the size of a threepenny-piece and the other two were slightly smaller, a slight red zone being around each—that is, just in the stage when one in the old days took "matter" from the arm.

Remarks by Dr. CROCKER.—The patient in Case 1 had never been revaccinated, but she thought that she had been vaccinated when she was an infant. There was one doubtful cicatrix on the right arm, but owing to the eruption it was impossible to be certain.

As the eruption in Case 2 appeared 10 days after birth it is probable that the child contracted the disease in utero. Dr. Steegmann vaccinated two other patients from the same

lot of lymph as he used for this infant, and as these took well it is probable that the advanced stage of incubation of the disease prevented the vaccination from having any effect.

As regards Case 3 the question is, Was this a case of varioloid or of chicken-pox? There was no evidence of syphilis. Chicken-pox generally affects children; this patient was 25 years of age. In chicken-pox the temperature is very little raised in adults, as a rule, and quickly regains the normal; the temperature in this case was 103° to begin with and ended in a lysis, dropping about a degree each day to 99° and then, after remaining at this for three days, dropping to normal. In small-pox the rash generally comes out all at once in the same region, as it did in this case; whilst in chicken-pox the papular eruption comes out in a series of showers at daily or longer intervals, which did not occur in this case. In chicken-pox there is no, or very little, rash on the face as a rule; in this case the eruption was most profuse on the face, many, however, aborting in the papular stage. In one respect this rash simulated chicken-pox, being profuse over the shoulders and up to the roots of the hair at the back, a few spots being amongst the hairs. In two instances the papules formed crescents, one crescent being on the forehead and one on the abdomen, said to be characteristic of small-pox (Marson). Only one pock went the cycle of non-modified small-pox. Notwithstanding the fact that three out of the four vaccination insertions took, after some delay—which sometimes occurs with calf lymph under normal conditions—the case appears more like varioloid than chicken-pox.

### LEICESTER INFIRMARY.

#### TWO FATAL CASES OF PERFORATED DUODENAL ULCER.

(Under the care of the late Dr. J. ST. T. CLARKE and Mr. G. C. FRANKLIN.)

THE etiology of ulcer of the duodenum is very obscure. In some cases a duodenal ulcer is associated with ulceration of the stomach, and therefore it may be considered as probably produced by similar conditions. Against this view is the rarity of duodenal ulcer in women, though of the three cases recorded below two of the patients were of the female sex. Dr. Leo Dickinson<sup>1</sup> maintains that the women in whom it occurs are not young, but in both the female cases recorded below the age was 20 years. The association of duodenal ulcer with burns was first pointed out by Mr. Curling, but it is apparently rarer to-day than it was formerly. It has been suggested that the ulceration is the result of the excretion of septic substances absorbed from the large suppurating surfaces met with in burns and the occurrence of certain cases in which duodenal ulcer appears to have resulted from extensive internal suppuration favours this idea. Within recent years many cases have been recorded where hæmorrhage from the stomach and duodenum has occurred after operations, not necessarily on the abdomen—for instance, Eiselsberg<sup>2</sup> reported a case in which the hæmorrhage followed an operation for malignant disease of the tonsils and cervical glands. It is possible that there is some connexion between such cases as these and duodenal ulceration. For the notes of the following cases we are indebted to Dr. F. Bolton Carter.

CASE 1.—A young woman, aged 20 years, was admitted into the Leicester Infirmary on Jan. 5th, 1901, under the care of the late Dr. Clarke. The patient had had pain and vomiting after food for several months. 20 hours before admission she had been suddenly seized with severe pain in the abdomen and collapse. On admission she was pale and somewhat collapsed. Her abdomen was distended with a tympanitic note all over. There were some increased resistance and tenderness in the epigastric region. The abdomen was opened at once in the mid line above the umbilicus, and a perforated ulcer on the anterior wall of the stomach near the great curvature was found. This was stitched up with double rows of Lembert sutures. Another opening through the abdominal wall was made below the umbilicus, the peritoneal cavity was irrigated and wiped out, and drainage-tubes were inserted. The patient appeared to be doing extremely well for the next two days, and then vomiting commenced, with a great deal of pain in the abdomen. Signs of general peritonitis now became present and she died on Jan. 10th.

*Necropsy.*—On opening the abdomen post mortem it was found that there was general septic peritonitis. The stitched peritoneum over the gastric ulcer was firmly adherent, tearing apart with some difficulty. The appendix was healthy. On the anterior surface of the second part of the duodenum a perforation of about the size of a threepenny-piece was found. There were no other ulcers in the stomach or intestines.

CASE 2.—A man, aged 45 years, was admitted into Leicester Infirmary on Nov. 7th, 1900, with a history of having passed no urine for six days. He complained of slight pain in the right lumbar region. On the third day after admission, no urine having been passed, the right kidney was explored through the usual lumbar incision. The kidney was incised but no stone was found, and the hæmorrhage being severe the wound was plugged. On the next day the plugs were removed and a tube was inserted, urine coming freely through the wound. On the third day after the operation the patient passed seven ounces of urine per urethram. For the next seven days none was passed by the urethra, when 28 ounces were passed, and from this time he continued to pass a fair quantity daily. The quantity of urine from the wound now gradually decreased and the wound healed in about six weeks' time from the operation. Five weeks after the operation he had a severe rigor with a temperature of 105° F., and his temperature kept going up with rigors for about a week, during which time he complained of great pain on passing urine. His bladder was sounded for stone with negative result. His temperature now became normal and he was discharged on Jan. 1st, 1901, apparently well.

On June 1st he was readmitted under the care of Mr. Franklin with the history that eight days before he was suddenly seized with acute pain in the abdomen; he had been in bed since, had not vomited, but had had some diarrhoea, and had noticed that his abdomen had become swollen. There was no history of pain after food. On admission he had an anxious expression and his eyes were sunken. The pulse was 130 and small and the temperature was normal. The abdomen was very distended but not tender and it moved slightly during respiration. There was no liver dullness or dullness in the flanks. There was a tympanitic note all over. Perforative peritonitis being diagnosed, the abdomen was opened in the median line, mid-way between the pubes and the ensiform cartilage. The abdominal cavity was found to be full of fecal smelling pus, and the incision was then enlarged downwards and the appendix was sought for; this was found to be inflamed and was removed. The patient's condition being very bad the peritoneum was rapidly flushed out and the wound was closed, a drainage-tube being inserted. The patient died five hours after the operation.

*Necropsy.*—At the post-mortem examination a large perforated ulcer on the anterior wall of the first part of the duodenum was found. On opening the duodenum two other large ulcers were seen, one opposite the perforation involving all the coats except the serous, and the other a little lower down involving the mucous coat only. There were two small superficial ulcers in the stomach. The lower lobe of the left lung was collapsed. The right kidney had some scar-tissue from the old incision. There was no trace of calculi. Two small calculi were present in the renal substance of the left kidney.

*Remarks by Dr. BOLTON CARTER.*—I met with a case at the Royal Halifax Infirmary which might well be narrated in connexion with the two cases just recorded. A young woman, aged 20 years, was admitted into the Royal Halifax Infirmary on Oct. 29th, 1900, with a large tender fluctuating mass in the right iliac region. The temperature was 101.6° F. An abscess in connexion with the appendix being diagnosed Dr. E. West Symes, under whose care the patient was admitted, asked me to operate. An oblique incision internal to the right anterior superior iliac spine was made and a large quantity of foul-smelling pus was let out. The abscess cavity, which appeared to be well shut off from the general peritoneal cavity by adhesions, was flushed out and a cursory examination failing to discover the appendix, the wound was partially closed with silkworm-gut sutures and drained with a rubber tube. This was dressed twice daily and the patient's condition improved rapidly until Nov. 8th, when she complained of severe pain over the abdomen, not localised, and commenced to vomit. The pulse was 120 and she was rather collapsed. On the next day on dressing the wound some blood appeared to come from the upper and deeper part of it. Signs of general

<sup>1</sup> Transactions of the Pathological Society of London, 1895.

<sup>2</sup> Archiv für Klinische Chirurgie, 1899, vol. lix., part 4.

peritonitis rapidly supervened and the patient died on Nov. 10th. At the post-mortem examination it was found that there was well-marked general septic peritonitis. The appendix was in a sloughing condition, lying deeply over the pelvic brim, with no pus in its immediate neighbourhood. There was some blood-clot in the right lumbar region of the peritoneal cavity which appeared to have come from a perforated ulcer on the anterior surface of the second part of the duodenum. Some blood-clot was also present in the duodenum. There was no other ulceration in the duodenum, stomach, or intestines. There had been no history of previous gastric trouble.

In the case at the Royal Halifax Infirmary and in the first of the two cases at the Leicester Infirmary the patients were young women, whereas duodenal ulcer is more frequently met with in men. In both cases there was a septic condition in the peritoneal cavity which appeared to be doing well when the fatal complication occurred, and in both the duodenal perforation was situated in exactly the same position. In neither case was the perforation diagnosed, extension from the original seat of trouble being suspected, although in the first case it might have been; the cause of the hæmorrhage from the wound, however, was by no means obvious.

In Case 2 at the Leicester Infirmary it is difficult to connect the renal trouble for which this patient was first admitted in any way with the peritonitis causing his death. Was it possible that the abdominal mischief was due to an acute appendicitis, the ulceration in the duodenum and stomach being secondary to the septic peritoneal condition, as probable in the other two cases? It appears to me more likely that the duodenal perforation was the primary lesion and the inflamed condition of the appendix was due to the general peritonitis, the inflamed gut allowing organisms to escape through the walls and giving rise to the fecal odour of the pus. Another interesting point is the long duration, eight days, and the fact that the patient with his abdomen full of stinking pus *walked* into the surgery. The presence of the large quantity of fluid in the abdomen was completely masked by the great distension of the intestines. The complete absence of all tenderness and the definite movement of the abdomen during respiration are in my experience uncommon. The fact that no trace of calculi was found post mortem in the right kidney and that two were found in the left kidney makes one wonder whether the wrong kidney was explored at the first operation, and whether the pain on the right side was due to duodenal ulceration at that time. The man seemed quite positive that he had never had any pain after food, or other symptoms, at any time, although it is difficult to imagine that so much ulceration in the duodenum and stomach could have existed for any length of time without giving rise to symptoms. This appears to me rather in favour of the view that some, at all events, of the ulcers followed the septic condition of the peritoneum.

After looking through some of the literature on the subject I have been able to collect 59 published cases of perforated duodenal ulcer. In these cases 27 of the patients died without operation, the lesion being found post mortem. The remaining 32 cases were operated upon and 11 of the patients recovered. With the above three cases this gives a mortality of about 82.3 per cent.

## Medical Societies.

### MEDICAL SOCIETY OF LONDON.

#### *Typhoid Fever in South Africa.*

A MEETING of this society was held on Oct. 28th, Dr. W. H. ALLCHIN, the President, being in the chair.

Dr. A. ELLIOT and Dr. J. W. WASHBOURN communicated a paper upon Typhoid Fever in South Africa. They analysed the records of 262 cases which were admitted into the Imperial Yeomanry Hospital at Deelfontein and then compared these with Dr. T. B. Poole's cases at the Emergency Hospital at Maidstone during the epidemic of 1897 and with other statistics at the Metropolitan Asylums Board hospitals and the Johns Hopkins Hospital. Their object was to ascertain whether the type of fever in South Africa was the same as that occurring in England and America. The mortality of their cases was 13.7 per cent.—practically the same as that at the Metropolitan Asylums Board hospitals

during the year 1900, and that of the Worthing epidemic, but almost double that of the Maidstone epidemic and the Johns Hopkins Hospital cases. The incidence of relapse was 11 per cent.—practically the same as that of other statistics in England and America. They pointed out that early removal of the patients and improper feeding on the journey predisposed to relapse. The average interval between the end of the primary attack and the commencement of the relapse was 10.8 days, which appeared to be similar to that of other statistics. The longest interval between the end of the attack and relapse was 31 days. None of their cases which relapsed died. In 12 of their cases there was a history of a previous attack of enteric fever, an incidence of 4.5 per cent. Dr. Crombie had recorded an incidence of 6 per cent. amongst 150 officers who had been invalided from South Africa. The frequency of second attacks they attributed to the constant exposure to infection and to privation experienced by the patients. The mortality was 10.7 per cent. in 186 patients who had not been inoculated, while the mortality was 16 per cent. among 25 patients who had been inoculated. Adding together cases recorded at other hospitals the mortality among 120 cases inoculated was 7.4 per cent., and among 556 cases not inoculated 10.9 per cent. They did not consider that this difference pointed to any marked beneficial influence of inoculation. With regard to the influence of the inoculation upon the incidence of the disease, 59 of their staff were inoculated, of whom four contracted enteric fever. 25 were not inoculated, and of these four also contracted enteric fever. The four cases among the non-inoculated who contracted the disease came from among the dressers who were younger than the rest of the staff. Adding together various other statistics they found that of 224 persons inoculated the incidence of attack was 11.4 per cent.; and of 157 persons not inoculated the incidence was 14.6 per cent. From these figures they drew the conclusion that inoculation was not of any practical value in preventing the disease. They drew attention to the considerable risk of contracting enteric fever incurred by persons engaged in attending to the sick, the incidence of attack among them being 12.7 per cent. Hæmorrhage amounting to several ounces of blood occurred in 6.1 per cent. of their cases; the incidence corresponding about to the average. Half of their cases of hæmorrhage died, a much higher percentage than occurred in England or America. Phlebitis occurred in 5.6 per cent., the incidence at Maidstone being 3.8 per cent., in Caiger and Goodall's statistics 3.4 per cent., and in Osler's 1.9 per cent. The latest date of the appearance of phlebitis after the end of the attack was 30 days. Pneumonia occurred in 3.05 per cent. of the cases, the mortality being 50 per cent. Peritonitis, perforation, and parotitis occurred in about the usual proportion. There was constipation in 42.7 per cent. of cases. At Maidstone it occurred in 50 per cent. of the cases, at the Johns Hopkins Hospital in 34 per cent., and at the Edinburgh and East of Scotland Hospital in 37 per cent. It thus followed that constipation was more common both in South Africa and in England and America than was usually imagined. Rapid pulse was frequently observed in patients who had been previously exposed to fatigue, and there was often cardiac collapse quite out of proportion to the severity of the attack. In two cases of convulsions one was attributed to the administration of strychnine. Abdominal pain, sometimes so acute as to suggest perforation, occurred in several cases. In several cases there was difficulty in micturition at an early stage of the disease. Cases of appendicitis immediately preceding and immediately following enteric fever were recorded. A case of hepatitis was also described. Twenty-one cases associated with dysentery were recorded as arising during the attack or during convalescence and it was a symptom of serious signification, the mortality being 33.3 per cent. Rigors were observed in 11 cases; in two of these they were due to malaria, the parasite having been discovered in the blood. Arthritis was not uncommon during early convalescence. In a limited number of cases it was due to rheumatism. In the others it appeared to be allied to the arthritis occurring in scarlet fever. Other complications, such as tender toes, epistaxis, pericarditis, and eruptions of different kinds, were considered. The conclusions drawn by Dr. Elliot and Dr. Washbourn were that the type of disease in South Africa was practically the same as that met with in England and America, and that inoculation was of little practical value.

Dr. WILLIAM CAYLEY, referring to the causation of the

disease, said that although in this country almost all the epidemics were due to contamination of the water-supply it was clear that the means of infection in the tropics was frequently by other agents, such as dust and flies. It would be of interest to know if the clinical type of the disease varied with the different modes of infection. He congratulated Dr. Elliot and Dr. Washbourn on the low mortality. He considered that the evidence in favour of the immunity conferred by inoculation was sufficiently strong to make it desirable that it should continue to be used.

Professor A. E. WRIGHT (Netley), referring to the question of inoculation, said that although the general circumstances in South Africa were such that the results were not so favourable as those obtained from India, yet he was of opinion that some benefit was obtained from inoculation, however bad the general surroundings. He certainly considered that inoculation was advisable for India. In judging of the statistics there were several points to be taken into consideration. One of the most important of these was as to how long the patient had been inoculated. There was a negative phase which often followed an excessive dose, and he quoted the case of a man who had been inoculated three times and yet got typhoid fever. He himself had had three injections against Malta fever and yet he got the disease. It was certain also that the injection would only protect for a short time and he quoted statistics proving the value of being inoculated twice. He said that it was becoming evident that the dose had to be carefully adjusted and he now gave a small dose and repeated it, and in this way he avoided the negative phase. It was certain, also, that in some cases the injection afforded no protection, as was shown by the bactericidal property of the blood. He did not consider that age made any essential difference to the incidence of the disease.

Surgeon-General HENRY CAYLEY quoted statistics from the Scottish National Hospital, South Africa. He said that it was often difficult to obtain evidence from the soldiers as to whether they had been vaccinated or inoculated. Of the 54 persons who composed the first section of the hospital all but three were inoculated twice, two were inoculated once, and one not at all. Not one of the 54 got enteric fever though exposed to infection, and of these 25 were medical students between 19 and 24 years, the most susceptible age. In the second section, out of 102 persons 74 had been inoculated (some twice, some only once); of these five had enteric fever. Of these five, three had not been inoculated and two had been inoculated. Of 35 nurses 32 were inoculated twice, two were not inoculated, for they had recently had enteric fever, and one refused to be inoculated and she became infected with enteric fever. He certainly thought this evidence proved the value of inoculation for a certain time, possibly from five to six months. He believed also that inoculation made the attacks less severe. The cases of arthritis met with arose (he believed) rather in association with Malta fever than with enteric fever, and he thought the former fever occurred more frequently than was generally recognised. He said that the blood examination of the members of the first section of the hospital some months after they had been in South Africa still gave a high reaction, nearly all these having been inoculated twice; in the second section, however, which came out later, the reaction was poor, seeming to point to the fact that the inoculation had not been so efficiently carried out.

Dr. HOWARD TOOTH said that his figures, though small, were favourable to inoculation. He thought that the more severely the person reacted to the inoculation the less likely was he to be immune, and in Bloemfontein officers who had had severe reaction did not seem to be protected. With regard to immunity he classed individuals under three heads: (1) persons who were naturally immune; (2) persons who could be rendered immune by inoculation; and (3) persons on whom no immunity could be conferred. He believed that most individuals belonged to the second group.

Dr. H. D. ROLLESTON said that with regard to inoculation it was clear that it did not absolutely protect, but the statistics seemed to show that fatal results did not occur so frequently in the inoculated as in the uninoculated. It was important to take into consideration the interval elapsing between the inoculation and the attack of typhoid fever, and this had been on the average 38 weeks. Relapses and second attacks had been of common occurrence. He believed that there were several different strains of the typhoid bacillus and that an individual infected with two or more strains was not proof against other strains. He thought that the serum for inoculation should be prepared with mixed strains from

as many different sources as possible. He pointed out that although thrombosis was common yet there had been no case of pulmonary embolism.

Surgeon-General MUIR said that before accepting inoculation as of value far more statistics were needed. He thought that the source of enteric fever, though commonly water, was often conveyed by other means.

Dr. E. W. GOODALL said that with regard to causation too much stress had been laid upon the water-supply, and he was convinced that this was erroneous, for many cases arose in those attending the sick. All the complications which had been mentioned as occurring in South Africa after enteric fever he had seen in England, and he had also seen ulcerative colitis follow on an attack of typhoid fever.

Dr. WASHBOURN, in reply, said that although enteric fever could be contracted in different ways he could not say that the clinical type of the disease was different. The test to which inoculation had been put in South Africa had been severe, but it was in those cases where persons were frequently exposed to infection that it should be of greatest service; he did not consider that it should be resorted to in England where the sources of infection were comparatively few. Neither did he think that the inoculation should be lightly undertaken, for he had seen an officer laid up for three weeks with pyrexia after injection. He did not consider that the immunity of an individual could be estimated by the bactericidal capacity of his blood. He regarded the arthritis which occurred in the same light as the arthritis which occurred after scarlet fever. He suggested that the thrombosis which was of frequent occurrence might be due to the deficiency of salts in the food.

## CLINICAL SOCIETY OF LONDON.

### *Exhibition of Cases.*

A MEETING of this society was held on Oct. 25th, Mr. HOWARD MARSH, the President, being in the chair.

Dr. RAYNER BATTEN and Dr. LEONARD GUTHRIE showed a boy, aged 12 years, with Right-sided Hemiparesis and Atrophy of the Left Optic Disc. He had fractured his left femur in October, 1900, and whilst laid up had had a doubtful attack of acute rheumatism. In February, 1901, he noticed weakness (gradual) of the right arm and of the legs, with difficulty in writing and in walking. When seen on April 30th, weakness, ataxy, and intention tremors were noted in the right arm. The right leg was wasted, the knee-jerk was exaggerated, ankle clonus was marked, and a typical Babinski's plantar reflex was present. Sensation was normal. A faint presystolic bruit was present. The veins of left optic disc were engorged, but there was no swelling of the disc. On June 28th the condition of the discs was as follows. The left optic disc was pale and excavated. The cribriform plate was exposed at the bottom of the excavation. The disc was not filled in or opaque. There was no blurring of vessels or of the margins of the optic disc. There was a well-marked central scotoma for white (no colour perception). The retina in the macular area and up to the optic disc showed signs of disturbance and a number of fine white dots. The veins were somewhat large, dark, and tense. The right optic disc was normal. No hemianopsia was present. On Oct. 1st the paresis was much improved and the vision of the left eye was very slightly impaired. It was suggested that the patient might have had thrombosis in the neighbourhood of the left motor tract with retro-bulbar neuritis of the left optic nerve, or the condition might be due to early disseminated sclerosis.—Dr. F. E. BATTEN said that he did not think the condition was due to disseminated sclerosis. He had seen a similar case in a female, aged 25 years, who suddenly became hemiplegic on the right side with aphasia and complete blindness in the left eye. The patient died some two years later and at the necropsy it was found that there was softening in the distribution of the left middle cerebral artery and the left optic nerve was completely degenerated owing to thrombosis of the vessel supplying this region.—Dr. BATTEN, in reply, said that he thought the presence of a central scotoma pointed to a vascular lesion.—Dr. GUTHRIE said that the remarkable recovery which the boy had made seemed to him to be in favour of a disseminated sclerosis rather than a vascular lesion.

Dr. J. P. PARKINSON showed a case of Glénard's Disease.

The patient, a married woman, aged 40 years, had had five children. She complained of symptoms due to stenosis and regurgitation of the mitral valve and cardiac dilatation. The abdomen was very large and flabby from relaxation of the muscles of the abdominal wall. When lying on the back the lower limit of the liver could be felt a finger's-breadth below the level of the umbilicus and its dullness above extended to the costal margin, but in the erect position it fell to a much lower level. It could be freely moved about between the two hands. The spleen was also felt to be somewhat enlarged, prolapsed, and moveable. The right kidney could be easily felt as a moveable mass below the right limit of the liver, from whence it could be pushed back into the loin. The left kidney appeared to be normal in position. The stomach seemed to lie somewhat below its usual level and to be slightly enlarged. For a week in the middle of June the patient suffered from a constant pain in the right loin which extended from thence to the anterior superior iliac spine, and during this period the urine, which previously had contained only a trace of albumin, diminished to half its usual amount and contained two-fifths of albumin. When the pain ceased the albumin, and for a few days the amount of urine, increased to three or four pints daily. This temporary interference with the functions of the kidney was the only symptom referable to the large amount of visceropertosis present.

Dr. SEYMOUR TAYLOR showed a case of Congenital Absence of both Clavicles. The patient was a man, aged 20 years, in whom both clavicles were incompletely developed. On each side the sternal ends, with the attachments of the sterno-mastoid muscles thereto, could be felt, and there appeared to be some attempt at development towards the acromial end. The intervening space was occupied by what appeared to be fibrous structure, possibly representing the costo-coracoid membrane. The upper limbs were not impeded in their various movements; indeed, the patient had no previous knowledge of his defects. On the other hand, he could throw a ball and play cricket as well as most youths. Both shoulders could be so far approximated to the middle line that the eminences of the deltoid muscles could be made to touch each other. The condition thus approached that of the carnivora.

Mr. F. C. WALLIS showed a case of Hydrops Articulii in the Knee-joint of an old man who was the subject of well-marked Osteo-arthritis. The ligamentum patellæ had been ruptured; previously to that the patella had been twice fractured; it could now be felt some distance up the thigh. In spite of this condition the man was able to get about with the aid of a stick. The large fluid swelling in front of the joint had been aspirated three times and pressure had been applied. This had had no effect in reducing the fluid. The comparative ease with which the man got about with so disorganised a joint was no doubt helped by this fluid condition of the joint cavity.

Mr. WALLIS also showed a case of Acute Intussusception in a child, aged seven months (ileo-cæcal variety) successfully treated by operation. This patient was admitted to the Metropolitan Hospital on July 21st with somewhat obscure symptoms of intestinal obstruction. The operation was performed 33 hours after the first onset. An incision in the upper part of the right semilunar line was made and the abdomen was opened. The intussusception, which occupied the situation of the hepatic flexure of the colon, was drawn out of the incision and by gentle traction and pressure it was gradually reduced. The intussuscepted gut was seven inches long, quite collapsed, somewhat congested, and thickened. After reduction the intestine was returned to the abdomen and the abdominal incisions were closed by one row of silkworm-gut sutures. The operation lasted for 20 minutes. The bowels acted next day. Recovery was uninterrupted except that the infant was unable to digest any peptonised or other milk, but when the mother recommenced to feed the child this trouble ceased, and the little patient was discharged on August 8th quite well.—Mr. A. E. BARKER suggested that Mr. Wallis should describe the stages of the operation, for he considered it of great importance that only a small opening into the abdomen should be made and the gut manipulated with the first finger in the abdomen and the thumb on the abdominal wall.—

Mr. WALLIS, in reply, said that in this case it had been impossible to reduce the intussusception within the abdomen and therefore it had to be brought out and it was then easily reduced. One of the most interesting features of the case was, however, the congestion which was present; this was

so extreme that had he not on a previous occasion seen a similar condition in a child who made a good recovery he would have thought it hopeless to return the gut.

Mr. H. B. ROBINSON showed a case of Leontiasis Ossea, (? "Henpuye"). The patient, a man, aged 26 years, had very hard, almost symmetrical swellings on the nasal bones and adjacent parts of the superior maxilla; the skin was not involved. The nasal chambers were almost completely blocked, the turbinates being pushed towards the septum. The swelling first appeared on the left side in 1897 and progressed slowly. There was no pain and no watering of the eyes. There was no history of syphilis. He had been in South Africa since the lesions appeared. The remarkable feature of the case was its strong likeness to "henpuye" or "dog-nose" of Cape Coast Colony.—Mr. CHARTERS SYMONDS suggested that the masses should be removed by operation. He referred to a similar case of about from eight to 10 years' duration, in which he had made the usual incision for removal of the upper jaw and chiselled away the bone and opened into the post-nasal space. The patient made a good recovery and there was no recurrence. He mentioned another case in which improvement had taken place.—Mr. ANTHONY A. BOWLBY said that under the heading "Leontiasis Ossea" three somewhat distinct conditions were described—firstly, a condition in which many bones were affected; secondly, a condition limited to the upper jaw; and thirdly, a localised condition closely allied to the "henpuye" which was met with in South Africa.—Mr. C. R. KEETLEY said that he had seen a patient with a similar condition which was unilateral. This he had removed, with the result that the patient made a good recovery and had had no recurrence of the growth. In another case of a young girl he had also removed the bone by an incision within the mouth, and that patient also made a good recovery with no deformity.—Mr. ROBINSON, in reply, agreed with Mr. Bowlby with regard to the nomenclature of the disease, and considered that an operation was certainly advisable in this case.

Mr. CHARTERS SYMONDS showed a case of Pulsating Tumour of the Sacrum. The patient, a man, aged 65 years, went to Guy's Hospital complaining of pain in the sacrum. On rectal examination a pulsating tumour could be felt high up covering the whole width of the sacrum, and reaching rather further to the right. The pulsation could be controlled by compression of the aorta. Through the sacrum a loud systolic bruit could be heard. The patient had also outward displacement of the left eyeball due to a formation (growth?) in the inner side. From the nose he had a polypus removed a year or more ago. It was suggested that pulsating tumour was a growth secondary to that in the ethmoid.—Mr. CECIL LEAF asked if there was any relation between the polypus removed from the nose and the growth.—Mr. WALLIS asked about the duration of the condition and suggested the possibility of the condition being a naevoid one.—Mr. BARKER suggested that the patient should be examined with a speculum. He recalled a case in a man, aged 40 years, who had very extensive naevoid growth in the rectum. He had had one or two attacks of hæmorrhage as a child. He died from hæmorrhage from the rectum.—Mr. CHARTERS SYMONDS, in reply, said that the ocular condition had been present for nearly a year. There had been an error in saying that a polypus had been removed from the nose. There had been a suppurative condition and that had been treated. The rectal examination did not suggest a naevoid condition. He thought it most likely that the condition was either a pulsating sarcoma or an aneurysm.

Mr. CHARTERS SYMONDS also showed a case of Syphilitic Myositis of the Extensor Cruris. This patient was exhibited last session. He was again exhibited in fulfilment of a request made at that time. Doubt was expressed as to the nature of the case, some thinking the condition to be a new growth. In the interval rapid improvement had taken place, preceded by involvement of the skin. The patient was unable to submit to the treatment of rest and for a time was without medicinal treatment. When he returned there were effusion into the knee and signs of advancing disease, and the skin was broken in several places. Large doses of iodide produced rapid improvement, so that the diagnosis could no longer be doubtful.

Dr. H. E. SYMES THOMPSON showed a case of Arthropathy in a case of Bronchiectasis. The patient, a single woman, aged 26 years, first showed symptoms of chronic bronchitis about 18 months ago, the sputum being offensive from the first. Twelve months ago the sputum became more

offensive and more copious, and about this time the ankle-joints first became affected. Subsequently the wrists and knees were involved. Both wrists were swollen, stiff, and tender. The fingers were also somewhat swollen. There was much muscular atrophy. The knees were slightly swollen and contained a little fluid. The ankles were enlarged but were not tender. Physical signs of bronchiectasis were well marked at the left base. The sputum, which formerly was very offensive, had now no foetid odour and the quantity had greatly diminished.—Mr. BOWLEY pointed out that the joint condition in these patients was almost certainly due to the septic infection from the cavities in the lung. He considered that these cases were closely allied to the rheumatoid arthritis which had been described in children.—Dr. SEYMOUR TAYLOR asked under what treatment the foetid sputum had been improved.—Mr. WALLIS said that he had observed synovitis in a case of ulceration of the rectum and that as soon as the ulceration was cured the joints also recovered. He referred to the association of joint trouble with appendicitis, some cases having been recorded by Dr. H. D. Rolleston.—Mr. CHARTERS SYMONDS said that he had seen several cases of chronic suppuration and infection of joints and that as soon as the suppuration was cured the joint condition also cleared up.—Dr. SYMES THOMPSON said, in reply, that the treatment of the case had been by creasote and general measures. He thought that at present the balance of evidence was against operation in these cases; it had been tried, but on the whole with unfavourable results.

## LIVERPOOL MEDICAL INSTITUTION.

### *Aneurysmal Varix of the Femoral Artery and Vein.—The Personal Factor in Tuberculosis.*

THE first ordinary meeting of the session of this society was held on Oct. 24th, Mr. EDGAR A. BROWNE, the President, being in the chair.

Dr. R. C. DUN showed a patient suffering from Aneurysmal Varix of the Femoral Artery and Vein in the Upper Part of Scarpa's Triangle on the left side resulting from a Mauser bullet-wound. Very severe hæmorrhage had immediately followed the receipt of the injury. The communication between the artery and vein had apparently developed on the third day after the wound was inflicted, as indicated by the supervention of pulsation and thrill over the vessels. For the past year the patient had been doing full work as a tailor, suffering comparatively little inconvenience. There was no distinct tumour in Scarpa's triangle, merely an ill-defined swelling. Expansive pulsation and marked thrill were present, with a very loud rumbling bruit resembling the noise heard when travelling in a train passing through a tunnel. There was no œdema of the limb below or varicosity of veins. The pulsation and thrill gave no inconvenience to the patient after long standing or walking and the limb was readily tired. It was not considered advisable to attempt any operative interference.—Mr. RUSHTON PARKER referred to a formidable case of the kind operated on by Professor Lister in Edinburgh over 20 years ago. The femoral artery was tied above and below the aperture and the much dilated vein was stitched up with antiseptic catgut and its channel was preserved. Though much blood was lost in a prolonged operation the patient recovered with a useful limb.—Mr. GEORGE HAMILTON mentioned several cases of Ring Stricture of the Sigmoid Flexure which he had previously brought before the society and in which the patients were still alive and well. Stress was laid first on the fact that carcinoma of the intestine was not nearly such a malignant disease as carcinoma elsewhere; and secondly, that an operation for removal was best conducted in two stages, no attempt being made to unite the divided bowel at the primary operation. A very unusual case was related of a man who was 68 years of age and who suffered from a carcinoma of the sigmoid flexure which had become (owing to a long mesocolon) attached to about the middle of the transverse colon. In order to remove this growth it was found necessary to take away 16 inches of large bowel. The man had made an admirable recovery. Mr. Hamilton made some further remarks on the advisability of recognising these ring strictures before much intestinal obstruction occurred.—Mr. RUSHTON PARKER agreed with Mr. Hamilton that in a case of this kind it was the best practice to tie tubes in the out ends of the gut and bring them out of the wound,

reserving to a future operation any attempt that might be made to re-unite the gut.

Sir DYCE DUCKWORTH read a paper on the Personal Factor in Tuberculosis.<sup>1</sup> He pointed out how at the present time the whole art of medicine, and in particular the science of pathology, was dominated by bacteriological ideas. Amidst the enthusiasm with which these momentous discoveries in this field had been received he could not but feel that some important although older doctrines had been lost sight of. The doctrine of the diatheses received little or no attention in these days, but bacteriology had not done away with these textural conditions, although it had temporarily overshadowed the recognition of them. The modern doctrine was laid down that "scrofula was tuberculosis." This Sir Dyce Duckworth absolutely denied, and he maintained that it was possible to be scrofulous throughout life without becoming tuberculous. The essential character of scrofula was a textural vulnerability to irritation of all kinds, and especially to tuberculous invasion. A protest was made against the modern idea of "curing" tuberculosis. All they could do was to place the patient in conditions favourable to an arrest of the process. No malady was so often arrested as tuberculosis, but none was more ready to relapse at any period within the lifetime of the patient. A better comprehension of the textural proclivities of the individual might enable them to frame a sounder prognosis in respect of liability to relapse after the occurrence of an arrest. More than this they could not do. In any case, bacteriology was not the "be all" and "end all" of clinical medicine, as it was so commonly supposed to be.—Dr. T. R. GLYNN considered that Sir Dyce Duckworth's remarks on the importance of recognising the part played by the constitution of the host in the development of tuberculosis were fully warranted owing to the attitude of certain physicians at the present time. He had the opportunity of seeing a number of medical reports on the health of applicants for insurance and had noted that some medical examiners in cases where there was a history of phthisis in a family made such remarks as this: "Some of the relatives have died from tuberculosis, but this affection is no longer considered hereditary, and it is not necessary to charge an extra." The pathologist, in his inoculation experiments, studied only one aspect in the etiology of tuberculosis, but he could not understand how the physician could fail to recognise the importance of the other aspect—predisposition, hereditary or acquired. He thought that, for the most part, what was formerly known as the strumous diathesis would now be recognised as degeneracy.—Dr. WILLIAM CARTER agreed that it was as necessary to consider the soil as the seed, but he believed that most, if not all, medical men took this view. Facts bearing on the importance of the nature of the soil were too patent to be mistaken, such, for example, as tuberculosis ceasing after small-pox, &c., the different order in which structures were attacked in the young as compared with the aged, the greater degree of susceptibility of the coloured races, &c. In every case it seemed to be a struggle between destructive and defensive forces, for the probability was that there was no absolute immunity in any individual of any race. It seemed probable, also, that the bacillus tuberculosis could grow on different media and produce different toxins accordingly. The importance not only of diathesis but of what was termed "temperament" was wisely recognised by their forefathers, and a rough but practically useful classification into sanguineous, nervous, lymphatic, &c., persons, the reaction of whose tissues both to disease and remedies was the outcome of their observations. In this kind of knowledge they had probably declined. Cures in an absolute sense must be very rare. A curious fact was, perhaps, worth mentioning as bearing on the supposed reliance placed by the professional mind in bacilli destroyers as against soil modifiers—viz., that though Koch's demonstration of the cause of tuberculosis was made in 1881 there was scarcely a single important addition made to the official anti-microbic drugs since the Pharmacopœia of 1867, which looked as though the professional judgment of the nation relied more on supporting the patient against the attack of the bacillus than on directly destroying the bacillus after its invasion of the organism.—Dr. W. B. WARRINGTON recognised the greater vulnerability of some to tuberculous disease arising either from inherited defects or acquired conditions of lowered vitality.

<sup>1</sup> We propose to publish this paper in full in an early issue of THE LANCET.

He considered, however, that it must be a very difficult task to point out such specific features in individual physiognomy as would enable an observer to state with reasonable probability the individuals who were the more liable to tuberculosis. Similarly he considered that it would be difficult to predict of several individuals, previously healthy and whose family history was unknown, which individual was on exposure to cold and fatigue most liable to rheumatic fever. The pneumonia bacillus inhabiting the mouth of a healthy person might be as virulent as that found in one suffering from the disease. There must, therefore, have been some change in the host, but this change could not be recognised. The statement he would emphasise was that the proof of a diathesis was often the proof of a disease.—Dr. THOMAS HARRIS (Manchester) scarcely thought that the modern pathologist so completely ignored the personal equation of the suitability of soil in favouring or retarding the development of tuberculosis as Sir Dyce Duckworth inferred. There could be no reasonable doubt that the suitability or otherwise of the soil not only affected the tendency to the development of tuberculous foci in the first instance but also played a great part in the subsequent progress of such foci. The favourable results following the modern treatment of tuberculosis in open-air sanatoria were doubtless due to the rendering of the human organism a less suitable soil for the progress of the lesion and resulted in many cases in an arrest of the disease. It was quite right to use the term "arrest" in reference to such cases and to avoid the term "cured."—Dr. R. J. M. BUCHANAN and Dr. J. BARR also spoke, and Sir DYCE DUCKWORTH replied.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—The opening meeting of the session of this society was held on Oct. 18th, Dr. A. G. Barrs, the President, being in the chair.—The President delivered an opening address on Some Points in Medical Practice.—Dr. Christy Wilson (Doncaster) read a short paper on the Montana Sanatorium in the Rhone Valley, showing in the first place lime-light pictures of Nordrach-upon-Mendip and Altadore, in County Wicklow. Montana, near Sierre, was chosen as the site of a large sanatorium by a number of the leading physicians in Switzerland and the entire control was placed in the hands of Dr. Stephani. The altitude (5000 feet), the small rainfall, the great amount of sunshine, the almost total absence of fogs, the complete shelter from the north and east by mountain ridges covered with an immense pine forest, the spacious verandahs, the generous diet, the lakes for figure-skating, the lovely walks in the park and the forest, all combined to give the unfortunate victims of tuberculosis an excellent prospect of cure. Disinfection of the rooms by scrubbing with sublimate and by formaldehyde vapour under high pressure was carried out rigorously. The hope was expressed that ere long every case of pulmonary tuberculosis would be notified and isolated in a sanatorium.—The President made some observations upon the subject.—Mr. Secker Walker read a paper on the Advantages of the Complete Operation as devised by Mr. Ballance for Mastoid Disease and Chronic Otorrhoea over the Older Methods. The operation was described in detail. Its special advantages were given as follows. The whole seat of the disease in the cavities of the temporal bone was exposed to clear view and the disease could be entirely removed. By the free cutting away of bone and the amount of room thus secured it was not difficult to keep away from what might be termed dangerous areas, or they might be better approached with caution. At the end of a fortnight the freshly-cut surface of the bone, now vascularised, was covered with a large epithelial graft which lined the whole cavity and by immediate healing prevented the recurrence of the disease. The period of treatment was much less, from four to six weeks, instead of as many months. The results of the older methods were so uncertain that surgeons hesitated to advise operation for chronic otorrhoea and only operated for obvious mastoid disease. With this operation it was possible to speak with something approaching certainty of success, while the results on the power of hearing were distinctly good.—Dr. A. L. WHITEHEAD had performed the operation according to Ballance's method a number of times and he thoroughly agreed with Mr. Walker as to the great advantages presented by this method over all others. He preferred to use the chisel to enter the antrum and the burr to enlarge the cavity and to smooth the walls. The importance of securing a healthy condition of

the naso-pharynx was mentioned so as to prevent reinfection through the Eustachian tube. The practical certainty of effecting a cure by this operation was so great that no case of chronic otorrhoea should be allowed to go on uncured.—Mr. E. Ward and Dr. James Kerr also took part in the discussion and Mr. Walker replied.—The following cases, pathological specimens, &c., were shown. Dr. J. B. Hellier: (1) A Uterus Extirpated for Intractable Prolaps; (2) a Double Hydro-salpinx; (3) (with Mr. R. Smalles) a Dermoid Ovarian Cyst removed in the Fifth Month of Pregnancy; and (4) (with Mr. B. Wainman) Ruptured Tubal Gestation treated by Abdominal Section.—Mr. H. Littlewood: (1) Three Specimens of Ectopic Gestation; (2) Loose Cartilage removed from the Elbow-joint; and (3) an Implantation Cyst from the Finger.—Dr. A. G. Barrs: (1) Specimens from a case of Hodgkin's Disease; and (2) a case of Hysteria in the Male.—Mr. B. G. A. Moynihan: (1) A series of specimens from Operations for Recurrent Appendicitis; (2) a Vermiform Appendix transfixed by a pin which had been swallowed 14 days before operation; (3) a Part of the Ileum, the Cæcum, the Ascending Colon, and a Portion of the Transverse Colon removed for Carcinoma; (4) the Sigmoid Flexure removed for Chronic Recurring Volvulus; (5) Malignant Stricture excised from the Sigmoid; and (6) specimens from cases of Excision of the Rectum by Kraske's method.—Dr. T. Churton: Two cases of Nervous Disease (Myoclonus and Disseminated Sclerosis) treated by Subcutaneous Injection of Curare.—Dr. Whitehead: A specimen of Rhinolith; and (2) a case of Microtia.—Mr. Mayo Robson: (1) Multiple Tuberculous Constrictions in the Small Intestine, Enterectomy for Intestinal Obstruction; (2) Almost Complete Gastrectomy, recovery; and (3) Two Partial Gastrectomies, recovery.—Dr. C. M. Chadwick: A case of Rheumatoid Arthritis in a Child.—Mr. Lawford Knaggs: Ectopic Gestation.—Dr. E. F. Trevelyan: A Part of a Brain showing Multiple Gummata.

WINDSOR AND DISTRICT MEDICAL SOCIETY.—The first meeting of the session of this society was held at the Guildhall, Windsor, on Oct. 23rd, the President, Mr. W. B. Holderness, J.P., being in the chair.—Seven microscopical preparations illustrating the Minute Anatomy of the Appendix under Healthy and Pathological Conditions were exhibited, as well as two wet specimens showing the naked-eye appearances of the same, the whole being lent by Dr. G. Leslie Eastes of the Laboratory of Clinical Pathology, Queen Anne-street, W.—Dr. W. F. Lloyd showed a specimen of a Cæcum and Ruptured Appendix from a case of perforating appendicitis in a boy, aged 10 years.—Mr. Noble Smith showed some excellent Photographs illustrating the effect of treatment upon various deformities, e.g., wry-neck, spinal curvature, &c.—Dr. E. S. Norris exhibited a patient suffering from Multiple Growths, presumably sarcomatous in nature. There were great protrusion of the eyeballs and almost total blindness.—Dr. Lloyd showed a boy suffering from Enlarged Glands and Anæmia. The case had improved greatly under arsenic, and a blood-film was shown which indicated that the condition was not caused by Hodgkin's disease.—Dr. G. E. Hale showed: (1) A well-marked case of Fibroid Phthisis affecting mainly the right side in which the heart was drawn considerably over to the right; and (2) a young woman with a Tumour in the Right Lumbar Region of the Abdomen. It was thought to be a cyst of the right kidney.—Mr. A. Marmaduke Sheild read a paper entitled, "When to Operate in Appendicitis." The paper commenced by quoting certain varieties of the disease where operative methods seemed the sole hope, these being fulminating or gangrenous appendicitis and perforative appendicitis with general septic peritonitis. Stress was laid on the deceptive and dangerous nature of these cases and on the great importance of their early recognition. Appendicitis with local inflammatory mischief was next touched upon and here Mr. Sheild said that the rules of practice were not so clear. The considerations for surgical and medical treatment in these cases were mentioned and conclusions were drawn. The formation of abscess always calling for incision the indications of pus formation were pointed out. Under so-called recurrent appendicitis the medical and surgical aspects of the disease were noticed. The paper specially dealt with these cases as met with in private practice, the difficulties of the medical attendant in the question of morphia administration and the attitude of friends and relatives being entered into. Treatment, owing to time, could not be more than touched upon, but a method devised

by Mr. Sheild of introducing saline purgatives into the large intestine was described.—A discussion followed in which Dr. Norris (Eton), Mr. Arnold Thomson (Maidenhead), Dr. Francis Hawkins (Reading), Mr. R. S. Charsley (Slough), Mr. Noble Smith (London), and Mr. E. W. Adams (Slough) took part, and Mr. Sheild having replied the proceedings terminated with a vote of thanks to Mr. Sheild for his very lucid and instructive address.

**SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.**—A meeting of this society was held at the Hospital for Sick Children, Great Ormond-street, W.C., on Oct. 18th, Dr. D. B. Lees being in the chair.—Dr. Fennell showed, for Dr. Garrod, a case of Cerebral Diplegia. Ataxy was associated with spasticity, a fact which was considered to suggest that not only the cerebrum but the cerebellum also was affected. Retinitis pigmentosa was present, a point of interest in connexion with the etiology of cerebral diplegia and the suggestion of its connexion with syphilis.—Dr. Poynton, Dr. Hawthorne, and Mr. Carre-Smith commented upon the case, and Mr. G. Pernet remarked that De Amicis of Rio de Janeiro had placed upon record several cases in which there was undoubted syphilis in one or both parents of children with retinitis pigmentosa.—Mr. H. S. Collier showed an infant, aged three months, the subject of Congenital Deformity of the Left Shoulder Girdle and Spine of the type described by Willett and Walsham.—Dr. Lees showed a case of Enlargement of the Heart the result of Rheumatism. Thrombosis of the right brachial and jugular veins had been present.—Dr. Lees also showed a case of Arsenical Neuritis caused by Liquor Arsenicalis used in the treatment of chorea. A dose of 15 minims had been given by a medical man for five weeks.—Dr. Hawthorne and Dr. W. C. Chaffey spoke upon the case.—Dr. Hutchison showed a case of Double Facial Paralysis following Ear Disease which had quickly recovered after both mastoids had been operated upon.—Dr. Lees and Dr. Sansom commented upon the case.—Dr. Theodore Fisher showed a Heart from a child, aged 15 months, in which the mitral orifice was extremely stenosed. Marked symptoms pointing to disease of the heart had been present from the time of birth. A heart was also shown from a child, aged four and a half months, in which the segments of the aortic valve were much thickened and adherent to one another. In the first case no history of rheumatism could be obtained in the mother, but in the second about three months before the birth of the child there had been pain and swelling of the left knee.—Dr. Sansom remarked upon the fact that such cases were not malformations in the strict sense of the word but the consequences of intra-uterine endocarditis.—Dr. Chaffey read a paper on a case of Enlarged Spleen associated with the Blood Changes of Pernicious Anæmia. He thought the case was one of pseudo-leukæmia which had terminated with destructive blood-changes.

**BRADFORD MEDICO-CHIRURGICAL SOCIETY.**—The inaugural meeting of the present session of this society was held on Oct. 15th, Dr. R. Honeyburne, the President, being in the chair.—Cases, Pathological Specimens, Photographs, and Surgical Instruments were shown by Dr. Arnold Evans, Dr. A. Bronner, Mr. J. B. Hall, Dr. James Kerr, and Mr. William Horrocks.—The President read a paper on the Diagnosis and Treatment of Diphtheria. He justified the choice of this disease as the subject of an inaugural address because they knew its cause and symptoms, the manner of their production, and its cure and prophylaxis. Further, it appeared from various health reports that the disease, which was rare in the West Riding cities until recent years, appeared to be on the increase and had assumed alarming proportions in Leeds and Sheffield. The death-rate in Britain from diphtheria compared very favourably with that obtaining in continental and American cities. The Klebs-Löffler bacillus fulfilled the three conditions necessary to prove that it was the *causa causans* of diphtheria: (1) it was universally present in diphtheritic membrane; (2) it could be cultivated outside the body and inoculation of the pure culture into cats caused symptoms identical with those of the disease in man; and (3) accidental inoculation of human beings with the pure culture had occurred and the disease had been produced in a virulent form. Nothing was known regarding the life-history of the bacillus outside the body (if it had such a separate existence). The only domestic animal naturally susceptible was the cat, and instances of infection from that source were not common;

so that the only known factors relating to the spread of the disease were the age of the patient and the season of the year. Improved sanitary conditions which had done so much to mitigate enteric fever had had no effect on diphtheria, which had increased rather than diminished both in range and virulence during the last 20 or 30 years. It was probable that the infection was often conveyed by apparently healthy persons who yet harboured virulent bacilli in their mucous membranes. The cardinal rules of treatment were: (1) inject antitoxin serum early; and (2) inject an efficient dose. The use of antitoxin as a prophylactic was only of very limited application, but might be used, perhaps, with advantage in schools to prevent the immediate spread of an outbreak, as it would confer immunity for something like three weeks.—The paper was followed by a discussion in which several members took part.

**SOCIETY OF MEDICAL OFFICERS OF HEALTH.**—A meeting of this society was held on Oct. 25th when a Presidential Address was delivered by Mr. A. Wynter Blyth on Ventilation, the substance of which will be found at p. 1180.—In the discussion which at Mr. Wynter Blyth's express desire followed the address Dr. Gwynn made some remarks on the defective ventilation of places of worship.—Dr. McVail expressed his conviction that Professor De Chaumont's standard—2 parts per 10,000 of organic CO<sub>2</sub>, or 6 parts in all—was fixed too high, since the outer air in towns frequently contained that amount, and it was obviously impossible to have a purer air in any occupied room. When the apartments and its occupants were clean he was certain that four parts of organic CO<sub>2</sub> might be present without any perceptible odour or closeness. He had found it so in a fever ward which he considered overcrowded with cases of enteric fever and feared that progress would be hindered by efforts at the unattainable.—Dr. T. Glover Lyon said that though the cost of working his system was small, that of its installation was unavoidably considerable and often deterred hotel proprietors and others from adopting it. Owners and architects objected to the size of the fans and shafts, but while a six-foot fan making 500 revolutions per minute would be efficient and noiseless, one of two or three feet diameter revolving 1000 times would produce an intolerable noise with little effect save in its immediate proximity.—Dr. Kenwood doubted the expediency of forcing air into sewers, maintaining that their ventilation should be effected by powerful extraction only.—Dr. E. F. Willoughby, referring to Mr. Blyth's deprecation of all attempts at the ventilation of public buildings by other than fans, described the system adopted by Professor G. Fischer in the Memorial Church at Berlin where, by tiers of "heizkörper," or steam-coils, increasing in number to the summit of the dome, the foul air, instead of being chilled and sinking again, as in all similar edifices, passed out at the lantern in a continuous stream. Judging by the fact that at all seasons and under all circumstances a uniform temperature of 60° F. was maintained it would appear to be a complete success.

**DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.**—At a meeting of this society on Oct. 23rd, Dr. A. J. Harrison, the President, being in the chair, the following cases were shown. Dr. P. S. Abraham: (1) A case of General Progressive Scleroderma in a married woman, aged 49 years (in the discussion which followed Mr. Campbell Williams spoke of an allied case in a diver, Dr. Alfred Eddowes of cases of leukodermic alopecia, and Dr. J. H. Stowers of the case which he showed at the Dermatological Congress in 1881, in which the distal phalanges of the hands were entirely absorbed, the last speaker regarding the prognosis in these cases as being grave; Dr. Abraham, however, said that there were several cases of recovery on record); (2) Xanthoma Diabeticorum in a woman, aged 32 years (attention was called to the rareness of this condition in women and Dr. Wilfrid Warde gave a microscopical demonstration of the histology of the papules); (3) Lupus Erythematosus in a girl, aged nine years; and (4) Dermatitis Herpetiformis in a young girl (Dr. Wilfrid Warde suggested that this was a case of pemphigus foliaceus).—Dr. Stowers: A case of Paget's Disease of the Left Breast of 15 Years' Duration in a patient, 82 years of age. He called particular attention to the long duration of the disease without any glandular implication or scirrhous formation.—Dr. G. Norman Meachen: (1) A case of Lichen Planus Hypertrophicus in a Woman; and (2) a case of Lymphangioma Circumscriptum in the Left Axilla of a Woman (Mr. G. Pernet thought this to be a case of white

mole; there was a history of some, probably nævoid, growth having been removed from this region many years ago).—Dr. Graham Little: (1) Lichen Scrofulosorum in a Girl; and (2) Two Children with Parasitic Alopecia.—Dr. Eddowes: A case of Lupus Vulgaris.—Mr. Arthur Shillitoe: (1) Tertiary Syphilitic Indurative Oedema of the Scrotum, Lip, and Tongue; and (2) Secondary Syphilitic Tongue, showing Papillomata and Condylomata present at the same time.—The proceedings terminated with an address from the President on the Accident of Disease Dermatologically Considered.

**SOUTHPORT MEDICAL SOCIETY.**—The annual meeting of this society was held on Oct. 9th at the Temperance Institute, Dr. R. Harris being in the chair. The annual report and balance-sheet were duly adopted and the following officers were elected for the ensuing session:—President: Dr. C. Pinkerton. President-elect: Dr. F. J. Baildon. Vice-President: Dr. J. C. Russel. Committee: Mr. G. Reinhardt Anderson, Dr. P. Ashworth, Mr. A. H. Baines, Dr. W. H. Barrett, Dr. Harris, and Dr. G. C. Walker, sen. Honorary treasurer: Dr. Mewburn Brown. Honorary secretary: Mr. R. M. Littler.—Dr. Pinkerton then gave an inaugural address on Moveable Kidney. He dealt exhaustively with the causes, symptoms, complications, diagnosis, and treatment of this affection and laid special stress upon the frequency of obscure and intractable gastrointestinal symptoms. Numerous illustrative cases were quoted.

## Reviews and Notices of Books.

*A Text-book of Gynecology.* Edited by CHARLES A. L. REED, A.M., M.D. Illustrated by R. J. HOPKINS. With 355 Illustrations. London: Henry Kimpton. 1901. Pp. 950, 8vo. Price 25s. net.

THIS text-book of gynecology is the outcome of the coöperation of some 31 different writers. The method has been followed of obtaining contributions upon special subjects, such as pathology and dermatology, from various authorities who are not strictly gynecologists. As a result of the manner in which the book has been compiled a single chapter is in some instances based upon contributions from several writers, while the whole has been rendered consecutive, systematic, and homogeneous by the editor. This system has worked very well mainly owing to the care and supervision exercised by Dr. Reed. Here and there, as is inevitable in such a book, we find somewhat contradictory statements as, for example, in the chapter upon the Pelvic Floor and its Injuries with regard to the functions of the perineum, but such inconsistencies are few and far between. The general tendency of the work is surgical; this is well illustrated by the treatment recommended for uterine displacements, and by the section on the treatment of acute septic infections of the uterus in which we find curettage and hysterectomy alone advocated. The local medicinal treatment of the affections of the external genitalia, admirably described by Ravogli, is, however, fully considered. In the descriptions of mal-development of various portions of the genital tract the editor has availed himself of the services of Ballantyne, and the result is seen in several sections of much interest. Amongst other British contributors are Sinclair who writes upon Bacteria of the Uterus, Ovaries, and Fallopian Tubes, Mayo Robson who has contributed an article upon Recto-vaginal Fistula, and Murdoch Cameron who describes Cæsarean Section. In mentioning more particularly the work of these contributors we must not be thought unmindful of the very valuable portions of the book written by the remainder of the collaborators, representing, as they do, the best American teaching of the present day. General Pathology has been placed in the hands of Herzog and the result is a series of descriptions of much greater value than are usually to be found in text-books of gynæ-

cology. Where there is so much that is good it is difficult to select particular chapters, but we may call attention more especially to the description of Tuberculosis of the different portions of the Genital Tract by Whitacre, to the chapters mainly written by the editor himself, and to those upon the Urinary Apparatus by Harris and that upon the Rectum by Gant, the latter containing a valuable section upon Examination of the Bowel by Martin. A very suggestive chapter upon Pelvic Diseases and Nervous Affections by Dercum concludes the volume. We cannot agree with Dr. Reed when he states that Byrne is wrong in calling his operation of electro-hysterectomy a high amputation of the cervix. An almost precisely similar operation was performed with the scissors or knife by many of the adherents of supra-vaginal amputation of the cervix before the days of the electric cauter, and if the editor refers to Sir John Williams's book on "Cancer of the Uterus" he will see that it was his custom in performing this operation to remove almost the whole, and in many cases the whole, of the mucous membrane of the body of the uterus, without, however, including so much of the muscular tissue as Byrne does. This operation of electro-hysterectomy is undoubtedly a development of the operation of high amputation of the cervix, and the brilliant results obtained by its originator go far to confirm the views of those who still think that supra-vaginal amputation of the cervix, if properly performed, is likely to give good results in selected cases.

The chapters upon the Affections of the Fallopian Tubes, to which Clark and Coe have contributed as well as some of the writers already alluded to, are particularly good and worthy of perusal. Neoplasms of the ovaries receive full treatment by Rothrock, but in the chapter upon Ectopic Gestation there are several notable omissions. The illustrations are good and well reproduced. The editor has adopted the uncommon plan of describing them by quotations from the text. This answers well in some cases, but in others the description has little or no bearing upon the illustration, and does not in the least help to explain it or to call attention to the particular point it is intended to represent. There are some evidences of haste, and the references, almost uniformly incomplete, might well have been omitted. A full index is provided. On the whole the book is good and up to date and may be recommended to those who have already some knowledge of the subject.

*A Manual of Surgery for Students and Practitioners.* By WILLIAM ROSE, M.B., B.S. Lond., F.R.C.S. Eng., Professor of Clinical Surgery in King's College, London, and Senior Surgeon to King's College Hospital; and ALBERT CARLESS, M.S. Lond., F.R.C.S. Eng., Surgeon to King's College Hospital, and Teacher of Operative Surgery in King's College, London. Fourth Edition. London: Baillière, Tindall, and Cox. 1901. 8vo, pp. 1182. 406 Illustrations. Price 21s.

WHEN four editions of a book are published within a space of under two years it is obvious that there is a demand for such a book, and we can do but little here except congratulate Mr. Rose and Mr. Carless upon the success of their work. In reviewing the second edition we expressed a hope that the book would not be allowed to get any larger. That edition consisted of 1190 pages, while this, the fourth, consists of 1182 pages. The authors state in their preface that the present edition is practically a reprint of the preceding one, and scarcely a year has elapsed since the third edition appeared. We consider this work to be eminently suitable as a student's text-book because in the main the descriptions are clear and yet concise, so that practically all that a student need know of the vast science of surgery is contained within 1200 pages. It is difficult to see where the work could have been made briefer without a sacrifice of efficiency. The excellent skiagrams of fractures and dislocations should prove of great value to the reader,

but we would suggest that some of the diagrams might with benefit be replaced by more artistic productions. We may instance Fig. 180, which is quite unworthy of such an excellent text-book as the one before us.

*Encyclopædia Medica.* Under the general editorship of CHALMERS WATSON, M.B., M.R.C.P. Edin. Vol. VII. Edinburgh: William Green and Sons. 1901. Pp. 506. Price 20s.

THIS volume carries on the work from an article under the heading "Liver" to one under that of "Menopause." Many contributions of considerable interest and value will be found. The physiology and general medical affections of the liver were considered in the previous volume; in the section now before us we find a description of those conditions generally known as "tropical" and of parasitic affections of the liver. The author is Mr. James Cantlie. His remarks on hepatic abscess are particularly worthy of note. In common with most authorities on tropical diseases he considers that there is but little evidence to justify the belief that malarial poisoning has any direct influence in causing abscess of the liver. Although in many instances the two factors co-exist, yet they are by no means coterminous in their geographical distribution; moreover, the changes induced by malaria in the viscera generally are more in the nature of a cirrhotic or plastic nature than of a destructive or retrograde character. Mr. Cantlie further is of opinion that malaria serves merely to weaken the functional powers of the liver and thereby to render it more susceptible to disease and less fit to resist the influences brought about by chill.

Dr. J. F. Sutherland, deputy commissioner in lunacy for Scotland, writes an interesting article on Lunacy, dealing mainly with the legal aspect of the subject. This contribution should be a valuable one for reference, as it contains in a small space all the necessary information as regards the legal status of a medical man who undertakes the charge of insane patients.

Diseases of the lungs are considered in the following sections—Pulmonary Tuberculosis, Fibrosis, and Pneumokoniosis, by Dr. R. W. Philip; Gangrene of the Lungs and Emphysema, by Dr. S. H. Habershon; and Vascular Disorders, Syphilis, Abscess, and Parasitic Affections of the Lungs, by Dr. R. A. Fleming. All these articles are worthy of high praise and their authors have evidently spared no pains to render them as complete and up to date as possible. Dr. Philip's remarks on prognosis are interesting. He rightly lays stress on the caution which should be exercised in judging of the progress of the disease by the gain in weight. We think this caution most necessary. It is a matter of frequent occurrence that patients under the "hygienic" or "open-air" treatment gain weight considerably, whilst the temperature curve and physical signs show but little alteration. The patients are likely to lay too much importance on the gain in weight and therefore to wish to leave the institution sooner than is advisable. A gain in weight is certainly encouraging but is apt to be fallacious.

The article on Malaria is an excellent one and is by Mr. D. C. Rees. The section Parasitology, which describes the human and mosquito cycles of the malarial parasite, is particularly worthy of note and gives a good summary of the present knowledge on the subject.

There is an excellent article on Malingering, written by Mr. T. D. Patmore, late medical officer, His Majesty's prison, Wormwood Scrubs. In having to distinguish between true disease, hysterical phenomena, and symptoms purposely feigned for some ulterior object the practitioner is not unfrequently placed in a position of great responsibility and the greatest care and tact are required in examining a case and arriving at a conclusion. This difficulty has been added to in recent years by the custom of cloaking under

the term "neurasthenia" many cases of voluntary imposture, and whilst the vagaries and erratic action which an exhausted, or concussed, or shocked nervous system may indulge in must be appreciated, yet we agree with Mr. Patmore that it is to be noted with regret that there is a tendency to confuse nervous with voluntary phenomena. Mr. Patmore in his experience at Wormwood Scrubs prison was frequently brought into contact with malingerers, and his remarks, therefore, will carry considerable weight and make his contribution a valuable one.

Mr. H. J. Stiles is responsible for the section on Diseases of the Mammary Gland. He has made a very complete study of his subject, the section on Neoplasms of the Mamma being particularly well arranged. Amongst the other contributors to this volume are Dr. H. Harvey Littlejohn who writes on Forensic Medicine, and gives a good epitome of the principles of that branch of medical science; Dr. G. F. Still who writes on Tuberculous Meningitis and Posterior Basic Meningitis; Dr. W. Osler whose article on Epidemic Cerebro-spinal Meningitis is particularly worthy of note; and Mrs. Garrett Anderson who contributes a short article on the Menopause.

#### JOURNALS AND MAGAZINES.

*The Practitioner.*—This journal is still engaged upon its Fracture Numbers, the October issue being the third of the series. Considering the importance of the subject of fractures to medical men generally, the wide space allotted need not be grudged. Few cases are so injurious to a medical reputation as those of a fracture with permanent, perhaps avoidable, deformity. Moreover, for a comparatively simple and obvious disorder, and one which has had close attention for centuries, fractures have assumed a new aspect and have received novel and entirely different methods of treatment within quite recent years beyond almost any other large class of surgical cases. Mr. H. L. Barnard contributes an exhaustive communication upon Fractures of the Lower Extremity. Separation of the lower epiphysis of the femur is especially dealt with and some most interesting examples are given of boys who have entangled their limbs in a cart-wheel while hanging on behind. *Apropos* of fractured patellæ Mr. Barnard digresses into the question of irrigating the knee-joint and shows how commonly the posterior pouches of the synovial membrane are neglected, separate incisions being necessary if these are to be thoroughly drained. Two striking reproductions of skiagraphs represent respectively fracture of all the metatarsal bones and separation of the heads of the five outer metatarsals. Mr. F. C. Wallis illustrates his remarks on the Treatment of Paralysis and Muscular Atrophy after prolonged use of Splints or of an Esmarch's Cord by an unusual case of double congenital absence of the superior radio-ulnar articulations. Elaborate operative and electrical treatment secured a very gratifying result. A paper on Gastric Flatulence by Lydia Leney contains the statement, as the result of about 30 observations, that the volatile acidity of the contents of the stomach varies inversely as the presence of free hydrochloric acid. The editorial paragraphs touch upon the question of the reorganisation of the Royal Army Medical Corps and upon medical bulletins, *apropos* of which Sir Henry Hallford's opinion is quoted. Mr. James Berry's excellent work on the Thyroid Gland is reviewed at length and the "Causerie" deals with the late Dr. McNeill Whistler.

*The Journal of Hygiene.* Vol. I., No. 4. October, 1901. Cambridge: University Press. Pp. 99. Price 5s. net.—Malaria forms the subject of two papers in the current quarterly number. Captain Leonard Rogers, I.M.S., discusses in interesting fashion the Seasonal Prevalence of Anopheles and Malaria in Lower Bengal and the

practical application of the mosquito theory; whilst Dr. Nuttall and Mr. Arthur Shipley continue their studies in relation to malaria, the structure and biology of anophelids being here dealt with in considerable detail. There are, too, some excellent plates, one of which shows the anophelid *maculipennis* in the act of sucking blood. Captain Rogers finds that the conditions which obtain in Lower Bengal, whether in the rural districts or the small towns, are such as to render the destruction of the larvæ impracticable. The houses are largely constructed on raised earth platforms which are formed by the excavation of earth from the adjoining low-lying soil and the tanks thus produced can neither be drained nor treated with culicides. These tanks, Captain Rogers finds, form a most important breeding-ground for anophelids. The larvæ are, according to these observations, most prevalent in hot weather, while during the rains they diminish in number. Captain Rogers does not find that the presence of fish is fatal to the existence of the larvæ. Although he does not regard it as practicable entirely to destroy the larvæ he thinks that much may be done in the neighbourhood of towns by filling up the pools, by lining the surface-drains, and by abolishing rice-fields. There is much interesting matter in this paper. Dr. J. S. Fulton gives an account of a Milk-borne Outburst of Enteric Fever in America, while Dr. R. H. Makgill and Dr. W. G. Savage contribute papers on the Value of the Neutral-red Reaction in the Bacteriological Examination of Water. The number concludes with some further observations by Dr. Louis Cobbett on the recent Outbreak of Diphtheria in Cambridge, which was dealt with on commendably modern lines. Dr. Cobbett discusses the very difficult question as to the possibility of isolating persons who are harbouring in their throats the bacillus of diphtheria but who present no other indications of that disease. He concludes (and we incline to the same view) that it would be extremely inexpedient to press the isolation of such cases—inexpedient in the best interests of public health. To invite opposition is obviously undesirable, more especially when it can clearly not be said that a person in whose throat the bacillus is found is suffering from the disease diphtheria. Probably the application of an antiseptic throat-wash would be found a more practicable measure than enforced isolation.

## Analytical Records

FROM

### THE LANCET LABORATORY.

#### CONDENSED EGG.

(THE CONDENSED EGG SYNDICATE, LIMITED, 19, GUILTON ROAD, HACKNEY, LONDON, N.E.)

THERE is no mystery about these preparations; they consist simply of fresh eggs and refined sugar. In appearance the preparations are not unlike malt extracts—slightly opalescent and syrupy. We examined and submitted to analysis three preparations, the first containing the egg-albumen, the second the egg-yolk, and the third the entire egg. The egg-albumen preparation gave on analysis the following results: moisture, 31.65 per cent.; mineral matter, 0.81 per cent.; proteids, 10.87 per cent.; fat, 0.30 per cent.; and sugar, 56.37 per cent. The egg-yolk preparation gave the following results: moisture, 24.80 per cent.; mineral matter, 1.24 per cent.; proteids, 11.68 per cent.; fat, 22.00 per cent.; and sugar, 40.28 per cent. Lastly, the entire egg preparation gave the following results: moisture, 28.70 per cent.; mineral matter, 0.92 per cent.; proteids, 11.75 per cent.; fat, 9.20 per cent.; and sugar, 49.43 per cent. These results are in perfect accordance with the descriptions of the respective preparations. Thus the egg-albumen preparation contains the most moisture but only a trace of fat.

The egg-yolk preparation contains the least amount of moisture but a very large proportion of fat. The composition of the entire egg preparation comes between these two, as might be expected. The proteids, of course, represent the unaltered albumen of the egg coagulable by heating. We could trace no objectionable preservative. We have here undoubtedly a satisfactory method of preserving eggs, although for some purposes the presence of 50 per cent. of sugar is not desirable. The preparations answer well for cooking purposes, as in the making of custards or puddings or cakes. Necessarily the preparations are powerful foods, each tablespoonful representing the nutritive value of one egg. The preparations bore no sign of staleness or deterioration. Apart from their value for ordinary cooking purposes, it is no small achievement to be able to preserve so satisfactorily a preparation containing over 10 per cent. of soluble albumen.

#### OLD PEDIGREE PORT.

(MESSRS. MARTELL AND CO., GREAT TOWER-STREET, E.C.)

Pedigree port is described as a pure and reliable Spanish port grown in the choicest district, and made after the best Douro methods. We are quite certain that it is much more honest than many alcoholic liquids denominated as port. It is of a rich red colour and possesses a taste somewhat rough on the palate, but full and fruity. It cannot lay claim to elegance exactly, and we do not expect it at 1s. 6d. a bottle. For all that it is a sound and genuine wine and well adapted for the use of invalids whose means are limited. On analysis the following results were gained: extractives, 6.88 per cent.; sugar, 6.40 per cent.; mineral matter, 0.20 per cent.; alcohol, by weight 14.00 per cent., by volume 17.26 per cent., equal to proof spirit 30.26 per cent.; volatile acidity reckoned as acetic acid, 0.087 per cent.; and fixed acidity reckoned as tartaric acid, 0.356 per cent. The wine is somewhat acid. As regards alcoholic strength it is below the average for port wine.

#### IMPERIAL STOUT.

(BENSKIN'S WATFORD BREWERY, LIMITED, WATFORD.)

We have not examined a sample of stout with a greater proportion of malt extractives or nutritives than the one under notice. The results of analysis were as follow: malt extractives, 9.25 per cent.; mineral matter, 0.48 per cent.; and alcohol, by weight 7.73 per cent., by volume 9.62 per cent., equal to proof spirit 16.86 per cent. We could trace no objectionable preservatives. The stout is particularly well adapted for the requirements of invalids. It is of excellent malty flavour, highly nourishing, sound, and free from excess of carbonic acid gas. It is stated to be brewed from malt and hops only—that is, with no addition of sugar. It is free from sharpness of taste on account of its non-acid character. It is evidently a genuine malt liquor brewed from malt and hops only and of the best type. We understand that this stout has been used in the hospitals in South Africa, where very favourable opinions of it have been formed.

#### (1) BOROBENPHENE; AND (2) GLYCOPENPHENE.

(THE HENRY HEIL CHEMICAL CO., ST. LOUIS, MO., AND F. NEWBURY AND SONS, 27 AND 28, CHARTERHOUSE-SQUARE, LONDON, E.C.)

Borobenphene is a clear, colourless liquid containing, according to our analysis, glycerine, boric acid, benzoic acid, and phenol. It has a pleasant aromatic smell and, considering its ingredients, is, of course, strongly antiseptic. It is practically non-poisonous, the quantity of phenol in relation to the other antiseptics being small. Borobenphene, it is stated, does not coagulate albumen—a statement which we have been able to confirm by the fact that it is without a visible effect upon a solution of white of egg. The preparation is attractive and useful for domestic purposes. It may be used internally in, of course, restricted doses, and its taste is not unpleasant. In fact, it may agreeably be used in all cases where the application of an effectual antiseptic is desired. Glycopenphene has practically the

same composition, but differs in containing a considerable white deposit which proved on analysis to be zinc oxide. The preparation is said to give relief in eczema and to serve as an excellent dressing for wounds and sores.

#### DYMOL.

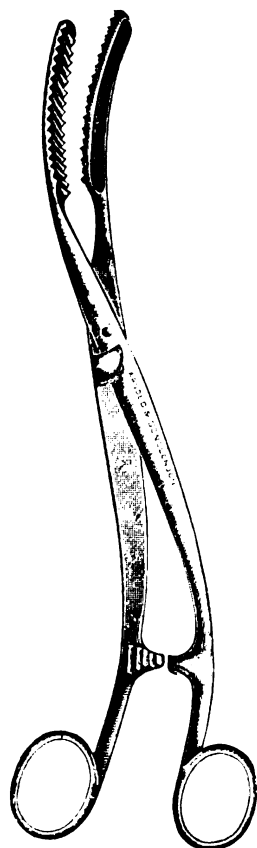
(LORD AND LORD, PHILADELPHIA; F. NEWBERRY AND SONS, 27 AND 28, CHARTERHOUSE-SQUARE, E.C.)

Dymol is an iodine compound insoluble in acid media, but decomposed in an alkaline environment. It contains nearly a third of its weight of iodine in organic combination. The iodine is readily obtained on treating dymol with a strong oxidising agent. It is a light brown powder without any irritating properties, neutral in character and insoluble in water and acid. It is described as an alterative and stimulating antiseptic for employment in gastro-intestinal disorders. It has thus been used in the treatment of diarrhoea, dysentery, cholera, and enteric fever. In other words, it produces intestinal antiseptics and is said completely to deodorise the stools. It is, practically speaking, non-toxic.

## New Inventions.

### SOFT CERVIX VOLSELLA FORCEPS.

THE accompanying illustration shows the new soft cervix volsella forceps which I devised and recently exhibited to the Obstetrical Society of London. The volsella catch, grip firmly, and pull down the soft dilated puerperal cervix without tearing or injuring the cervix or vagina, the fundus uteri being always pushed down by the left hand on the abdomen. The new instrument is specially made for the soft dilated cervix in abortions, premature or full-time labours, or soft dilated diseased cervix. This instrument is better suited in many ways for the above class of case than the sharp-pointed volsella or Teale's forceps, neither of these being specially made for the purpose. The blades of the new volsella are long and broad. The blade inserted into the os uteri has a slightly convex horizontally grooved and blunted serrated surface which fits accurately into the slightly concave corresponding surface of the other blade, thus obtaining a long, broad, and firm grip of the cervix without any laceration. The posterior surface of the closed instrument is smooth and polished, so that it slides along the back or side wall of the vagina easily. The anterior surface of the blade inside the cervix has a longitudinal groove along its whole length which can be used to guide the finger or curette into the uterus. The lock of the volsella is modern and the blades can be separated entirely and made aseptic. There is a clip at the handles which can be fastened at varying degrees of tightness. The handles curve towards the perineum so as to be out of the way of the operating finger or curette. The whole



instrument is very light and its weight if left hanging does not tear the cervix. The soft cervix forceps is made by Messrs. Arnold and Sons, West Smithfield, E.C.

Brook-street, W.

ROBERT WISE, M.D. Edin.

## THE ENTRIES AT THE MEDICAL SCHOOLS.

By the courtesy of the deans of the various medical schools we are enabled to give approximately the number of students who have entered upon medical study this year. There is some difficulty in obtaining figures made up to exactly the same period from the different schools, but the table of entries which follows is as complete as we have been able to make it :—

### ENTRIES FOR THE YEAR 1901-1902.

#### London.

Name of medical school.	Full medical course.	Special courses.	Dental.	Full course, 1900-1901.	Increase or decrease in full medical students over or under last year's figures.
St. Bartholomew's ... ..	84	44	—	87	- 3
Charing Cross ... ..	14	26	28	16	- 2
St. George's ... ..	13	6	—	17	- 4
Guy's ... ..	68	40	43	80	- 12
King's College ... ..	27	146†	—	25	+ 2
London ... ..	64	70	—	74	- 10
St. Mary's ... ..	35	39	1	43	- 8
Middlesex ... ..	19	39	20	22	- 3
St. Thomas's ... ..	49	12	—	47	+ 2
University College ... ..	31	62	—	35	- 4
Westminster ... ..	17	23	1	18	- 1
London School of Medicine for Women ... ..	30	8	—	23	+ 7
National Dental Hospital ... ..	—	—	12	15	- 3
Royal Dental Hospital of London ... ..	—	—	54	50	+ 4

#### Provincial.

University of Birmingham ... ..	*	*	*	*	*
University College, Bristol ... ..	20	1	1	13	+ 7
University of Cambridge ... ..	115	—	—	115	No change.
University College, Cardiff ... ..	13	6	1	17	- 4
Yorkshire College, Leeds ... ..	27	15	1	38	- 11
University College, Liverpool ... ..	50	6	14	68	- 18
Owens College, Manchester ... ..	54	67	32	47	+ 7
University of Durham, Newcastle-on-Tyne ... ..	26	31	7	27	- 1
University College, Sheffield ... ..	12	1	3	8	+ 4

\* Information not supplied.

† Including 68 Anatomy and Physiology, 36 Bacteriology, and 23 Public Health.

**WATER-SUPPLY OF NEWPORT.**—The Waterworks Committee of the Newport (Mon.) Borough Council made an inspection of the reservoirs of the town on Oct. 23rd. The lower reservoir was found to be practically empty, and in the upper reservoir there were about 50,000,000 gallons of water. It was decided to curtail the supply immediately. The water is now cut off from 11 P.M. until 5 A.M.

**WEST OF ENGLAND EYE INFIRMARY, EXETER.**—The annual meeting of the subscribers to this institution was held on Oct. 25th under the presidency of Mr. Smyth Osbourne. The secretary read the ninety-third annual report which alluded with satisfaction to the completion of the first two sections of the new building, they having been formally opened by Lady Clinton on Oct. 4th last. The financial statement showed that the ordinary income was £1435 and the ordinary expenditure £1442. The medical report stated that there had been 3010 patients under treatment during the past 12 months, of whom 2588 had been discharged, leaving on Sept. 30th last 389 out-patients and 33 in-patients under treatment. The daily average number of in-patients during the year had been 45. Mr. Hamlyn, high sheriff of Devon, was elected president for the ensuing year.

# THE LANCET.

LONDON: SATURDAY, NOVEMBER 2, 1901.

## The Isolation Accommodation of the Metropolis.

THE increasing popularity of isolation hospitals and the difficulty which there is in meeting the demands which such popularity creates, form together one of the most serious problems of present-day municipal administration. As far as our experience and information go none of the big cities of the world is so well equipped in the matter of isolation accommodation as is London; and hence it may be of interest to examine the position of the metropolis at this moment in respect of its ability to accommodate its infectious sick. The expenditure upon such provision has been, and is, very material, but notwithstanding the fact that the Metropolitan Asylums Board has more than doubled its accommodation for fever cases since 1891, and that the proportion of scarlet fever admissions to notifications has risen from 42·82 to 75·15, we are still face to face with the fact that more accommodation is needed. In other words, the existing accommodation is not sufficient for the isolation of what may be called the ordinary infectious diseases, or, rather, such diseases as public health administration has, up to the present, deemed it desirable to provide accommodation for—i.e., scarlet fever, diphtheria, and enteric fever. Certainly provision is also at hand for the isolation of small-pox, but unfortunately it has been found difficult to keep unoccupied by other diseases all the beds originally intended for small-pox, and a threatened epidemic of this disease is found rather to dislocate the existing arrangements. More particularly is this the case when the murmurings of an exotic disease like bubonic plague tend to remind us that our boasted immunity from this disease may be imaginary rather than real, and when it is considered desirable to set aside a certain number of beds to isolate first cases of this malady. It is an unfortunate and unaccommodating dispensation of nature that the maximum prevalence of several diseases occurs at practically the same season or seasons of the year. Were there a degree of alternation in their prevalence administrative measures would be simplified. As nature works at present, there is an undue strain placed upon our hospital resources in the autumn and the winter months, and when small-pox tends to prevail there is likely to be a crowding-out of the less serious diseases.

Under these circumstances the Metropolitan Asylums Board has to adapt itself to the exigencies of the situation, and the distribution of its beds at the present juncture does not meet with the approval of the Town Council of the Royal Borough of Kensington, which body has addressed a communication to the Metropolitan Asylums Board on the subject. Briefly stated, the Kensington

Town Council deplores the temporary discontinuance of the admission of scarlet fever and diphtheria convalescents into Gore Farm Hospital at a time when these two diseases are unduly prevalent. This discontinuance has, we take it, been deemed necessary in order to provide, in one or another fashion, for the prevention or control of small-pox and bubonic plague. The Kensington Town Council, while admitting the necessity for the provision of beds for the isolation of small-pox, does not take such a pessimistic view of small-pox prospects as does the Asylums Board, and expresses the hope that the action of the metropolitan sanitary authorities will hold the disease in check. Curiously enough, the action or inaction of the guardians *quâ* vaccination receives no mention in the letter. We must confess that we are unable to share the optimism of the Kensington councillors even while we venture to hope that these views may prove to be correct. It appears to us that if small-pox in anything of the nature of an epidemic arises from the present smouldering embers London may be face to face with a serious emergency within the next few months, especially as the maximum seasonal prevalence of the disease has yet to come. Moreover, the returns of the last few days are not by any means encouraging. It is suggested that the Asylums Board would do well to provide hut accommodation for small-pox on the Joyce Green estate adjoining the hospital ships, but doubtless the managers have already considered, and are still considering, the practicability of this measure. It is conceivable that to provide adequate drainage on a site such as this for a large number of huts may be no simple affair and might interfere very materially with the permanent arrangements. Still, the managers will do well to keep this question to the front. But in the meantime ample accommodation should, in our opinion, be held in reserve for small-pox even if in the interval the accommodation for scarlet fever and diphtheria may have to be curtailed. When the isolation problem is viewed from a broad standpoint the admission has to be made that it is a very difficult matter to provide permanent accommodation which will suffice in the presence of epidemics of two diseases, to say nothing of the possible outbreak of a third. Assuming that such accommodation does not exist the most reasonable course is surely to select for isolation the more fatal class of the diseases in question, and if all cases of any one class cannot be isolated to make a selection of such cases as are most likely to be a danger to the public. Selective action in this sense may have in the future to be exercised more than it has been in the past.

The Asylums Board has now accommodation for over 5000 cases of infectious diseases other than small-pox, and when the projected measures are completed the provision in this sense will amount to nearly 6100 beds. For small-pox the existing accommodation, exclusive of huts on the Joyce Green estate, is some 1500 beds, and when the Joyce Green Hospital is erected 400 beds will be added to this number. This total provision for small-pox is, as Dr. ORME DUDFIELD, the medical officer of health of Kensington, points out in one of his recent reports, materially below the 2700 recommended by the Royal Commission in 1882. Whether the proposed accommodation will prove adequate or not is a subject upon which we would rather not

prophecy. It depends, we think, upon the degree in which primary vaccination and *revaccination* are carried out and upon the *type* of small-pox which we may have to encounter. With neglected vaccination or neglected revaccination and small-pox of a high degree of infectivity all the factors will be present which will enable small-pox to laugh at the recommendations of the Royal Commission. In the absence of the epidemic type of small-pox a smaller number of beds will suffice even with an indifferently vaccinated community.

### Puerperal Eclampsia.

AMONGST the most important of the problems in obstetric medicine that await solution is the causation of eclampsia and the best method of dealing with this disease when it occurs. These questions have recently been fully discussed both at the meeting of German gynaecologists at Giessen and before the Obstetrical Society of London.<sup>1</sup> It cannot be said that either of these discussions has done much to elucidate our knowledge of this condition. The theory that eclampsia is due to a toxic state of the mother's blood is the one that holds the field at the present day. We are, however, still ignorant of the nature of the toxin, ignorant of its source, and ignorant of the precise manner in which it produces its effects. If we follow the teaching of the French school of obstetricians we shall give our adherence to the view that the liver is the organ primarily at fault and that the essential condition is one of hepato-toxaemia, while if we accept the current German teaching we shall believe that the affection of the kidneys is the primary condition and that the other pathological changes met with in different organs play but a secondary part; they are, indeed, to be regarded as the result of the action of the poisons, and not as the cause of their presence in the body. The occurrence of convulsions during labour is a complication of so alarming a character and of so grave a nature that there is a danger of our bestowing too much attention upon the fits themselves and too little upon the very important pre-eclamptic condition—viz., the condition of the patient preceding the onset of the convulsions. The existence of the toxæmia of pregnancy, upon which so much stress is laid by many writers as the *fons et origo* of the majority of the disorders of pregnancy, is hardly as yet placed upon a firm scientific basis. Even if we admit that such a toxæmia does exist there are many blanks in our knowledge of the relationship between it and some of the diseases which it is supposed to produce. We are at the present day in considerable danger of basing our treatment of eclampsia upon a theory which further investigations may show to be far from the truth. The toxic theory no doubt furnishes a good working hypothesis, but in using it we must ever bear in mind the slender foundations upon which it rests.

The discussion at Giessen is chiefly remarkable for the large amount of experimental work that was brought forward, some of it of considerable value. It is mainly by the accumulation of such work carried out in the laboratory that our knowledge of this disease is likely to be increased. The paper read before the Obstetrical Society of London was concerned with the treatment of eclampsia

by saline transfusion. In the discussion that followed many of the speakers expressed some doubt as to the advantages likely to be derived from this mode of treatment. It was pointed out that on their first introduction both morphia and chloral were lauded as infallible panaceas for this disease, and yet at the present time their true value is far from being fully established. In the same way this method of saline transfusion will no doubt have its day of fashion and at last take its proper place in the therapeutics of eclampsia. The treatment is based upon the toxic theory and if this theory be correct it is likely to give good results. There is considerable danger, however, of this mode of treatment being discredited if it be applied indiscriminately to all classes of cases.

We are inclined to think that if a correct knowledge of the causation of eclampsia is ever to be arrived at attention must be mainly directed to the pre-eclamptic stages of the disease. Further investigations must be devoted to careful observation of all departures from the normal in the health of the pregnant woman. Then, and then only, will it be possible to practise preventive medicine—the highest art of all—in the case of the pregnant woman and of the foetus in utero. The opportunities of a scientific study of the various problems connected with pregnancy are at the present day almost *nil*; the length of time such patients remain in lying-in hospitals before their confinement is too short for any prolonged observations to be made, and work of this nature is impossible in private practice. It is an encouraging sign to see that, mainly owing to the strenuous advocacy of Dr. J. W. BALLANTYNE and the generosity of Dr. FREELAND BARBOUR, a bed is to be endowed and set apart for the study of the diseases of pregnancy in the Royal Maternity Hospital of Edinburgh. We can imagine no more worthy object for philanthropy than the endowment of such beds in some of our large maternity hospitals where the diseases of pregnancy and of the unborn child could be investigated with all the advantages of modern science. It is by research in this direction that we are most likely to gain a true knowledge of the problems of eclampsia and of the best means of preventing this dangerous complication of pregnancy.

### The National Dental Hospital.

ON the occasion of the distribution of prizes at the National Dental Hospital and College on Oct. 24th, Dr. G. VIVIAN POORE, who distributed the prizes, observed that it could not have escaped the notice of those assembled that the subjects for which he had handed out rewards were numerous and varied, and that the student of dentistry was expected to have a knowledge not only of the science underlying his professional work but also a knowledge of the more mechanical parts. There was, perhaps, no profession in which science and practice were so intimately blended. There was sometimes an outcry against specialism in medicine, and, perhaps, in some departments of medicine specialism was a little overdone, but nobody could cavil at the whole science and art of dentistry as an unnecessary speciality. It was an absolutely necessary specialty and one which could be perfectly defended and justified. It was well

<sup>1</sup> THE LANCET, April 27th (p. 1207) and May 11th (p. 1336), 1901.

known that the physician was supposed to be an offshoot from, or development of, the priest, and in the same way the surgeon had had his origin with the more mechanical person, the barber, and it was not many centuries ago when the barber and the surgeon were one and indivisible. The barber was a gentleman who wielded a sharp instrument sometimes clumsily and then had to repair the damage, and it was from this that the surgeon had gradually emerged. The dental profession was evolved in the same way and it remained a handicraft down to comparatively recent times; it was only within the memory of some of the older members of the profession that the dentist began to make a stand and determined that his profession should be a real profession, and that it should be established like the other branches of medicine.

It was very curious, said Dr. POORE, to note how every profession had to wait for the advance of collateral professions and handicrafts before it could advance itself, and he instanced as an example the profession of the chemist. Chemistry could not have reached the high condition in which it was now but for the help of the glass-blower. After the advance of chemistry and metallurgy it was possible to advance in dentistry, and there was nothing that had caused the recent progress in dentistry more than the importation at the beginning of last century of india-rubber and the invention of vulcanite which had made so many dental operations possible. Of course it was said of dentistry, as it was said of almost everything else, that as a craft and a science it was old as the hills, and that in Egyptian mummy cases evidences had been found of artificial teeth, but Dr. POORE doubted if the dentures found in Egypt were quite as practically useful as those of the present day. He doubted whether if CLEOPATRA had artificial teeth she wore them much except on a Sunday or when she was going on the water to meet ANTONY, and he rather suspected that when she came home to a little supper with CHARMIAN she took them out. This view of the artificial teeth of the ancients is, we believe, generally held; the dentures were æsthetic, not practical, in their object. In the present day artificial teeth are not only for ornament but also for use, in particular, Dr. POORE pointed out, they robbed old age of one of its disabilities. It was said that with the advance of age all the senses declined with one exception, and that was the sense of taste. There was no doubt but that dentistry had added to the comfort of life; and the profession at large was under a great obligation to the dental branch of it because it was becoming recognised day by day that for general health sanitation of the mouth was all-important and that amongst the measures of preventive medicine, or rather the officers of preventive medicine, the dental profession was taking a first place.

The special branches of medicine have very often originated great advances which are of value to medicine as a whole, and perhaps this cannot be better illustrated than by the obligation of medicine and of surgery to the dental profession in the matter of anæsthetics. Dr. POORE laid stress upon this, pointing out that dentists had to deal largely with an operation which caused short, sharp pain, that to them the practicability of annulling that pain, which was only momentary, occurred, and that therapeutic measures were devised and carried out successfully very largely at their instigation. The dentists had to wait

until the chemist had provided them with anæsthetics but they first dared to use them. Dr. POORE concluded a highly interesting address by alluding to the life of the dentist. Dentistry, he said, while a most valuable side of medicine, was a harassing and trying side, and it was very important for its followers to have some pursuit to relieve the burden of their professional life, some pursuit, scientific or otherwise, which took them out of doors, which refreshed their minds and gave them health. In our experience dentists take good care to get the surcease from toil which Dr. POORE recommends for them. They seem to us to cycle, to golf, and to fish with enviable regularity.

## Annotations.

"Ne quid nimis."

### THE HEALTH OF THE KING.

WE have every ground for stating that the recent rumours concerning the health of His Majesty the King are entirely without truth or foundation. He is in good health and has undergone no operation whatever. Some of our readers may have seen statements in certain newspapers so detailed in character as almost to preclude their resting entirely upon journalistic imagination. We are glad to be able to assure them that they need give no credence whatever to the sinister but, happily, untrue stories the publication of which cannot be too strongly deprecated since they cause needless and poignant anxiety to the country at large.

### THE IMPROVEMENT OF THE HUMAN BREED.

A HUXLEY Memorial Lecture, established by the Anthropological Institute in 1900 in memory of the late Professor Huxley, is given annually at the opening of the institute's session in October on some subject illustrating the work of Huxley in connexion with anthropological science, especially in regard to the origin and development of mankind. This year's lecture was delivered by Mr. Francis Galton, formerly president of the institute, who took as his subject the Possible Improvement of the Human Breed under the Existing Conditions of Law and Sentiment. The aim of the lecturer was to give a scientific basis to the problem of race improvement. The lecture will appear in full in the next issue of the half-yearly journal of the Anthropological Institute to be published in January next.

### LORD ALVERSTONE AT ST. GEORGE'S HOSPITAL.

THE prize-giving at a metropolitan hospital is generally graced by the presence of some person eminent in science, literature, or art, who hands over the prizes to the fortunate recipients and is expected to deliver his soul upon some subject more or less connected with the art of medicine. The prize-giving at St. George's Hospital, held on Oct 28th, was honoured by the presence of the Lord Chief Justice of England, and the meeting was held in the board-room, being presided over by the Dean of the School, Dr. Isambard Owen. Lord Alverstone expressed his thanks for the honour done to him in asking him to be present and with becoming modesty mentioned that his chief claim to be chosen was that he had been an almoner of gifts for an object closely connected with the welfare of the medical profession. Nearly 20 years ago a distinguished friend of his, a graduate of Cambridge and an old Harrovian, had left at his death a sum of money to be given at the discretion of the speaker to found a scholarship either for science or medicine in the University of Cambridge or of London. Lord Alverstone continued that mindful of his own connexion with the University of Cambridge he had devoted the money to that corporation and had

founded the John Lucas Walker Studentship in Pathology. The Lord Chief Justice went on to speak of the enormous advances which had been made during the past century, not only in medicine and surgery, but also in the character and status of medical students. He continued by remarking that some 12 years ago in the course of his professional work he had been much struck by the want of intercommunication between the various hospitals both in the metropolis and of these with the great provincial hospitals. Matters, however, might have improved since then. We think that we can assure Lord Alverstone that matters have improved. Owing to the multiplication of medical societies, to the reports of the proceedings of these societies in the medical press, and to the greater facilities for travelling, any work done in any great hospital of the United Kingdom is known throughout that kingdom in a very short space of time. We are certain that if any discovery is made which apparently tends to the good of humanity its discoverer is the last man to keep it back for the benefit of his own school. There is one thing, however, which may have led Lord Alverstone to imply—as we gather from the report of his speech that he did imply—that the medical profession is wanting in “liberality of dispensation of knowledge,” and that is this: discoveries in the medical profession, whether new operations, new facts in pathology or bacteriology, new views of treatment, or new theories as to disease and its causes, must be carefully checked over and over again. Premature disclosure, as happened quite against his will in the case of Dr. Koch's tuberculin, can lead to nothing but disappointment. So it is that perhaps it appears to a layman that the discoverer of some advance in the field of medicine or surgery has been exploiting such discovery for himself. But those who are among the toilers in such fields know that the discovery is only kept back until the crop is fully ripe.

#### GUY'S WILL.

REFERRING to the notice to correspondents under the heading of “Looking Back” in this issue we have extracted the following interesting particulars connected with Thomas Guy's will from the “Dictionary of National Biography,” vol. xxiii., p. 391. “Having thus a vast fortune he decided to carry out a project long contemplated, of providing for the numerous patients who either could not be received in St. Thomas's Hospital or were discharged thence as incurable. He consequently, in 1721, took a lease from the St. Thomas's governors of a piece of ground opposite the hospital for 999 years, and having pulled down a number of small houses began the erection of a hospital on the site in 1722, intending to place it under the same administration. When the building was raised to the second story he changed his mind and decided to have a separate government. The building, which cost £18,793, was roofed in before the founder's death, which took place on Dec. 27th, 1724, in his eightieth year. He was buried with great pomp, after lying in state at the Mercer's Chapel. Guy's will went through three editions in 1725 and was reprinted by the governors of Guy's Hospital in 1732. It was signed on Sept. 4th, 1724, and bequeaths lands and tenements in Staffordshire, Warwickshire, and Derbyshire to grandchildren of his deceased sister, about £75,000 in 4 per cent. annuities, mostly in sums of £1000, to about 90 cousins in various degrees, as well as some persons apparently not relatives, and annuities varying from £10 to £200 per annum to others, mostly older relatives, being the interest on about £22,000 stock. £1000 was left to discharge poor debtors in London, Middlesex, or Surrey in sums not exceeding £5 each (600 persons were relieved by this benefaction, Maitland, p. 668). £400 per annum was left to Christ's Hospital for the board and education of four poor children annually, to be nominated by the

executors, the governors of Guy's, with preference to Guy's relations. His almshouse and library at Tamworth was left in trust for the maintenance of 14 poor persons of parishes surrounding Tamworth, excluding the town itself, preference being given to his own poor relations, a portion of the endowment being applied to apprenticing children, and nursing four, six, or eight persons of the families of Wood or Guy; while £1000 was left to other persons for charitable purposes. The remainder of his fortune, amounting to more than £200,000, was left to Sir Gregory Page, Bart., Charles Joye, treasurer of St. Thomas's Hospital, and several other of its governors, including Dr. Richard Mead (*q.v.*) to complete his hospital for 400 sick persons who might not be received into other hospitals from being deemed incurable, or only curable by long treatment; lunatics up to the number of 20 were to be received for similar reasons; but full discretion was given to the executors for varying the application of the funds. The executors and trustees were desired to secure an Act of Parliament incorporating them with other persons named, all governors of St. Thomas's, to the number of 50, with a president and treasurer; they were to purchase lands, ground rents, or estates with the residuary estate, and maintain the hospital by the proceeds, any surplus to be applied to the benefit of poor sick persons or for other charitable uses. The will was proved on 4th Jan., 1724-5. The required Act of Parliament was obtained in the same year (11 George I., cap. xii.), and gave power to the executors to set up a monument to Guy in the chapel, which was designed by John Bacon, R.A.”

#### “ARSENICAL POISONING FROM BEER-DRINKING IN ITS RELATION TO THE STUDY OF INEBRIETY.”

IN the Proceedings of the Society for the Study of Inebriety for September is published a paper with the above title by Dr. T. N. Kelynack. The writer draws attention to the recent outbreak of arsenical poisoning in beer-drinkers in the north of England and describes the clinical features of the cases which occurred; he also discusses the etiology of peripheral neuritis, upholding Schmiedeberg's teaching that alcohol is a true nerve and muscle poison; he insists, further, that its toxic action may be augmented and enforced by other agents. Dr. Kelynack then asks the question, What fresh light does the recent outbreak of arsenical poisoning in beer-drinkers throw on the pathology of inebriety? He argues that alcohol and arsenic act upon nerve tissue in many ways in a similar and in some respects in an identical manner, and that therefore it will probably be found that very real and definite cellular changes underlie what is usually termed inebriety. He supports this theory by quoting the works of Mott, Ford Robertson, and others in this country, and the researches especially of Lugaro and Marinesco among continental investigators, which have afforded evidence as to the true nature of many forms of mental disease, and Dr. Kelynack is of opinion that these observations when further pursued will bring inebriety into the group of morbid conditions dependent upon derangement of nerve-cell vitality. He also considers that in the future the influence of possible enforcing and accentuating agencies, such as arsenic, will have to be considered more fully. This drug, alcohol, and similar bodies have been proved to be capable of acting directly on the neuron. The degree of action depends upon the nature and intensity of the toxic agent, and doubtless also on many physico-chemical changes the nature of which has not yet been determined. We agree with the writer in his remarks on “considerations for the future.” Beer has undoubtedly been long contaminated with arsenic in some districts. The danger from contaminated malt and the extensive use of sugar substitutes in this country have

been amply demonstrated and we trust that history will not repeat itself. We support Dr. Kelynack in saying that scientific investigation should be undertaken by those intrusted with the care and management of inebriates in the various retreats and reformatories. The admirable work which is being carried on by pathologists in connexion with our public asylums, and especially in those under the control of the London County Council, warrants the belief that similar researches into the factors underlying inebriety would be fruitful in valuable results both to science and to humanity.

#### SMALL-POX IN LONDON.

SMALL-POX is increasing day by day. On Sunday, Oct. 27th, there were 21 fresh cases admitted to the hospital of the Metropolitan Asylums Board; on Monday, Oct. 28th, there were 25 fresh cases; on Tuesday, Oct. 29th, there were 28 fresh cases; and on Wednesday, Oct. 30th, there were 29 fresh cases. In view of the continuation of the epidemic it is stated that the staff of the General Post-Office have been strongly advised to be revaccinated without delay.

#### THE ELECTION OF DIRECT REPRESENTATIVES.

OUR advertisement columns contain formal notices that, pursuant to the Medical Act of 1886, elections are about to be held of two members to represent the registered medical practitioners of England on the General Medical Council and of one member to represent the registered medical practitioners of Scotland. The candidates as yet before the English constituency are Dr. J. G. Glover, Mr. George Brown, Dr. S. Woodcock, Mr. George Jackson, and Dr. C. W. Hayward: while there will be probably a contest in Scotland as Dr. C. E. Robertson has announced his intention of standing.

#### SPONTANEOUS RUPTURE OF THE ABDOMINAL WALL IN ASCITES.

SPONTANEOUS rupture of the abdominal wall in ascites is a very rare incident. Most of the published cases belong to a period when paracentesis was less practised than it is now. At the meeting of the Société Médicale des Hôpitaux of Paris on July 19th M. Pierre Merklen and M. Gougelet related the following case. A woman, aged 68 years, had ascites for nearly two years, probably from alcoholic cirrhosis of the liver. The heart was weak and there was œdema of the lower limbs. From May, 1899, to February, 1901, paracentesis was performed 25 times, and from 14 to 16 litres of fluid were removed on each occasion. The patient had an old umbilical hernia. The abdominal distension caused the opening to enlarge until several fingers could be passed into it and the hernia became as big as a large orange. It diminished after paracentesis, but in spite of methodical compression enlarged again. The umbilicus gradually became thinner, and in December, 1900, a little blackish scab appeared on its summit. This disappeared after paracentesis, but then recurred. On March 15th, 1901, 17 days after the twenty-fifth paracentesis (the interval between the paracenteses being usually 25 or 26 days) the scab fell off, disclosing a fistula of the breadth of the meatus urinarius and with suppurating walls. The ascitic fluid at once began to flow. The patient, seated on a chair, voided it in about two hours. On the following day there was continual oozing with disappearance of the abdominal swelling and the œdema of the legs. But the day after rupture there were abdominal pains and fever, and the next day intractable vomiting and dry tongue. Death from peritonitis occurred on the seventh day after rupture. In the recorded cases of rupture of the abdominal wall in cases of ascites paracentesis is not mentioned. The umbilicus was most frequently the seat of rupture and often, but not invariably, an umbilical hernia prepared

the way for distension and sloughing of the umbilical cicatrix. In cases of ascites complicated by a communicating hydrocele rupture has taken place in the scrotum. Rupture is most likely to occur where the skin is thinnest. However, it has occurred in the abdominal wall between the pubes and umbilicus—after phlegmonous gangrene. In the other cases rupture was preceded by greater or lesser sloughing of the skin and suppuration; hence the danger of peritonitis. Death is the usual result of rupture at the umbilicus, but recovery is not impossible and old writers thought this "puncture made by nature" a fortunate incident. Rupture of the abdominal wall in cases of ascites should be prevented. The only treatment when sloughing is threatened is frequent paracentesis.

#### THE VENTILATION OF THE "TWO PENNY TUBE."

THERE is no doubt that the measures adopted on the Central London Railway for the ventilation of the "tube" are, in face of the enormous number of people daily travelling on the line, inadequate. We pointed out some time ago that it is well known that the air of the "tube" has not grown pleasanter as the popularity of the system has increased. Even on passing the booking-offices of the stations or the lift exits an unpleasant sickly whiff is experienced. Our remarks are now fully borne out by the results of a series of interesting experiments made by Mr. A. Wynter Blyth, the medical officer of health of St. Marylebone, and his son. Details of these experiments will be found in the presidential address which we publish in our present issue delivered by the former at the annual meeting of the Incorporated Society of Medical Officers of Health on Oct. 25th. It is found that the carbonic acid gas at some stations was no less than 10·3 parts per 10,000, while between the stations—that is to say, in the tunnels—it reached 11·9. Now, since the average amount of carbonic acid gas in the outer air seldom exceeds 4 parts per 10,000 and that whenever the amount of carbonic acid gas in the air of a room exceeds this amount by two parts per 10,000 it is not fresh and has a stuffy smell, six parts per 10,000 has been fixed as the limit of impurity. The "tube" air contains nearly twice this amount. We remarked long ago that it is nonsense to say that the mere passage of the trains through a tight-fitting tunnel is sufficient to ensure satisfactory ventilation. Mr. Wynter Blyth's experiments clearly show that where the ventilation depends entirely on the passage of the trains, although there is so much movement of air, and so much sucking in from above and blowing out from below, a good portion of the air must be driven backwards and forwards unchanged in the tube; in other words, the tunnel air is diluted, but the whole of it is never swept out. This has all along been our contention. The amount of carbonic acid gas in the tunnels—and, be it remembered, this is very largely, if not entirely, of human origin—is more than double that of the outside air. It would be interesting to know what a bacteriological examination would reveal. As time goes on, unless additional and more effective ventilation by fans is adopted, the condition of the tunnel will go from bad to worse. These observations might usefully have been extended to the air of the cars; the results would probably have shown a greater pollution still. It is remarked that even as it is, the air of the Metropolitan Railway, as regards carbonic acid, is more than twice as bad. We are not sure that this is correct. for in the methods usually adopted for estimating carbonic acid gas the sulphurous gases are included. We are inclined to doubt whether the carbonic acid from human sources is any more on the Underground Railway than in the tunnel of the "Two penny Tube." The chief impurities in the former case are derived from coal. It is, further, evident that others

share our view as to the unpleasant character of the air on the Central London Railway, for we understand that an experiment with a system of ozonisation is going to be made shortly by a syndicate.

#### THE LATE PRESIDENT OF THE UNITED STATES.

THE medical staff attending the late President William McKinley, whose lamented death occurred on Sept. 14th, have issued a very detailed clinical and pathological history of the symptoms and the effects of the bullet-wound. This report, which would occupy about 16 to 18 columns of THE LANCET, will be found in *American Medicine* of Oct. 19th and is signed by the following gentlemen: P. M. Rixey, Matthew D. Mann, Herman Mynter, Roswell Park, Eugene Wasdin, Charles McBurney, and Charles G. Stockton.

#### THE INFLUENCE OF CLIMATE UPON FUNCTIONAL NERVOUS DISORDERS.

PROFESSOR F. S. PEARCE, neurologist to the Philadelphia Hospital, in the *New York Medical Journal* of Oct. 5th deals with the interesting and practical subject of climatic influence in regard to functional nervous and mental disorders. The effect of decreased atmospheric pressure in permitting a freer circulation in the surface of the body is an important fact in aiding circulation, just as massage applied to the body also increases the circulation of blood owing to the *vis a tergo* produced by the masseur. It is also possible that, as pointed out by Jaquet,<sup>1</sup> the action of high altitudes is not only a diminution of pressure but a chemical modification of the blood, in that more nitrogen is admitted into the blood under conditions of lowered atmospheric pressure. So that probably there is a double mode of action—viz., an increase of the peripheral circulation and an increase of the nitrogenous element in the general circulation. To these must probably be added the purity of the air and the more intense sunlight of high altitudes, both of which, according to Dr. Pearce, act as stimulators of bodily metabolism. The effect of winds is reflex, the strong stimulation of the skin and peripheral nerves causing increased excitability of the general bodily functions. The results, however, are not uniformly beneficial in all subjects. Hence in neurasthenia, where a weakness and irritability of the nervous system are the dominant conditions, high winds are to be avoided and altitudes above 2000 feet should also be eschewed, because they tend to hasten metabolic processes too rapidly and therefore cause physiological overwork of the central nervous system. This is also shown by the palpitation of the heart occurring in normal (or nervous) people at high altitudes. Similarly hysterical subjects are found to do badly at high altitudes for the same reason of increased excitability caused by over-activity in the peripheral circulation, and insomnia in them is more pronounced at heights, due perhaps to the increased circulation in the membranes of the brain. Climates with continual fogs and a low atmospheric pressure are also bad for the neurasthenic and the hysterical and the tendency to "catch cold" is aggravated in a moist atmosphere. Melancholia, on the other hand, needs increase of circulation and of metabolism, and subjects of melancholia usually improve by going to the mountains, where reduced atmospheric pressure, purer air, and more intense sunlight are obtainable than in the lowlands—a trio of meteorological conditions with a powerful adjuvant effect. High winds will be stimulating to the melancholic or to the hypochondriac and will tend to benefit him. Chorea is a disease made worse by high winds and increase of altitude beyond the happy mean of a few hundred

feet. As regards insomnia Dr. Pearce looks upon a condition of cerebral vaso-dilatation as being the main factor, so that whatever will tend to depletion or vaso-constriction of the brain will tend to allay insomnia. Thus it is that warm baths and massage before bed-time help to secure sleep. If these measures and drugs fail nothing is better than a quiet sea-voyage.

#### THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Cape of Good Hope received at the Colonial Office on Oct. 24th states that for the week ending Oct. 19th the cases of plague in the Cape Peninsula numbered 1, that of a European. At Port Elizabeth the cases numbered 1, also that of a European. For all other places the cases numbered 1, that of a Chinaman. The deaths from plague were as follows: Cape Peninsula, 1, a European; Port Elizabeth, 1, a Chinaman; all other places, 1, a Chinaman. The area of infection remains unchanged with the exception of 1 case of plague, that of a Chinaman discovered at Uitenhage. The cases of plague among persons under naval and military control number 1, that of a private in the 1st Battalion Royal Scots employed as cook at Greenpoint Camp, Cape Town. As regards the Mauritius a telegram from the Governor received at the Colonial Office on Oct. 25th states that for the week ending Oct. 24th there were 71 cases of plague and 37 deaths. With regard to Egypt the Director-General of the Sanitary Department writing from Cairo Oct. 20th states that during the week ending Oct. 20th 3 cases of plague and 2 deaths from the disease have been reported from all Egypt. Alexandria has reported 1 case and 1 death. Mit-Ghamr 1 case and Zeftah 1 case and 1 death. All cases and deaths during the last week have occurred among Europeans of Greek nationality.

#### POSTPONEMENT OF THE SECOND INTERNATIONAL CONGRESS OF THE MEDICAL PRESS.

AN official circular has reached us announcing the postponement of the Second International Congress of the Medical Press. The first congress, it will be remembered, was held in Paris from July 26th to the 28th, 1900. It was then agreed that national associations of the medical press should be formed in the various countries represented. The Paris committee which had organised the first congress was to prepare a scheme or a set of rules for the formation of an international association of the medical press. The draft of this project was to be sent to each national association, by which it was to be discussed and, if necessary, amended. Then the delegates of each national association were to meet this year in Brussels, to submit their amendments to each other, and jointly to draw up a definite scheme. The meeting of these delegates was to be held a day or two before the assemblage of the Second International Congress and the congress was to confirm or to amend the work of the delegation. The plan, it will be seen, was thorough in all its details, and it was fully explained in THE LANCET of April 27th last (p. 1237). But it is easier to frame a constitution on paper than it is to carry it out in practice. As we foresaw, the position and character of the various medical journals are so very different that it is no easy matter to bring them together. Then there is the fundamental difficulty of defining what constitutes a medical journalist. The Brussels committee appointed to organise the Second International Congress of the Medical Press now explains in its circular that it has not yet been able to accomplish its task. There has been an enormous amount of correspondence and this has rendered manifest the disagreement that

<sup>1</sup> Archives des Sciences Physiques et Naturelles, December, 1900.

prevails as to the nature of the questions that should be submitted to the congress. The principle of forming an international association of the medical press is enthusiastically approved, but there is a great diversity of opinion as to how this association should be composed. To hold another congress before a better understanding can be arrived at would only result in eloquent but probably futile discussions. Therefore, the Brussels Committee of Organisation proposes that the second congress should be postponed till next year. It further proposes that the central committee nominated at Paris last year should utilise the meeting of this year for the constitution of a universal committee and the elaboration of the statutes of the international association. There is every reason to believe that this project will be accepted. In that case the Paris Central Committee will call upon the medical press of each section to designate representatives to attend this proposed preparatory meeting. The circular concludes by requesting the medical journals to which it is addressed to approve this plan of action. Communications to that effect, or making any other suggestions, should be addressed to the secretary, Dr. V. Pechère, 140, rue de la Loi, Brussels. Under these circumstances it seems to us that the best course is to endorse the action of the Brussels committee. It is certainly no use to hold a congress unless there is a fair prospect of arriving at a general and practical agreement.

#### BLOOD-PRESSURE AND CHLOROFORM.

IN the course of some very instructive experiments on the effect of chloroform upon the blood-pressure in the lower animals Dr. R. D. Rudolf of Toronto records the following observations. He was struck by a curious fall of pressure which occurred more than once when dogs were under the influence of morphine and chloroform. In these cases the latter drug had been discontinued for several minutes before the fall occurred, and although no steps to restore the pressure were taken—indeed, while the conditions of experiment remained unchanged except by the lapse of time—the pressure rose to its original level. The tracings given suggest vagal irritation, a possibility Dr. Rudolf discusses, but no reason for the irritation was present, and as the pressure recovered itself under unchanged conditions it is hard to understand how such a factor was really at work. With regard to the effect of gravity upon the circulation, this observer's experiments confirm those of Leonard Hill and Barnard. Thus a chloroform-morphined animal will, upon raising its head and body, show a marked fall of carotid pressure; when it is placed horizontally the blood-pressure becomes over-compensated but soon returns to the normal. The compensation is held to be due partly to increased rate of heart-beat and to arterial constriction and partly to contraction of the abdominal walls. Dr. Rudolf found that "the lowering of a pole of the body does not raise the arterial blood-pressure in it so much as raising that pole lowers it." It is important to note that dogs vary very much in the extent to which blood-pressure is modified by the action of gravity under chloroform, and that cats especially are immune from such effects, while, as Leonard Hill has pointed out, some monkeys actually over-compensate, showing an increased blood-pressure when put into the feet-down posture. Generally, animals which habitually carry themselves vertically compensate more rapidly and better than those which normally assume a horizontal position. But such compensation sooner or later fails if the feet-down posture is maintained. Dr. Rudolf believes further—and his tracings appear to bear out his contention—that pressure exerted upon the abdomen is unable to restore carotid blood-pressure unless it is so firm as to compress the aorta. He regards as wholly inadequate the commonly accepted view that pressure acts by forcing

the blood out of the abdominal veins and so fills the heart. It has long been known that a tourniquet upon the abdominal aorta is one of the best means of raising general blood-pressure. Further, he finds that division of the spinal cord always produces a great lessening in the compensation for the feet-down position. Even when the vessels of the splanchnic area are not paralysed, the spinal section having been made well below the seat of the issue of these nerves, a very marked fall seems to follow the feet-down position, while no compensation occurs. "This would point," Dr. Rudolf says, "to the fact that the vessels of the lower part of the body are very largely concerned in the keeping up of the normal blood-pressure in the feet-down position, because when they are paralysed the pressure markedly falls." These conclusions—or perhaps it is more accurate to say these facts—are of great importance and are grouped by Dr. Rudolf as an introduction to his further researches.

#### MODE OF TERMINATION OF THE RENAL NERVES.

IN an article contributed to the nineteenth volume of the *Anatomischer Anzeiger* Dr. v. Smirnow gives the results of his investigations on the mode in which the renal nerves terminate. It was found that besides the nerves distributed to the walls of the vessels there were others which are in close relation to the tubuli uriniferi. These last form a plexus on the membrana propria of the tubules, and from the plexus varicose fibres proceed that terminate in dendritic or tree-like branches named "epilemmal nerve endings." Such endings are found both on the outer surface of the capsules of Bowman and upon the contorted tubes. Other branches of the plexus perforate the membrane and running between the cells of the tubuli and on their surface terminate in very different ways in the form of "hypolemmal nerve endings." They often present a grape-like aspect and resemble the nerve terminations that are found in the salivary glands.

#### THE CHEAP PISTOL AGAIN.

WRITING of the murder of President McKinley we dwell upon the unnecessary and avoidable danger to human life which is the result of the unrestricted sale of cheap pistols—toys which are useless for purposes of self-defence because they are untrustworthy, but which fired point-blank and favoured by chance become deadly weapons in the hand of the murderer or suicide. Two recent crimes committed in London and prominently reported in the newspapers have again illustrated the need for regulating or for suppressing by the imposition of duties or otherwise a trade which endangers the lives of peaceful citizens while conferring no compensating advantage upon anyone. In the case of what has been dubbed the "Blackfriars tragedy" two lives were lost. The murderer killed himself on the spot; his victim lingered for many days but has now succumbed; and her husband, it has been stated, might have shared her fate had not something hard in his pocket or his clothing obstructed a bullet from the gimcrack weapon which had already wrought such dire mischief. In the "Leicester-square tragedy" one victim, again the one who fired the shots, has succumbed, while the other appears to be on the road to recovery, although shot in the body not far from the heart at close range. Instructive evidence has been given at the inquest in this case as to the purchase of the weapon. It was bought in Houndsditch for 5s. 6d., and as there was evidence that the young foreigner who bought it was practically destitute we may infer that had the desired firearm cost pounds instead of shillings it would have been beyond his means, while the necessity for obtaining a ten-shilling gun licence before being allowed to possess it might have proved an insurmountable obstacle. In both of these cases murder and

suicide might, as we are aware, have been committed without firearms, but murder and suicide by poison, the bludgeon, the knife, or other possible agencies would have been far less easy, rapid, and certain. It is the cheap pistol which places the lives of ruler and subject alike in the hands of the criminal and the insane, whether those with murderous propensities be weak or strong, cunning or stupid, irresolute or determined, and the matter is one which deserves the attention of Parliament, to be bestowed irrespectively of party politics or of the complaints of individual constituents.

#### DIAGNOSIS OF SMALL-POX.

At a meeting of the Johns Hopkins Hospital Medical Society held on May 20th, 1901, and reported in the September number of the *Bulletin* Dr. Otley J. Porter of Columbia, Tennessee, described an epidemic that has recently prevailed in that section of Tennessee in which he lives. For a time the diagnosis was in dispute, some regarding it as chicken-pox, others as a new sort of eruption—"the bumps"—and a few recognising it as true small-pox. Meanwhile, in the uncertainty there was no efficient action or isolation and the disease spread until there were 1000 cases. Dr. Porter exhibited casts of the eruption and threw pictures on the screen showing that the disease differed in no way from the small-pox of the text-books, there being cases of hæmorrhagic, confluent, semi-confluent, and discrete small-pox as in other epidemics. The mortality also was the same, all the hæmorrhagic cases (five or six), 40 per cent. of the confluent, and from 10 to 15 per cent. of the discrete dying. In the 1000 cases there were some 15 cases of the disease in the fœtus in utero, several of which Dr. Porter had himself delivered. In the subsequent discussion Dr. Fulton said that it was not surprising that errors of diagnosis had been frequent in the history of the small-pox epidemic prevailing in the United States, for the disease might depart widely from the text-book description, though not more widely than typhoid fever did, and these variations were no less manifest in its epidemic characteristics than in the individual cases. The medical student of to-day had no chance to observe the disease, and had therefore no mental picture of the disease other than that gained from the text-books. Comparatively few practitioners under 50 years of age had seen the disease, while the older men remembered it by the more impressive characteristics of its appearance years ago.

#### "VOLCANIC ACTION AS A CAUSE OF OUTBREAKS OF EPIDEMIC DISEASE."

UNDER this heading Dr. Noel Bardswell of the Deeside Sanatorium at Banchory, Aberdeenshire, wrote an essay which gained the Parkin prize of the Royal College of Physicians of Edinburgh in 1900, and is published in the October number of the *Edinburgh Medical Journal*. In 1851 Dr. John Parkin, from whom this prize derives its name, brought out a large work on "The Remote Cause of Epidemic Diseases," in which he took the view that volcanic action was to be regarded as a factor in the causation of cholera and other epidemic diseases. Speaking generally the countries most liable to earthquakes are Portugal, Italy, Beloochistan, Afghanistan, the Bengal Presidency of India, Japan, Mexico, and the Pacific coast of South America. Dr. Bardswell is of opinion that the presence of volcanic activity in a country as a whole has no obvious effect on the death-rate or incidence of epidemic disease, but there is an evident difference in this respect between the volcanic and the non-volcanic portions of such countries. He applies this argument to selected portions of the United States of America and to selected portions of Italy, but, as he himself admits, the results obtained in this way must be received with caution. It seems to him, however, to be not unlikely

that volcanic action may have an effect on the mortality in towns possessing modern water-supply and drainage systems. Yokohama in Japan is situated in a district almost constantly under the influence of seismic disturbance and formerly had a very high death-rate from epidemic diseases, especially cholera and typhoid fever, but since the reservoirs and other water receptacles have been incased in puddle-clay and special precautions have been taken in the laying of the water-mains the health of the town has greatly improved. The methods adopted to guard against injury to the water service by earthquake shocks have been described by Mr. Turner in the *Transactions of the Institute of Civil Engineers*, vol. c. In 1887 a fairly severe shock of earthquake traversed the Riviera and did a great deal of damage. In addition to the destruction of houses, great cracks were made in cesspools and drainage-pipes were rendered leaky. In the three towns of Nice, Cannes, and Mentone the combined deaths from enteric fever were as follow:—41 in 1886, 66 in 1887, 115 in 1888 (the year after the earthquake), and 84 in 1889. The effect of earth tremors upon drainage and water-supply systems is, therefore, of much practical importance in certain localities.

#### BREAKING UP THE STREETS.

THE nuisance, the waste of time, the loss of temper, and the expense incident upon the fatuous way in which companies of various sorts—to say nothing of vestries or borough councils and the Post Office—break up the roads and footways have been well known to everyone for some time past. At last, however, there are signs that the hitherto patient worms, namely, ratepayers, are turning and the various articles and letters which have appeared in the public press are ominous of a gathering storm. Repairs and alterations are necessary, but what is absolutely unnecessary is the exasperating manner in which the blockage is made to be consecutive. We have a personal acquaintance with a certain street in South Kensington which recently for some 13 months was up in one portion or another. We have forgotten the exact order in which the various companies descended on their prey, but one after another came—electric lighting companies, hydraulic power companies, telephone companies both National and Imperial (i.e., the Post office) until the road and footways were impassable. Finally, the vestry relaid the paving of the footways. Scarcely was the mortar between the stones dry when they were all grubbed up again for the laying of pipes or wires. Undeterred by this the vestry next enclosed the whole roadway and with commendable promptitude relaid it with new wood blocks. Directly it was finished the owners of some new flats dug a trench from the middle of the roadway to the pavement for some connexions for electric light. The tradesmen in the street naturally complained bitterly, but no redress was obtainable. From a letter which appeared recently in a contemporary the same process is going on in Chester-square. And all over London the same idiotic want of organisation is apparent. A system of universal subways is perhaps utopian, and even were such a system possible gas, electric, and water mains could not be laid in the same tunnel for fear of explosion. But some relief from the present distress must be found. As we write, the Strand, which was relaid with new wood this year and which has only just recovered from a severe attack of electric-lighting company and Post Office, is a chaos opposite Agar-street owing to the operations of a water company.

THE Presidential Address of the Chelsea Clinical Society was delivered on Oct. 15th at the Jenner Institute by Dr. Charles Morris, C.V.O., the subject being "Some War Sequelæ." The address was an account of work done at home amongst sick and wounded officers from South

Africa and will be published in a later issue of THE LANCET.

DR. JUDSON S. BURY, physician to the Manchester Royal Infirmary, will give the Bradshaw Lecture before the Royal College of Physicians of London on Tuesday, Nov. 5th, at 5 P.M. The subject is "Prognosis in Relation to Disease of the Nervous System."

AN investiture was held at St. James's Palace on Oct. 29th when many gentlemen who have been awarded honours in connexion with the Army Medical Services in South Africa received their decorations at the hands of His Majesty.

## THE GENERAL MEDICAL COUNCIL: ELECTION OF DIRECT REPRESENTATIVES, 1901.

TO THE REGISTERED PRACTITIONERS OF ENGLAND AND WALES.

LADIES AND GENTLEMEN,—At the urgent solicitation of medical brethren in whose judgment I have confidence I beg to offer myself as a candidate for election to the General Medical Council.

I have been in general practice in Manchester 35 years, during which period I have held appointments as Poor-law medical officer, public vaccinator, and certifying surgeon to factories. I am a member of the Central Council and chairman of the Parliamentary Bills Committee of the British Medical Association and I am also a member of the Reconstitution Committee whose preliminary report was approved at the last annual meeting.

I think that the time is ripe for an amendment of the Medical Acts and in my judgment the most pressing requirements are:—

1. Reconstitution of the Medical Council.
2. Increased Direct Representation.
3. One one-portal system of entrance to the profession.
4. The punishment of practice for gain by unregistered persons.
5. The regulation of medical aid societies.
6. The registration of obstetric nurses.

I am strongly of opinion that the representatives of universities and medical corporations on the General Medical Council should be elected by their respective medical graduates and diplomates or that the number of Direct Representatives should be largely increased and that a system of district representation should be established.

The fortieth clause of the Medical Act of 1858 requires to be so amended that practice for gain, and not assumption of title only, by unregistered persons should be made penal.

Increased power should be given to the Medical Council so that registered persons who accept appointments in medical aid associations, which exploit the public at the expense of the profession by advertisements and touting, could be dealt with rigorously.

I am *not* in favour of the registration of midwives as independent practitioners. I have always advocated the registration of obstetric nurses whose functions should be strictly limited and upon whom nursing duties should be imposed. I think also that the work of these registered women should be conducted under medical control.

The minimum age at which a medical student can be registered should be 17 years, and a uniform system of entrance examinations, under the authority of the Medical Council, should be established. The five years' curriculum after registration of studentship should be rigidly maintained.

Mr. Victor Horsley is among those of my friends who have strongly urged upon me the duty of offering myself as a candidate at this election, and I much regret that Mr. Horsley is, owing to the wording of the Medical Act, unable to resign and offer himself for re-election at this time. It would have afforded me pride and pleasure to be associated in the candidature with a man who has rendered such splendid service to the profession. If you elect me I believe that I shall act in complete harmony and concord with Mr. Horsley and other Direct Representatives in promoting what I think to be the true interests of the

profession—always the true interests of the public—and it shall be my constant endeavour to justify the confidence reposed in me.

Yours faithfully,  
Old Trafford, Oct. 28th, 1901. S. WOODCOCK.

TO THE REGISTERED PRACTITIONERS OF ENGLAND AND WALES.

LADIES AND GENTLEMEN,—As one who believes it to be essential that the General Medical Council should undergo some radical alterations and improvements, and who trusts that he is to a considerable extent qualified to assist in the proper carrying out of these modifications, I am coming forward as a candidate at the approaching election. The foundation of my claim is that I believe that the General Medical Council should be essentially concerned with the welfare and interests of the general medical profession and the safety of the public, and not, as at present, only with trying to reconcile the various selfish interests and jealousies of the different corporations and licensing bodies.

The constitution, procedure, and finances of the Council require thorough revision, and the members must directly represent the profession—not the restricted councils of each corporation. The present unfair treatment suffered by our Direct Representatives must be met by sending resolute men who will not flinch from asserting the wishes and interests of the general profession, no matter how bitterly the vested interests oppose; and in some instances this opposition has overstepped the limits of mere bullying and become absolutely illegal.

It is especially in such circumstances, and also in the necessary amendments to the Medical Act and other legislation, that I hope my qualification of barrister-at-law may be of especial service to my fellow practitioners; and as I now am, and have been for over 15 years, engaged in general medical practice, I trust that the profession will recognise that it would be to their interest to avail themselves of the services which I now place at their disposal.

I am, yours faithfully,

CHARLES W. HAYWARD, Barrister-at-Law, M.D. Edin.,  
D.P.H. Cantab., M.R.C.S. Eng., L.R.C.P. Lond.  
Liverpool, Oct. 27th, 1901.

MEETING AT BIRMINGHAM.

A large meeting of medical practitioners was held at Birmingham on Oct. 24th to hear an address from Mr. Victor Horsley, when about 120 attended at the invitation of the Birmingham and District General Practitioners' Union, a well-known and influential local organisation. The meeting was held in the large lecture theatre of the University, a fact which is evidence of a broad-minded spirit on the part of the authorities that might with advantage be imitated elsewhere. Mr. H. Langley Browne was in the chair and briefly introduced Mr. Horsley.

Mr. HORSLEY said that while there were many points requiring reform in the profession the outlook was brighter than when he joined the General Medical Council four years ago. Speaking of the question of contract practice, he earnestly warned the profession in any question of negotiations with the clubs to enter upon them only after the conditions had been defined. One such condition must be that of "wage-limit." The attitude of the General Medical Council was, he thought, very satisfactory on the question of contract work and medical aid societies. He desired as an example of this to allude to the Irvine case. By no means so satisfactory, however, as was shown in that case, was the attitude of the public towards the profession. No other learned profession nor either of the services would have been treated with the same indignity as the medical profession when the case of Dr. Irvine was mentioned in the House of Commons. That the Right Hon. J. Chamberlain should have insulted the profession by referring to their "trades-union" rules might be attributed to ignorance and faulty information, but that the medical Members of the House should not have made a better case was indeed surprising. The General Medical Council, in condemning Dr. Irvine, had in mind the flagrant advertising that was adopted by the Consultative Institute, and the medical profession had always exercised discipline in its own ranks, a thing he believed a trades-union never had done. Singular to relate, Sir W. Foster was the only medical Member to rise in the House when the honour of the profession was dragged in the dust, and even he did not explain the reason why Dr. Irvine was condemned for

"infamous conduct," but allowed the House of Commons to remain under the impression that the charge of infamous conduct was brought against Dr. Irvine simply on account of the lowness of his fee. No other medical man defended the honour of the profession and Sir Michael Foster even voted in the majority in support of Mr. Chamberlain. But what revealed the political impotence of the profession in the most striking light was the confession that Sir John Gorst was obliged to make, that although the General Medical Council was practically a department of the Privy Council, neither he nor the Duke of Devonshire had time to read the minutes. That, indeed, was "infamous conduct." But not only was the General Medical Council hindered in its work from above, it was also troubled from below. Recently the Colleges of Physicians and Surgeons, bodies with an ancient history but whose *raison d'être* had now disappeared and which were in financial low water, had disputed the ruling of the General Medical Council. They must be forced to give way. Mr. Horsley then referred to the question of reciprocity with Italy, and showed that in this matter also the Privy Council had entirely neglected the advice of the General Medical Council. The remedy for all these grievances was a new Medical Act, but he feared that the time for passing this was not yet. Meanwhile let medical men organise themselves into such bodies as the Birmingham and District General Practitioners' Union, and especially let them support the reconstitution of the great British Medical Association and their interests would no longer be neglected.

#### MEETING AT NEWCASTLE.

A meeting was held on Oct. 26th in the Library of the College of Medicine, Newcastle-on-Tyne, under the auspices of the various local medical associations, for the purpose of hearing the candidates for the forthcoming election to the General Medical Council. The summonses for this general meeting of the medical profession of the district round Newcastle were sent out by Dr. A. Cox of Gateshead and the various local medical associations must be congratulated on the results of his labour, for the number of medical men attending the meeting was about 100.

Mr. RUTHERFORD MORISON having taken the chair called on Dr. Cox to read some letters which had been sent to him.

Dr. Cox said that he had a letter from Dr. Glover who was the only one of the candidates who had not been able to attend. The letter was dated Oct. 19th and said that Dr. Glover was sure it would be understood that it was a great disappointment to him to decline all public meetings, as it was always a pleasure to him to meet his constituents even when they met to debate difficult questions. The letter concluded with a particular request to Dr. Cox to make the unavoidable reason of his absence clear to the meeting. Dr. Cox said he had also had a post-card in which Dr. Glover was very anxious to impress on his constituents that nothing but sheer necessity prevented him from attending. After Dr. Cox had read the names of several medical men who regretted their inability to attend he proceeded to say that Dr. Charles Hayward of Liverpool had allowed himself to be nominated as a candidate for the General Medical Council, but that the committee had not known of his intention in time or an invitation would of course have been sent to him to speak at that meeting.

Mr. MORISON said that he need not tell them what that gathering was for. It was to hear the views of those whom they hoped were going to represent them in the General Medical Council. Some of them remembered that the very name "medical politics" used to stink, but at the present day they had come to recognise that the subject was of great importance. They saw that without combination any body of men were absolutely helpless in this present age. Unless there was some combination there was no one voice speaking for the medical profession. Being without combination the medical profession had gradually got to be heard less and less, and its opinions had come to have less and less importance. They had, however, roused themselves to this fact, and they welcomed those gentlemen who had come there to tell them what they could on medical matters. In addition to the services medical men owed to the public they had duties to themselves as a combined body and to themselves individually. Owing to the courage and the ability with which Mr. Horsley had taken part in the debates of the General Medical Council they had arrived at the definite conclusion that changes in the General Medical Council were

very much wanted and that there were many things in its composition which would be better for being revolutionised. Mr. Horsley had taken a very active part in the work of the Council and they hoped for great things from him in the future. He would first ask Dr. S. Woodcock of Manchester to address the meeting.

Dr. S. WOODCOCK (Manchester) said it was a great pleasure to him to meet so many medical men in the north. He thought that they were beginning to regard the General Medical Council as a sort of medical parliament and to take an interest in the election of the Direct Representatives. Unfortunately there was no doubt that there was considerable apathy in the profession generally concerning medical politics and he was delighted to see so many medical men assembled there in Newcastle, especially on a Saturday afternoon. In Manchester a Saturday afternoon would have been the very worst time on which they could have hoped to get together a large meeting, for in that district they were somewhat strict Sabbatarians, and they got as much work done on the Saturday as possible so as to relieve themselves on Sunday. Dr. Woodcock, continuing, said that his view with regard to the General Medical Council was that it was lacking in the qualifications which he thought a Council affecting to provide for the interests of the public and the profession ought to have. Its constitution was, in the first place, such as to make it unlikely that it would take any very great action on its own part for reform. It was a sort of compromise which was effected because the medical corporations could not agree among themselves. He remembered that the Apothecaries' Society was not anxious for any reform which would deprive them of any of the monopolies that they enjoyed, and that was also the case with the Royal College of Surgeons of England; the Royal College of Physicians of London was jealous of the rising influence of the London University. In consequence a body was formed which was representative, in the first place, only of the medical corporation and their representatives were men not elected by the graduates or diplomates of those bodies, but by small coteries, the result being that they constituted a Council which was in no sense a representative body. Some years after the constitution of the General Medical Council they procured an amendment of the Medical Act which gave the profession a very few Direct Representatives which was a miserably inadequate concession to the demands of the profession. He, however, did not hope for very much reform from the General Medical Council; he did not anticipate that it would do much to encourage reform until the Council had been reformed itself. In the first place the Council should make a recommendation to the Privy Council that the number of the Direct Representatives should be increased as far as possible. While doing that it should be suggested that they should have a topographical arrangement for the election of the Direct Representatives. It was bad enough for those men living in the North of England as he was described as doing to have to travel 150 miles to meet his friends in Newcastle, but the candidates from London had to travel double that distance, and Mr. Jackson from Plymouth three times as far. If medical men were to be induced to take part in the elections of the representatives they should be afforded a fair opportunity of seeing and hearing those gentlemen who aspired to represent them in the General Medical Council. If he (Dr. Woodcock) was only obliged to appeal to those medical men resident in the north—as, for instance, those in York, Leeds, and Bradford—it would be possible for him to make their acquaintance and personally to make his views known to the men in those thriving places. Dr. Woodcock then proceeded to point out that there appeared to be a disposition on the part of one or two Royal Colleges to be in dispute with the General Medical Council with regard to the question of the preliminary examination. He thought it was a point of the utmost importance, though he was uncertain himself whether the General Medical Council had much influence over preliminary examinations. He considered that they should see to it that those who were entering the medical profession should have a good sound education, as he believed that the want of such preliminary training was to some extent the reason why the profession was not held by the general public in such respect as perhaps it ought to be. At the last Council meeting of the British Medical Association they passed a series of resolutions concerning this question of preliminary education and he would like to read them to the meeting and to say that they represented

very accurately and very faithfully his judgment on this matter. The resolutions were proposed by Dr. P. Maury Deas of Exeter and were seconded by Dr. E. L. Fox of Plymouth. The first was that it was undesirable that anyone should be registered as a medical student until he or she had attained the age of 17 years. The next was that the standard of the examination in preliminary general education required by the General Medical Council should be suitable to candidates of 17 years of age of average intelligence and reasonable industry. The third was that the present system of multiple examining boards was most undesirable and that it was necessary in order to secure uniformity of standard that a single examining board should be appointed by the General Medical Council and that this board should hold its examinations as often as necessary at multiple centres simultaneously. The fourth was that the examination should include at least Latin, mathematics, English grammar, literature and essay writing, history, geography, and either French or German. The last was that a committee of the Council be appointed to consider the whole subject of preliminary general education and the best means of promoting the carrying into effect of the foregoing recommendations, and to report. He thought that those were most desirable resolutions and it was greatly in the interests of the public that they should be passed. They saw that they were in some respects fighting for the very reforms which the early medical reformers were fighting for more than half a century ago. There was the necessity of having a one-portal system, for they had about 20 qualifying bodies. There was the necessity of having an amendment of the Medical Acts under which they could punish a man for practising without being registered. At the present day they found men practising with impunity unless they assumed medical titles. The General Medical Council had no control over unlicensed people. The General Medical Council had practically abolished the unqualified assistant and they did it by getting at his principal. They said, We shall punish you if you employ an unqualified man. It so happened that a man had an unqualified assistant who was a very sharp fellow and when the decision of the General Medical Council was issued the assistant was asked what he was going to do. "Oh," he said, "I am going to continue practising; I shall not call myself a surgeon but I shall practise all the same." That man was still practising, and such a thing was quite possible under the Act as it now existed. A surgeon was prosecuted for a criminal offence and was imprisoned for 12 months. When that man came out of prison he put his name up and practised with such a success that might excite envy, for he left £50,000 to a university. That was, he thought, an illustration of the fact that the present law only took cognisance of the assumption of medical titles and in reference to that he was speaking to a Member of the House of Commons one day when he was up in town on another question in connexion with medical reform. He was talking to this Member about the prescribing druggist and he was told that it was not possible to touch him because one half of the Members of the House of Commons would not hesitate to go into a druggist's to have a pick-me-up as they went along. They would see that that was one of the difficulties under which they laboured. The time, however, was ready for some reform to be effected and it would be no less in the interest of the general public than in the interest of the profession. He (Dr. Woodcock) thought they ought to hold on like grim death to the five years' curriculum and he thought that five years was quite short enough time for any young fellow with a good preliminary education to lay hold of the knowledge which was necessary to embark him in the world as a practitioner of medicine. Now there was a question which perhaps excited a good deal of interest lately—that was the question of medical aid associations, and they had rather a striking illustration of the ability of the consultants to deal effectually with a man when he trod on their corns. He referred to the case of Dr. Irvine at Birmingham who was connected with a sort of medical aid association and who began practice as a consultant of that association. He had never seen such a fluttering among the pigeons as there was in that affair, but he would remind them that the very same sort of thing had been going on, though with men of smaller calibre. When brought before the General Medical Council they made short work of Dr. Irvine, but the issue of that affair revealed that the General Medical Council did not stand high in its relations with the Government, for in the debate in Parlia-

ment on the appointment of Dr. Irvine as one of His Majesty's inspectors of schools Sir John Gorst, representing the Government in the House of Commons, said with a sort of scorn that he did not read the minutes of the General Medical Council and was not acquainted with what went on in the General Medical Council. Neither his noble friend, the Lord President of the Council, nor he himself had sufficient leisure to acquaint themselves with the proceedings of the General Medical Council. And that body, continued Dr. Woodcock, was supposed to be the one which was charged with the responsibility of advising the Government in regard to medical matters. It revealed the fact that the General Medical Council was a subordinate body which was under the control of the Privy Council. It only required two members of the Privy Council to veto any action of the General Medical Council. He did not know what could be done; he had no hope except by a general rising of the medical profession as one man against that sort of thing. They often wondered how it was that their forefathers were able to stand the condition of things before the reform of Parliament, but they had now at the present day an enormous constituency of educated men with many of them contented to remain under the conditions which he had described. He remembered a president of one of the Royal Colleges saying at a meeting of the British Medical Association when there was an agitation going on for reform that he did not think that any reform of the Medical Act of 1886 was wanted—it was a very perfect Act and there was nothing more to be desired. In fact, he considered that they were in the best of all possible worlds and under the best possible conditions. But the individual opinion of that particular person did not apply, for they had reason to complain that after all the money they had spent and the time and energy they had expended in equipping themselves to become registered practitioners they should get no further protection from the State than that of their title. In regard to medical aid associations he knew that the General Medical Council had no thought of power to issue an edict prohibiting men from accepting situations under these medical aid associations, but they had one power, and he believed they would exercise that power, and he thought he could trust the General Medical Council as long as Mr. Horsley was there to exercise it, and that was that if local organisations could get up a concrete case and give proof that any man had been acting for a medical aid association which touted and advertised then he believed that man could be dealt with by the General Medical Council. It was a shame that they had to do things in that way, but he believed that it was only in that way that it would have to be accomplished. Coming next to the question of the wage-limit Dr. Woodcock said that Dr. Glover seemed to be enamoured of what he called a conciliation board. Personally he did not mind a representative of the medical profession going on to a conciliation board to meet men who would meet their representatives in a conciliatory spirit. They had lately had some curious experiences in regard to this conciliation board. Dr. A. Cox was on a committee of the British Medical Association which met the representatives of the friendly societies, to whom it was said that in the first place it was necessary to have a wage-limit. But this demand was definitely refused and the friendly societies said, "We will not have a wage-limit." It appeared that

"The good old rule  
Sufficeth them, the simple plan,—  
That they should take who have the power,  
And they should keep who can."

What was the good, Dr. Woodcock asked, of the medical profession being represented on a conciliation board with men who were so entirely unconciliatory? Such a course of action would be simply giving the profession away until the representatives of the friendly societies came into a more reasonable spirit. In connexion with the wage-limit he recounted how a man came to him in Manchester last week who boasted of being a wealthy man and said that he only came to Dr. Woodcock when he was seriously ill, as a general rule going to his club doctor. On being expostulated with and told that being a man of wealth he ought not to take advantage of a club, he replied that that was all nonsense: he paid his money to the club and he ought to have something for it. Dr. Woodcock said he only mentioned that incident in order to illustrate to them that it was necessary that they should have some distinct understanding in

regard to the wage-limit. He would just say in passing with regard to the finances of the General Medical Council that Mr. Horsley had revealed that these were not in a very satisfactory condition. The branches of the Council had been living on the capital, and the Irish Branch Council had been going beyond that and had followed the advice of Artemus Ward, "Live within your income even if you borrow money to do it with." That was not a very satisfactory condition of affairs, and if the General Medical Council was to be a potent instrument strong enough to effect the purposes for which it had been constituted then it should have sufficient money. He could not escape, after serious thought, from the conviction he had that it would be a good thing for the medical profession if they had to subscribe an annual fee. If that were done the money would be provided and, reckoned at £1 a year for each medical man, would amount to about £35,000. Anyhow, that or some similar sum would have to be provided and it was certainly most unsatisfactory that the General Medical Council should be allowed to have its affairs get into a financial muddle. He thought that the penal powers of the General Medical Council ought to be modified: they had no punishment but a capital one, they could do nothing with a man but cut him off the Register. There might be conditions under which a man might be suspended so that he might be under observation as regards his conduct or he might be called upon to get some one to stand surety for him. He considered that there ought to be a little more elasticity about the law in regard to the punishment of men for infamous conduct in a professional respect. It would be desirable to have the penal powers of the Council so modified as to enable them to deal with some measure of justice with men proved guilty of the less serious professional offences. He was heartily tired of the midwives question, for after years of work they were still going on in the profession with a sort of internecine war. The battle went on week after week in the press. There were men on the one side who said that you should do this and there were men on the other side who said that you should not. He thought, after all, they would be obliged to look facts in the face. His position was this—that if they could secure a system whereby midwifery nurses could be registered, their functions limited in a decided and distinct manner, so that they could be punished for any encroachment, and if they had nursing duties imposed on them, and were placed under medical control as far as possible, he thought they should have come to something which could be accepted as an instalment. It would be tentative—all Acts of Parliament were tentative; but if they had to wait for something perfect it might perhaps come in his time or it might not. He was not in favour of registering midwives as independent practitioners. He believed that it was possible that a system of medical control could be arranged to prevent that and he would like such a scheme to be arranged for the satisfaction of everyone. It was a very difficult question. There were a great many men who were opposed to them, not from sordid reasons, but because they honestly thought that the alternative plan was in the interests of the community. He gave them credit for thinking uprightly on the question, but the time had come when they themselves should form a conciliation board and by means of that arrive at a practical solution. Burke said that compromise was not seldom the wisest course in politics, and nearly all the Acts of Parliament under which they lived and by which they were governed were the results of compromise. This internecine warfare over the midwives stirred up bad blood and created ill-will, for there was always a short way with those who dissented which was somewhat a peremptory one, for it was no argument to say, "Damn you, sir, I do not agree with you." He sincerely hoped that something would be done which would satisfactorily deal with the matter. By the raling of the chairman each speaker was limited to 20 minutes, but Dr. Woodcock said if he might be permitted one word more he would like to say one or two things which were not altogether impersonal. They did not know there in Newcastle, and he wanted to tell them, that he did not want himself to go on to the General Medical Council because of the honour which it would confer on him. He had had more honours conferred on him by his medical brethren than he deserved. He had been President of the Clinical Society in Manchester, President of the Medico-Ethical Society, and President of the Lancashire and Cheshire Branch of the British Medical Association. He was a Member of the Council of

the British Medical Association, and he was Chairman of the Parliamentary Bills Committee, and for years he had been engaged with Mr. Horsley in attempting to secure medical reform by working on sub-committees under the auspices of the British Medical Association. He had been lately assisting in the attempt to reform the constitution of that Association and he hoped that if that were effected they would find the Association to be an instrument through which they would exert pressure and operate not only on Parliament but also on the country at large. The time would soon come when they would find that those of them who were charged with the safeguarding of the health of the community would have some right for consideration at the hands of the community for whom and in whose service they spent their lives.

Mr. GEORGE JACKSON (Plymouth) said he was pleased to come there to express his views on those questions that were likely to arise in connexion with the General Medical Council. It was especially gratifying to him to see so many present at that meeting and it rather contrasted with the numbers at other meetings that he had attended. It looked as if the men at Newcastle took an interest in medical politics and that was a good sign because one of the great difficulties they had to contend with was the apathy of the medical profession. He believed that on the last occasion of the election to the General Medical Council only about one-third of the medical men voted on the question as to who should represent them in the Council. If people would not take any care of their own affairs they could not expect Jupiter to help them. It was quite certain that Parliament would not listen to representation unless there was a strong body of opinion expressed by the profession in a certain direction. He would like to refer to his address. In the first place, there was the reform of the Medical Acts so as to provide for direct representation of the medical profession in every case except the Crown nominees. In order to reform the Medical Acts they would have to reform the General Medical Council itself, and of course, as they knew, the members who represented the corporations were in such an overwhelming proportion and so outnumbered the Direct Representatives that nothing could be done as it should be done owing to the dead weight against them. He hoped that whoever were elected as Direct Representatives would act in unison, because that seemed to have been wanting during the last five years—in fact, there seemed to have been almost antagonism. To arrive at reform they must endeavour to secure more Direct Representatives on the Council. There were two ways in which that might be done: they might do it by reducing materially the representatives of the corporations, and he suggested that the corporations should be arranged in groups with a representative for each. In that way there would be an opportunity for increasing the numbers of the Direct Representatives, and in addition to that the members who represented the corporations should be directly elected by the members of those bodies. He took for instance the Royal College of Surgeons of England as it stood at the present time. It was a grievance that Members of the College had not the slightest voice in the College affairs and possessed no vote. He said that all the Members should have a right of voting because they were Members of the body corporate. The Members should have a right of voting for the representative of the College on the General Medical Council and the same was the case with the other corporate bodies. If they were reformed then other things would follow. In the second place he had said in his address that the standard of entrance examinations should be raised and the age of entrance limited so as not to be under 17 years. The resolutions which had been read by Dr. Woodcock as having been considered by the Council of the British Medical Association were first passed at a meeting of his own branch of the British Medical Association which was held in Devonshire. When Dr. W. Gordon of Exeter brought them forward he wanted to add the subjects of physics and chemistry, but the others thought that it would be better to leave these subjects to a later period. He did not think that the brain of a lad 16 years of age was capable of fully profiting by the proposed instruction. It had been, however, objected that at 16 years of age a boy could pass any of the examinations proposed. If there was a uniform examination such as was suggested any boy 14 years of age might pass it and then would waste his time till he was 17 years of age. Mr. Jackson, however, pointed out that in such a case a boy should be compelled to show evidence of having done work meanwhile,

as, for instance, at some technical school. The third point in his address was that the one-portal system of entrance should be secured by forming a board of examiners composed of delegates from the present examining bodies. It was important to have the one-portal entrance into the profession and one portal for the purely professional examination. It might be something in the constitution of English people, but they seemed rather to like to do things in an odd sort of way. They did not favour the idea of uniformity. In France and Germany they had one State examination which everyone had to pass. After passing that they could take any ornamental university degree that they pleased. In England the idea of freedom prevailed, but in the end they would have to come to the one-portal system. The General Medical Council was composed of such a number of representatives of corporations that it was not likely they would consent to the system, but it had occurred to him that it might be brought about by all the present bodies that examined sending delegates to a board of examiners so that everyone would have some finger in the pie, everyone would get some plunder out of the arrangement, and then the method of uniform examination might be instituted. Again, in any legislation for the reforming and alteration of the Medical Acts it was desirable that the Council should have power to suppress quacks who practised medicine and surgery under various forms of colourable pretence. Nothing could be done with the class of opticians and others under the present Act unless a man professed to be registered or called himself a surgeon or physician. The lawyers were much more careful of their own interests and if any man made a colourable pretence of being a lawyer or if a debt collector wrote a letter to anyone in the form of a legal document to collect a debt the lawyers were down on him and he soon found himself in a wrong position. In his opinion the General Medical Council should have a great deal more power in that direction. He considered that a more definite pronouncement should be made against medical men acting as medical advisers to clubs and insurance societies whose agents touted for members. The matter had become of late a very serious evil and Mr. Jackson described how the insurance companies tried to bribe people into joining. Their agents would say to a man that he could join as a sick member and could have a medical man of course, adding that he was a very good medical man. These agents also did not care how well off the people were who were to become members, the matter of the insurance was all that they cared about. At Plymouth they had attempted to cope with the evil; they had not appealed to the General Medical Council because there was no use in doing that, but they had applied to the Colleges which had licensed the medical men who were acting as medical advisers to these insurance societies. They found that the Irish Colleges were willing to take cases up and would write to the medical men to say that if they continued in that sort of action their diploma would be withdrawn. Mr. Jackson then came to the point that the General Medical Council ought to have supreme power in matters of general education. There was a sort of deadlock between the Royal Colleges of Physicians of London and Surgeons of England and the General Medical Council in regard to the five years' curriculum. The Royal Colleges were losing their candidates for their diploma, so they said, that the candidates might attend the first of the five years' curriculum at one of the higher grade board schools or technical schools. The General Medical Council said that the five years should be spent in a medical school, but they had no power to say to the Colleges that they must do as they told them. The Colleges could defy them, but in a new Act a clause should be put in giving the Council powers. He then came to what he had referred to as the burning question of the time—the midwives question. He thought Dr. Woodcock had said in a former speech that they had always had the midwives; but they had always had many people who were not desirable, and he thought if they could they ought to try to extinguish the midwives. Why should they always have these Sarah Gamps? Every medical man knew what an extreme danger they were, what an enormous number of deaths they caused, and every now and again they saw reports of the carelessness of these women. England was a free country, but it was going too far to allow these people to endanger the lives of those who were most important to the country. The population of England was not increasing as it ought to, and it was necessary that the mothers of the country should not incur these dangers. He thought they ought to try to extinguish

these Sarah Gamps altogether. He thought he was right in saying that the Bills which had been introduced into Parliament had laid down that any woman who had been in practice as a midwife for two years should be entitled to be placed on the Register. He protested against this right being given to any dirty woman who happened to be a midwife, and contrasted the proposed law with the provisions of the Medical Act on the construction of the Medical Register. He thought that the striking out of the clause might be a little hard on some of these women, but if they registered them they would at once assume other duties of a more important character. He thought it was very desirable that the question should be settled, and if it were possible a Bill should be introduced into Parliament to register all nurses who had had a sufficient training, that is to say, a three years' training, and the nurses who took midwifery cases should be under the control of medical men. For many years the Government had insisted on the guardians of the poor providing medical assistance, but they did not insist on their providing nurses except in the case of workhouses and infirmaries. It was a sad thing to treat midwifery cases in the homes of the poor nothing was done that should be done, there was no cleanliness, and he thought it was very desirable, if nurses were provided, to see that treatment was properly carried out under the immediate control of medical officers. He had been told at a meeting at Liverpool that that course was followed at Saddleworth, but if the guardians did it they did it as an act of grace. He did not think it was possible for them to meet the promoters of the present Midwifery Bill because their views were so different. One of their views was that it would give more employment to women and that was one reason why they advocated that Midwives Bill. Another thing was that many people liked to be charitable at other people's expense and there were many ladies who liked to be philanthropic without cost to themselves at the expense of the medical profession. It was, of course, very easy to be philanthropic when it cost nothing. In regard to the clubs he was not a believer in the conciliation board that Dr. Glover thought would be of so much value. He found that it was the opinion of all medical men with whom he had spoken that the working man would not listen to the question of wage-limit. They would not entertain that point at all, so he could not see that it was any use entering into the matter with them. In those places where the working man would not make any concession the best plan for the medical man was to provide provident dispensaries run on proper lines. They had a small one in Plymouth run in that manner, the management of which was in the hands of the local branch of the Incorporated Medical Practitioners' Association. They had a wage-limit and the system worked well. If the management of a provident dispensary was in the hands of those who were doing the work, as, for instance, in the hands of the council of medical men of the local branch of the Incorporated Medical Practitioners' Association, he did not see that there could be anything which would go very wrong in the matter. If, however, the management were to get into the hands of a lay committee they would exploit the medical men. At Coventry there was a large dispensary to which half the population belonged and the staff would not do anything to endeavour to abate the evils in the system. He supposed they were afraid of losing their appointments and the committee would not submit to any inquiry as to the amount of wages earned. They said that they did not allow touting, but if a sick man wished to join it was possible for him to do so by getting two healthy persons to join with him, and Mr. Jackson explained how that was nothing else but touting. They had had two or three attempts at the meetings of the British Medical Association to have the matter dealt with, and the men concerned had been remonstrated with, but without avail. If the General Medical Council would pass a motion that it was infamous conduct in a professional respect to act in that manner it would be easy to deal with it. The men could then say that they could not do that sort of thing because the General Medical Council would strike them off the Register, and then the committee would have to give way and submit to a wage-limit. He (Mr. Jackson) was asked the night before at Liverpool to say how he would introduce a Bill into Parliament dealing with medical matters and his answer was, "Through the British Medical Association." The Association was in course of reconstruction and the system of delegation was going to be tried. The first meeting was to be at Manchester, and if the Bill was formulated by the Council of

the Association and thrashed out by the delegates there would be no difficulty in getting such a Bill into Parliament. The Bill would be the means of educating Members of Parliament in regards to medical matters and without that they would get nothing done because Members of Parliament did not care unless pressure was put upon them. What they said was that no one ever wrote to them about medical matters, and unless they all individually took the trouble to put pressure on the Members of Parliament the legislation they sought would not be secured. Mr. Jackson concluded by thanking the meeting for the kind way in which they had listened to his remarks.

Mr. GEORGE BROWN (London) said that before leaving town for the north-west to meet his constituents he took the advice of a well-known and most enthusiastic medical reformer as to the line which he should take in addressing those among the medical practitioners who did him the honour of coming to hear from him an account of his stewardship. His friend said that he did not think he could give him better advice than as follows: "When you go north tell them what you promised to do if elected and then go on to state how far you had endeavoured to carry out those promises, and, thirdly, as to what you should aim at in the future if it met with the pleasure of your constituents to re-elect you to go back to the General Medical Council." He thought that was very sound and proper advice, and he would have followed it most closely were it not that during the preliminary stages of the contest he had been met with some attacks of a personal character, and he felt from what had taken place at Liverpool that it was only right that he should address them on some of the personal points connected with his position in the General Medical Council. He had not expected to have to do this, but when he was attacked—and attacked unjustly—he thought that it was his bounden duty to reply to any attacks of that kind. The attacks he referred to he need scarcely dilate upon to those who were present at the meeting at Cheltenham. They would remember that those who had announced themselves to be candidates for the next election to the General Medical Council were asked to address the members of the British Medical Association at a morning meeting upon the matters connected with the General Medical Council. It so happened, taking, he supposed, the candidates in alphabetical order, that he (Mr. Brown) was called upon to be the first speaker. He said, then, that he would avoid personalities and he carried out his promise, but Dr. Glover who followed him made an onslaught on him which took him very much by surprise. However, the exigencies of the meeting did not admit of the chairman allowing him an opportunity of giving an explanation of the charges brought against him and therefore he reserved his remarks on them until he came on some public platform so that he could repudiate those charges concerning his conduct. As an old friend of his he had loyally supported Dr. Glover on many occasions and he was exceedingly sorry that he had not an opportunity of meeting him there on that occasion to refute those charges. Those of his audience who had read the medical journals might perhaps remember that the charges were of such a grave character that one of his strong supporters at the last election, now resident in Liverpool, stated that if the charges were true Mr. George Brown was no longer a fit and proper person to represent the profession on the General Medical Council. It was those charges that he would ask the indulgence of the meeting to discuss, and when he had met them he felt sure they would acquit him of everything like dereliction of duty in regard to the matter. He must remind them of what occurred at the Cheltenham meeting by reading from the report to them. Referring to the Midwives Bill and the granting of the so-called diplomas to midwives, Dr. Glover said, according to THE LANCET—a journal with which Dr. Glover had been connected for many years, and he (Mr. Brown) thought they might consider it a true report—Dr. Glover said: "Some gentlemen think that we should punish the leaders of the Obstetrical Society of London, and we have only one punishment and it a capital one, that we should remove their names from the Medical Register. Does any gentleman think that the most advanced medical reformer—Mr. Brown himself say—would venture to rise seriously and make a definite proposition to that effect in the General Medical Council? To do Mr. Brown justice I must say he has had the chance of doing this any time in the last five years and he has not

done it." That charge almost took his breath away because he had a sort of dim recollection of having done it, although Dr. Glover appeared to have forgotten it, and in that matter he thought Dr. Glover's memory must have failed him entirely. He did not think Dr. Glover would have knowingly made such a grave charge as that and he must have forgotten a circumstance which occurred on Nov. 29th, 1899, 18 months before he made this charge, and which was also reported in THE LANCET. The report stated that:—

The first business on the agenda was the following notice of motion by Mr. Brown—namely: 1. That notwithstanding the resolution of the Executive Committee passed on May 27th, 1895, the Registrar be instructed to inform the President of the Obstetrical Society of London that the Council can no longer assent to the holding of examinations in midwifery or to the granting of certificates of proficiency in the practice of that art by any body of persons unless invested with legal authority to hold examinations and grant certificates in this branch of medicine. 2. That the Registrar be instructed to insert notices in the leading medical journals to the effect that on and after the first day of January next any registered practitioner who takes part in any examination in the art and practice of midwifery or any other branch of medicine or surgery held by or on behalf of any society or person or body of persons, unless legally authorised to hold such examinations and grant certificates of proficiency to successful candidates, will be liable to be adjudged guilty of infamous conduct in a professional respect and to have his or her name removed from the Medical Register.

What became, then, of Dr. Glover's charge in the face of that—that he (Mr. Brown) had never taken any steps whatever to induce the Council to regard those actions as infamous conduct in a professional respect? He considered that what he had read was a sufficient answer to the charge. He might say that he was supported on that occasion by his colleague, Mr. Victor Horsley, who made a strong speech in seconding those motions of his. He (Mr. Horsley) seconded them and further stated, though he did not know whether Mr. Horsley remembered it, that "they must all have the utmost sympathy with the society in instituting this examination in the first instance, but while that was so they could not but feel that they were mistaken in issuing the certificate of any kind which, as the resolution of the Council said, was a colourable imitation of a diploma. He submitted that the present certificate contravened the spirit of the Medical Acts and was calculated to deceive the public." Dr. Glover in his speech, which Mr. Brown said was of course against the motions, asked if he (Mr. Brown) would strike off from the Register Sir John Williams, Dr. Champneys, and Dr. Cullingworth for issuing these certificates. Mr. Brown said he certainly would, and he would treat Sir John Williams and any others, high as they might be in the medical profession, the same as he would the latest addition to the medical profession if he should do an illegal act contrary to the letter and also to the spirit of the Medical Act which they lived under, and if he should continue to do it after he had been warned he would deserve to be struck off the Register. He (Mr. Brown) thought that it was a position that every medical man who had his profession at heart would agree to. The next charge, Mr. Brown said, that Dr. Glover had brought against him was more serious because it affected a question which touched them more closely, and that was in regard to the motion which he brought forward concerning the medical aid associations whose agents canvassed from house to house for patients. He had received in regard to the midwives question many communications but he had received a far greater number regarding the sweating of the profession by the medical aid societies, in the proportion of three or four to one. The charge which Dr. Glover brought against him was practically that he brought forward before the General Medical Council matters upon which he could not get a seconder—matters which laid him open to ridicule, as if the members of the Council said, "Oh, Brown again, Brown again," and then dismissed the affair. It was true that he (Mr. Brown) brought forward a motion referring to the medical aid associations concerning which Dr. Glover said at Cheltenham: "Mr. Brown tried to counsel the Council to do something more drastic and did not get a seconder." Mr. Brown said that he had been in correspondence with many local medical societies in various parts of the country, including the district of Newcastle, and he had been urged to lose no time in bringing that matter before the General Medical Council. The Middlesbrough Medical Society were memorialising the Council that it was felt that the holding of appointments under such medical aid societies as were referred to was derogatory to the profession, and if the Council did not discountenance the practice it would

very seriously affect medical men who had resigned appointments connected with such societies. Mr. Brown accordingly proposed at the meeting of the General Medical Council on June 11th, 1901, that

Notices be published by advertisement and otherwise to the effect that association with medical aid societies and clubs which systematically canvass for patients will be regarded by the Council as infamous conduct in a professional respect, rendering any practitioner proved to be guilty thereof liable to have his name removed from the Medical Register.

Mr. Brown said that any person with common sense would recognise that in an administrative body of 31 members all sitting there sent as representatives to represent such a learned profession as medicine, to maintain its honour and dignity, that out of those 31 members if one of them proposed a motion which he thought was conducive to the best interests of the profession and could not out of that body get a seconder, that man must be a crank and that he must be doing something not to the interests of the profession. He (Mr. Brown) had proposed that motion in fulfilment of a mandate from his constituents. It was a motion that had been discussed in London by the Council of a recognised institution and he had brought it to the General Medical Council and he had hoped that out of that body there would have been someone who would have supported him in saying that that was a desirable motion to carry. He was not ashamed of the fact that he could not get a seconder, he could only say that he was sorry he was unable to do so. He believed that the time would come when that motion would be proposed at the General Medical Council and would meet with a seconder, and he also believed that that motion would be carried. That motion, however, would not be carried if the medical profession left it only to Mr. George Brown and Mr. Jackson if they were elected, but it would have to be carried by the profession themselves putting their shoulders to the wheel and sending up memorials to the Council and giving them to understand that they were seriously intent on the matter. He trusted that they would agree with him that that motion must be brought forward again, and he hoped that it would meet with a seconder and supporters. He was confident that it would not be thrown up to him by his colleagues again that he proposed motions which he could not get a seconder for and thus brought direct representation into contempt. As long as they instructed him to do those things he would do them. He had no personal interest in medical aid societies because he had not had anything to do with clubs for more than 20 years. He was one of those who did not believe in conciliation boards in any matter between a medical man and his patient. Such boards were a delusion and a snare and would only land them in disgrace and difficulty. They could only settle that matter by working in unison; by being true to one another they could carry out their club practice and contract work without any assistance from any Conciliation Board of the General Medical Council or any other body. As to what he (Mr. Brown) had promised last election it would not be necessary to dilate upon it because most of those present belonged to that district and were ardent reformers—at least, they were more ardent than those in other parts; at any rate, he got more letters from the north which were of assistance to him than from elsewhere. The position was one of extreme difficulty; the Direct Representatives only numbered five out of 31, and all that they could do was to keep pegging away. The points that he alluded to in his address at the last election were about five in number. One was that he would do what he could to reform the Medical Acts. They had not been able to carry a Medical Reform Bill, but that he hoped would come. It had been impossible to get the General Medical Council to take any action in that matter. It must be done by a great organisation such as the British Medical Association, and it must be put before the House of Commons and well supported and then they would have a Medical Reform Bill. But he was afraid that they would not get all they required; he did not think that the Government would give them such stringent powers as they would like to have in order to stop unqualified practice, or such powers as the public ought to give the Council for their own protection. They had stopped the practice of the unqualified assistant, and in his experience of 30 years as a reformer he had found that the mill for turning out unqualified practitioners was the use of unqualified assistants by practitioners. When an unqualified assistant was discharged he, having so many patients who knew him in the villages and towns about, felt that he could practise on his own account and so developed

into an unqualified practitioner, and that is how they had been manufactured by the score all over the country. By preventing the use of the unqualified assistant in visiting, &c., the Council had done a great deal to stop unqualified practice. In regard to preventing sick clubs and dispensaries from canvassing he had told them how he had been supported, and he could only regret that he could not report any good results except a pious resolution which had not done much. His friend, Dr. Woodcock, had just stated that if local practitioners would get up a case and present it to the Council and prove it the Council would take drastic measures as they did in the Irvine case. But he (Mr. Brown) did not think that it was at all a proper thing to ask medical men who paid a registration fee to the Council to be asked to take such a course. It was not right to ask medical men to go round making up cases against their local brethren after the manner of a detective. It was the duty of the Council to issue such regulations that that evil from which medical men suffered should be put a stop to without forcing them to adopt such a course as had been suggested. If the object could be gained by the issuing of an order from the General Medical Council that these appointments must not be held by medical men the whole business would be settled. They had just been told in regard to the Midwives Bill that they must come to a compromise, that they must give away something. He (Mr. Brown) did not believe in compromises: the thing was right or it was wrong. If it was right that these midwives should be registered as practitioners of midwifery they must let them be registered as practitioners, for midwifery was a branch of medicine and was within the four corners of their Bill of 1886. He said that it was their duty to themselves, to their profession, and to those who followed them to retain that charter unbroken. Why should they cut off the practice of midwifery and say that the midwives might practise that branch of medicine? Dr. Woodcock said that they should do it because midwives existed, but bone-setters and herbalists existed and counter-prescribers also. We should have no persons registered who were not properly educated to practise the whole range of medicine as well as any branch thereof. It was no unreasonable thing to ask the House of Commons to maintain the Act of 1886 intact. Referring to the question of geographical representation Mr. Brown pointed out that at the last general election Mr. Jackson was a candidate in the south, Dr. Rentoul in Liverpool, and he himself in London. He and Dr. Rentoul were honoured by being returned. Mr. Jackson was not, but received over 4000 votes. The principle of geographical representation was thus recognised at that time. It came with bad grace from Manchester to say that they were not represented topographically because the Lancashire and Cheshire Branch met when Dr. Rentoul of Liverpool resigned his seat and selected another member of their branch as their nominee to succeed him—viz., Mr. Horsley, although resident in London. He was glad that Mr. Horsley was selected because he had been a tower of strength to them. The only thing he would have liked to have further was for Mr. Horsley to be a general practitioner and if he were one they could not possibly have a better representative. Before leaving the question of topographical representation he would say that when Dr. Rentoul resigned he (Mr. Brown) felt sure that no one in the south would have stood in the way of Dr. Woodcock's election had he been selected by his branch instead of Mr. Horsley. Now when there were only two seats vacant it was not treating the present representatives fairly to put forward the principle of topographical representation. He had fought for them for 15 years and it was not fair after that to be told that he ought not to sit in the Council because he lived in London. They would have candidates from all parts of the country and medical men would exercise their judgment and elect those they thought most capable. Certainly if he thought it would serve their cause better to take a house and reside part of the year in Manchester, in Durham, or in some other part of England he would be very happy to do it, but he did not think that it would make any difference in the manner in which he would represent them. He was happy to have been able to answer the charges that had been made against him.

Mr. VICTOR HORSLEY said he appeared there under rather extraordinary circumstances, because when he was elected at a by-election he intended to present himself at the next general election (with the hope of re-election) for the

purpose of saving the profession the expense of another by-election; he was unable to do so since about a fortnight ago he discovered that it was legally impossible for him to resign and stand again. Therefore he was unable to resign his seat and he was unable to appear before them as he had hoped in the guise of a candidate. But for all that he trusted they would allow him to regard himself as though he were a candidate and to give them an account of his stewardship for the four years during which he had sat at the Council at their pleasure. He did not second Mr. Brown's motion for the reason that as regarded the General Medical Council it was *ultra vires*. The Council had no statutory power to do what Mr. Brown asked it to do, and therefore he secured no seconder. As regarded the principle of Mr. Brown's motion he would like to say that he was absolutely at one with Mr. Brown. He thought it was right that if the General Medical Council was going to make anything like a new departure in penal legislation, in which they had absolute power, they should signify the same to the profession by a resolution. But the Act of Parliament conferred on the Council no power to pass such motions: if passed they would be illegal, and he was not going to second any motion of which he was not quite satisfied in regard to its competency. During the last five years a change had occurred in the attitude of the Council towards their profession, and he saw that now in 1901 things were extremely different to what they were four years ago. The members of the General Medical Council had been chiefly reinforced, oddly enough, by young men and the ideas of the Council had become more progressive in consequence. At any rate, the general feeling of the Council was much more sympathetic towards the profession at large, and especially towards those in general practice, than it was when he first joined it. Mr. Horsley proceeded to sketch out the lines of improvement in the procedure and act of the Council. During the last four years they had completely reformed the legal work of the Council. The late solicitor had resigned after that very critical case known as the Hunter case. The solicitor having resigned they had fortunately obtained the services of the solicitor to the Royal Courts of Justice, Mr. Winterbotham, a gentleman who had shown already how deeply interested he was in their work and how anxious he was to follow out every point, so that they should never come near a recurrence of such an awful scandal as that of the Hunter case. For some years the finances of the Council had been in a hopelessly rotten state and for three years he had tried to obtain at least an inquiry into their financial condition and into the measures that were necessary to put them into a stable state. At last they had arrived at that point, but not without the most extraordinary misunderstandings on the part of Mr. Bryant the treasurer, and worse misstatements on behalf of the officials by their regular spokesman, Dr. MacAlister of Cambridge. All he (Mr. Horsley), could say was that in spite of every effort to hush up the truth concerning the financial position of the Council, efforts in which even the device of moving the Council into secrecy had been resorted to, a device which to his mind was absolutely incomprehensible on the part of a body of English gentlemen who had to deal with public money. It seemed to be rarely remembered that the only money the Council worked with was public money—that is to say, the money which practitioners paid on registration, from which moment such money became the property of the nation, and all accounts connected with it had to be laid on the table of the House of Commons and were not legal until they had laid there for the statutory period. He showed in 1898 that those account sheets which were laid before the House of Commons were false, but, as usual, the officials of the Council endeavoured to suppress him. Now, however, he had been fortified in his action by the report of the financial expert, Mr. Frere, whose advice had been sought. Now, at least, he hoped they would have another argument for altering the Medical Acts, because such alteration was absolutely essential if they were to reorganise the finances of the Council. The point was illustrative of the way in which the work of the Council had been done in the past and it was also illustrative of the fact that they could always hope to get reform in the future. Reference had been made by Dr. Woodcock to the most important question that had really affected the profession during the last 10 years, because for all that period the General Medical Council had been living in

a fool's paradise as regarded its real position towards the Government of the country. The Council was an intermediate body; it could not, of course, have any power over individuals of the kingdom, the members of the nation, it could not have any power over them of a kind which the central Government alone possessed. Therefore by the Medical Act the General Medical Council was placed under the Privy Council. As far as professional matters went the decisions of the General Medical Council were absolute, but when they came to matters of State policy the Privy Council intervened. For the last two years those of them who had followed the acts of the Privy Council in regard to the profession had seen with dismay that something was going on in the office of the Privy Council which was absolutely hostile to the general medical profession. Some influence was at work. Sir William Turner, the President of the Council, had repeatedly asked them to allow him to manage this or that piece of business by his personal intervention, and the Council had constantly placed such business in his hands for transaction by his personal action at the Privy Council. He had done his best, but what were the results? And they could only judge by results. He would take the midwives question as an example. The General Medical Council had laid down 10 points as absolutely essential in any Midwifery Bill. These were constructed during his services and those of Mr. Brown on the committee concerned, and he thought those 10 points were satisfactory, and that if they studied them they would see they absolutely safeguarded the interests of the public and the medical profession. Those 10 points were taken to the Privy Council Office. What was the result? The Duke of Devonshire, the President of the Privy Council, had on the most serious of those points gone back upon the Council, and that in spite of the fact that he had told a deputation of those who supported Lord Balfour's Bill that that deputation was to settle matters with the medical profession, and intimated that the General Medical Council was the mouthpiece of the profession. The system of negotiation thus only ended with the betrayal of the General Medical Council. Next, he would take the case of practice in Italy. Practice in Italy had been difficult in recent years, so their fellow-countrymen found out there, because the Italian Government wished to impose restrictions on them. They applied to the Government here to apply reciprocity. By the Act of 1886 the Privy Council could issue an order which became the law of the land that there shall be reciprocity between this country and a colony or a foreign country in regard to medical practice. The Privy Council, however, referred all the documents to the General Medical Council. On this the General Medical Council nearly had all its freedom and liberty of speech taken away from it by its Executive Committee who without the slightest authority wrote to the Foreign Office in favour of the proposal. That, however, they rectified at a subsequent session. First came the question whether it was in any way possible to institute reciprocity between England and Italy, and many of them showed in the Council that it was impossible. Some of them carried a motion which was to be embodied in the form of a letter to the Lord President of the Privy Council indicating the impossibility of this proposed reciprocity. This letter was actually before the Duke of Devonshire when suddenly an order in Council was issued that this reciprocity was to be established. So that the General Medical Council was wholly ignored, snubbed, and despised through this system of government by the Privy Council. Sir John Gorst, the Vice-President of the Privy Council, in referring to the case of Dr. Irvine before the General Medical Council, used these words in the House of Commons. He said concerning the appointment of Dr. Irvine as an inspector of schools that "at the time the appointment was made my noble friend the Lord President of the Council and myself had not heard of this charge against Dr. Irvine. (Opposition cries of 'Oh!') How could they have heard of it." Sir Walter Foster rose in his place, and he must have been surprised at the remark because he had been a member of the General Medical Council, and said, "You receive the minutes of the General Medical Council at the Privy Council." Sir John Gorst replied: "Neither my noble friend the Lord President of the Council nor myself have sufficient leisure to acquaint ourselves with the proceedings of the General Medical Council." He (Mr. Horsley) thought it was the most disgraceful transaction that ever occurred. He had said so at Birmingham, and it was duly reported in the *Times*. It was the most disgraceful

transaction that they could conceive of. Here was this Privy Council that had been communicating with them for so many years, and yet both the President and Vice-President of the Privy Council denied that they knew anything at all of the matter on which they had issued orders, &c. What, then, became of the letters sent to the Privy Council? what was the meaning of the letters received from the Privy Council signed by "Devonshire"? To his mind it was one vast farce from beginning to end. They were all agreed that there must be a new Medical Act. In the last four years they had driven home to the members of the General Medical Council the fact that there must be a new Act, but, as Dr. Woodcock had said, and he was glad to hear Mr. Jackson repeating that view, the only way was by remodelling the British Medical Association, by making that a truly representative body and having a representative meeting. So long as they brought together men from all parts of the country representing local practice and secured the support of that meeting in procuring a Medical Act Amendment Bill he knew that they would carry it in the House of Commons, provided they showed first the necessity for the reform of the General Medical Council and, secondly, that they had given a *quid pro quo* for the protection of their practice in the shape of enforcing the curriculum. Lastly, he wished to take the opportunity of repeating what had been said constantly elsewhere, that all these reforms that they wished to see carried out were presented to the judgment of the public as though they were designed solely for the benefit of the medical profession. That was a stupendous mistake. He would first get rid of the mistake that Mr. Chamberlain made in that same debate which he had referred to in the House of Commons where he alleged, quite under a misapprehension, that Dr. Irvine had infringed what he called a trade-union rule of the medical profession. Mr. Chamberlain asked, "Does the honourable gentleman say that to take lower fees than are usual is infamous conduct?" There was not a word in the debate from the beginning to the end of the true gist of the charge against Dr. Irvine—namely, the advertising and the touting which the General Medical Council held was infamous conduct in a professional respect. The public regarded the monetary relation of the medical profession purely in a commercial manner. They thought medical men wanted to sell in the clearest market and naturally they tried to buy in the cheapest and hence had arisen much misunderstanding. If they could only get the public to understand that the profession considered it a disgraceful thing for a professional man to undertake to attend an impossible number of patients—i.e., to undertake to treat these people honourably—then he thought the public would come into line with the medical profession. That was the way in which they ought to convince the public and the friendly societies that their motives were quite disinterested in that respect. In regard to the commercial side of the matter he thought they had a perfect position towards the public simply from this point of view, speaking now not of medical aid work but of ordinary contract practice, and that was that if the circumstances of the social life became more expensive of course it was reasonable that everything should rise in the same ratio. Next, in regard to the question of midwifery registration and legislation. The interest of the public demanded that the Sarah Camp should be got rid of. The public had no intention, so far as he could see, to get rid of midwives nor did he think it was possible to do such a thing as had been suggested. The true facts about the midwives had never been explained to the public. The public laboured under the impression that a midwife could practise *midwifery*, and that impression had been distinctly fostered by the action of the Obstetrical Society and some leading gynaecologists. He thought that such persons merited being struck off the Register for misleading the public and distinctly suggesting infringement of the Act of 1896. They had to tell the public that a midwife was not a fit person to practise midwifery and that if she did attempt to do such a thing she ought to be punished. It was for the protection of the public that the midwives should not be allowed to practise midwifery and that these women should be punished for doing anything in the way of an operation, and it was in the interests of the public that they should be when in work under the control of a medical man. Those points seemed to be steadily concealed from the Members of the House by those who advocated Lord Balfour's Bill. Unless the medical profession watched that matter very closely when that Bill was re-introduced the penalising clauses would be dropped out. He happened to

know as a matter of fact, curiously enough, that those same penalising clauses were probably the chief means of the Bill being withdrawn. Another important question, that of death certification, was so wrapped up with quackery and unqualified practice that it was a point upon which the public could not think that they were solely actuated by selfish motives. Even as regards quackery the action of the medical profession was in the interests of the public, for the loss to the profession was as nothing compared to the loss which the public suffered from the robbery of quacks. Death certification again was another instance of the General Medical Council attempting to manage public affairs simply by the intervention of the President. The President of the General Medical Council had had that matter in his hands on behalf of the Council the whole time he (Mr. Horsley) had sat on the Council, and they were not one whit nearer to reform in the matter. If they could bring about reform through the British Medical Association then they would have a ground-work for a real campaign against quackery. He looked upon that as a sort of side wind which would ultimately develop into a powerful gale. He could only conclude as he had begun by thanking them for electing him to the Council.

Dr. E. JERSON proposed a hearty vote of thanks to the gentlemen who had taken the trouble to come so far and speak to them on medico-political matters. He would like to include Dr. A. Cox also in the vote of thanks because he had worked very hard in arranging all the details. For the success of that meeting they were indebted to each one of those gentlemen, especially to those who had come so far—Mr. Jackson from Plymouth, Mr. Brown from London, Dr. Woodcock from Manchester, and Mr. Horsley from London. He wished on behalf of the medical men of the North of England to express gratitude to those who had come and spoken to them.

The vote of thanks was duly seconded and passed with acclamation.

Dr. JERSON having received permission from the meeting to bring forward a motion said that he thought it would be a good way of winding up the proceedings. The motion coincided in a great measure with what had fallen from Dr. Woodcock. The motion was to the effect that the time had arrived when steps should be taken to provide a new Medical Act, to make the General Medical Council more representative of the medical profession, to give greater powers to the Council, to enforce penalties against irregular and unqualified practitioners, and to institute a proper registration of this. He thought it was hardly necessary to point out that greater interest in medical matters had been aroused in the country and it behooved them to stir themselves up as regards reform. In England there were 20,000 medical men directly represented by three members on the Council; in Scotland there were 3000 medical men represented by one; and in Ireland there were 2000 medical men represented by one. If England were represented in proportion they ought to have six. With regard to the universities and corporations the representation for the universities was not in any sort of sense direct—in fact, it was very indirect; and when it was analysed it was found that perhaps half a dozen medical men only had anything to do with the election of a representative for a university on the General Medical Council. They had an instance of that in their own University of Durham. With reference to increasing the powers of the General Medical Council to deal especially with irregular and unqualified practice he pointed out that the properly registered practitioner was now in a more terrible position than a quack because he was well watched and looked after with jealous care, from all of which the quack was free. They should insist upon the proper registration of deaths because it was an important matter and there was greater laxity of the law in regard to it, and inquiry into the death registration would reveal circumstances which would astonish even the most unlearned in the land. He moved that the resolution should be forwarded to the Duke of Devonshire, to the General Medical Council, and to the local Members of Parliament.

Mr. MORISON suggested that the motion should read that the time had arrived when steps should be taken to provide a new Medical Act.

Dr. COX said that if that was the motion he would have much pleasure in seconding it.

Dr. J. F. ARMSTRONG asked what form the Act was going to take. They had had an interesting discussion and many valuable suggestions. But to his mind the motion as just read by Mr. Morison was a crude way of expressing their

wishes. He thought that the motion ought to include the further clauses which Dr. Jepson had suggested. He went into the subject of the registration of deaths in some detail and showed how it was impossible to avoid giving registration certificates without being paid for them and clearly showed that medical men should be paid a fee for certificates of death.

A speaker from the body of the hall moved that the subject should be adjourned. The words "a new Medical Act" were very vague and required considerable discussion. He therefore moved that the subject should be adjourned.

Dr. COX said he thought they were all unanimous that a new Medical Act was necessary and there would be time enough to go into all the details when the subject came before them. He thought that Dr. Jepson's motion as read out by Mr. MORISON was quite in harmony with the views of the meeting.

Mr. MORISON pointed out that the meeting was more representative of the medical profession in that neighbourhood than they would be likely to have for some time. He thought they were all agreed to the motion in the form that he had read it.

Dr. HILL said that if they wanted a new Medical Act they should state what they wanted in it. He would vote against any abstract motion of the kind suggested.

The motion was then put to the meeting by Mr. MORISON and passed with two dissentients.

The proceedings then terminated.

### PLAGUE IN LIVERPOOL.

FIVE or six cases of illness occurred in Liverpool at the end of September and the beginning of October which, while they were set down as influenza, were suspected of being plague. The patients were placed in strict isolation and two of them, two little boys, died. Dr. Bulstrode, medical inspector of the Local Government Board, went down to Liverpool to confer with Dr. E. W. Hope, the medical officer of health upon the situation, and official information has since been received from the Board that the deaths were due to bubonic plague. Dr. Hope submitted on Wednesday afternoon to a joint meeting of representatives of the Health Committee and the Port Sanitary and Hospitals Committee a report containing full information of the circumstances. From the report it would appear that on Oct. 23rd two children named Edward W., aged 12 years, and David W., aged seven years, living at Radcliffe-street, were admitted to hospital as suffering from typhus fever. The ambulance inspectors found on arriving at the house to remove the patients to hospital that one of them, David, was dying, but that another one, James W., was ill. Edward and James were removed to hospital. On Friday evening, Oct. 25th, doubt was raised as to the real nature of the illness of the two children in the hospital, and the medical officer examined the children with Dr. Balfour Stewart. The suspicious character of the illness led to further investigation in the locality whence the patient came, when it was ascertained that a young woman named Margaret K., aged 29 years, residing in Exmouth-street, the house which is in the immediate rear of the W.'s house, was ill. In the meantime reference to the mortality returns had shown that Mrs. K., the mother of this young woman, had died at the same address on Sept. 28th, and that Rosie K., sister of Margaret, had died at the same address on Oct. 3rd, each after a brief illness, one at least of them having, it is alleged, complained of tenderness under the armpits. The deaths in each of these cases were certified to have been due to influenza and disease of the chest. Margaret K. was at once removed to the hospital, the nature of her illness being indicative of plague. On Oct. 18th the death of Mrs. L., in Radcliffe-street, had occurred and had been certified to be due to cerebral apoplexy. This woman was associated with the K.'s and had assisted in the washing and laying out of the body of Mrs. K. Into each of these fatal cases no further investigation was, of course, possible. The illness of both boys, Edward W. and James W., unfortunately had a fatal termination on Oct. 26th and 27th respectively.

These are the two cases in which a bacteriological examination has been made and has served to confirm the diagnosis.

On Oct. 26th two children, Rubina J. and James J., also resident in Exmouth-street, and playmates of the K. family, were found also to be suffering from the plague and were removed to the city hospital, where they are at present, with Margaret K.

Dr. Hope in his report pointed to the fact that the patients were well-to-do people living in a respectable environment, and although one or two cases may still be found it is clear that all possible precautions have been, and are being, taken. From time to time during the past two years cases of plague have arrived in the port of Liverpool—a circumstance which Dr. Hope points out is inevitable in view of the fact that Liverpool trades with every port in the world, whether plague-infected or not. But the country may rest assured that although the door for the possible inlet of plague must always be open at Liverpool the doorkeepers scrutinise the entries so rigorously that anything like widespread infection would be immediately detected and stopped.

### THE FIFTH INTERNATIONAL CONGRESS OF PHYSIOLOGISTS.

HELD AT TURIN, SEPT. 17TH-21ST, 1901.

THE following are some further abstracts of communications made to the above Congress:—

#### *The Vagus Nerve Considered as a Motor Nerve of the Heart.*

Professor ONIMUS (Monaco) brought forward considerations to show that the vagus nerve was like ordinary nerves, one which determined the activity of the organs with which it was in communication. He had found that when excited by a faradaic current interrupted with a frequency approximating the rate of the heart (instead of the usual rapidity of interruption) the nerve did not bring on inhibition of the heart, but, on the contrary, contractions which in the end synchronised with the rate of excitation. In all cases, and in every animal, the frequency of stimulation had much greater influence than the strength of the current, and he believed that it was only because a rapid interruption had ordinarily been employed that the nerve came to be looked upon as inhibitory. For example, to produce arrest it required from 15 to 20 shocks per second in the dog, from 20 to 25 in the rabbit, from eight to 10 in the frog, and from five to six in the tortoise. During the hibernation of cold-blooded animals and in debilitated conditions of the warm-blooded the requisite number was considerably less. Thus after a severe loss of blood in the dog from 14 to eight interruptions per second were sufficient to arrest the heart. It was therefore only under certain conditions that excitation of the vagus brought on inhibition and to understand the why and the wherefore of this it was necessary to regard the nerve as the motive agency of a rhythmic mechanism. A simple illustration would make his meaning clear. Suppose a machine were required to elevate a load one metre high, but that the weight were always caused to drop before reaching that height the machine never accomplished its function, however often and however forcibly the weight might be raised, even to a height of 99 centimetres. In the same way if the duty of a nerve-cell were periodically to call into play the activity of an organ, and if a certain period of rest were necessary after each performance, it could never succeed in fulfilling its function if discharged before the time necessary for the accumulation of the requisite energy. A period of rest, long or short, was essential to all organs, and if too short the machine became exhausted in direct proportion to the using up of the sources of energy accumulated by its nutrition. In voluntary organs such matters were regulated by the will, but in those of involuntary activity, when the period of repose brought the necessary accumulation of energy, function set in spontaneously and rhythmic activity was thus established. But if in these latter activity were provoked before the necessary repair had taken place function could not occur, not because they were paralysed, but because an active status was induced too often. Admitting, for example, that the ganglionic cells of the heart required one second of rest to accumulate the energy for producing a contraction, this latter could never occur if they were discharged every half second or even every three-quarters of a second. The heart would remain in diastole apparently paralysed. The greater case with which the arrest of the heart (abnormal vagus activity)

could be called into play in debilitated conditions also pointed to the same conclusion—viz., that the nerve, like ordinary nerves, was one which called into play the activity of the heart and not its inhibition.

*The Action of Ringer's Fluid and of Dextrose on the Isolated Heart of the Rabbit.*

A very admirable demonstration of the above was given by Dr. F. S. LOCKE (London). An excised rabbit's heart fed solely with Ringer's fluid (through which oxygen under atmospheric pressure had been passed prior to entering the coronary vessels) was kept alive and strongly active for several hours. Ordinarily, weakening set in at the end of two hours, but it was very quickly brought on if the supply of oxygen were cut off. Renewal of the oxygen restored the activity almost as before. When gradual weakening set in under the influence of Ringer's fluid and oxygen the activity could be restored by adding 0.1 per cent. of dextrose to the nutrient fluid. The heart then remained strongly active for at least seven hours as a rule. Removal of the dextrose brought on the weak action at any period, while its renewal restored activity and this could be repeated many times in succession.

*The Influence of Diet on the Restoration of the Asphyxiated Heart.*

Professor PREVOST (Geneva) said that in previous experiments he had found that in attempts to restore the heart of an asphyxiated animal direct massage (with artificial respiration) was insufficient. Fibrillary contractions appeared notwithstanding the massage, and were only obviated by an electric discharge of suitable strength or by sending an alternating current of 240 volts through the organ. Recently Prus had succeeded in the majority of cases in preventing the onset of the fibrillary tremors simply by direct massage with artificial respiration. New experiments were therefore undertaken by Professor Prevost in conjunction with Dr. Batelli. In these it appeared that if the animals had been asphyxiated during digestion, massage without the electric current was often sufficient to restore the heart, but never when the animals were fasting. The effect was most constant after a meal of mixed foodstuffs, and of the individual constituents carbohydrates were the most effective, then proteids, and least of all fats.

*A New Method for Investigating the Effects of Drugs or other Reagents upon the Mammalian Heart.*

Dr. T. G. BRODIE (London) demonstrated an apparatus, devised by him, by which the total work performed by the heart of an animal could be determined before and after the administration of a drug. This was ascertained by recording the total output of the heart made to discharge under a constant pressure into a "stromuhr" which worked automatically. The total work was the product of the output multiplied by the mean pressure. Up till then the influence of anaesthetics had chiefly been studied, from which it appeared that chloroform markedly depressed the working capacity of the organ; ether, on the other hand, had but little effect unless given in very large doses, and ethylene chloride likewise had only a slight influence. Suprarenal extract increased the rate of the beat and largely augmented the work performed. It had, in fact, an antidotal effect to chloroform. If administered before the latter the heart withstood much larger doses of the anaesthetic, while a heart greatly depressed by chloroform recovered completely when suprarenal extract was introduced.

*Demonstration of a Recording Stromuhr.*

Professor HÜRTLE (Breslau) gave a demonstration of a recording stromuhr. The working of the stromuhr was shown on a dog. The volume of the blood passing through it was recorded on a smoked cylinder. Lantern slides illustrating the chief results obtained by it were also exhibited. Amongst others these showed (1) the increased volume of blood flowing through the thyroid arteries after clamping the carotid, distal to their origin; (2) quickening of the blood-stream in one carotid in consequence of compression of the opposite, and also as a result of division of the vago-sympathetic nerve; (3) the blood-stream in the crural artery before and after division of the limb nerves and during tetanic contraction of the limb muscles (the latter caused slowing); and (4) normal blood-stream in the gracilis muscle and also during tetanisation of the muscle. The stromuhr also recorded the pulsatile undulations of the blood-stream, and could thus be used to study the relations between velocity and pressure at different phases of the same pulse curve. On a rapidly

revolving cylinder observations could accurately be made at intervals as short even as one-fifth of a second. These showed that the velocity increased much more rapidly, in proportion, than the blood-pressure, as shown in the following example:—Blood-pressure in millimetres of Hg: 87, 93, 101, 110, 120, 131, 145, 161. Volume of stream in cubic millimetres: 400, 500, 600, 700, 850, 1000, 1200, 1500.

*The Origin of the Lymph in the Peripheral Lymphatic Vessels.*

A contribution to this much debated question was given by Professor G. MOUSSU (Alfort). He had made observations on the peripheral lymphatic circulation of large animals under such varying conditions as muscular rest and activity, physiological activity of all the tissues, during secretion, under variations of blood-pressure both local and general, under the effects of toxins both hypertensive and hypotensive, and under those of ergotin. The following were the chief conclusions at which he had arrived: (1) that the lymph in peripheral districts was not a product of simple transudation from the blood-plasma under the influence of blood-pressure; (2) that this transudation was at all times feeble; (3) that the lymph was above all a product elaborated by the tissues and represented blood-plasma largely deprived of its nutritive constituents; (4) that its formation was in direct correspondence with the vital activity of the tissues; and (5) that the peripheral lymphatic apparatus was in a certain sense an excretory apparatus.

*The Relation of Blood Platelets and Leucocytes to Blood Coagulation.*

Professor G. T. KEMP and Miss H. CALHOUN (Illinois) treated this subject. These workers said that they agreed with those who condemned methods of enumerating the platelets which necessitated the drawing of blood into a melangeur before mixing it with a fixing fluid. Van Emden's recommendation to cool the pipette with ice before using, was less objectionable, but meant considerable trouble. The best method was recommended by Laker in 1886, and independently by Professor Kemp in the same year. This consisted in an enumeration of the red corpuscles by one of the standard methods. They themselves had used the hæmatocrit. The skin of the finger was then pricked through a drop of fluid which fixed the blood platelets immediately. Their number and also that of the red corpuscles were determined in the mixture. The absolute number of the platelets could now be calculated from the ratio they bore to the red corpuscles. The most satisfactory fixative was found to be 2½ per cent. "formol" dissolved in 1 per cent. sodium chloride tinged either with methyl violet or methyl green. The number of leucocytes was determined by the Thoma-Zeiss hæmocytometer, using 1 per cent. acetic acid coloured with methyl violet as the diluent. In normal blood the number of platelets per cubic millimetre taken from a mean of 75 observations on 19 different individuals was found to be 778,000. The maximum was 961,500, the minimum 730,000. In the dog, from 15 observations on 10 different animals, the mean was 381,000, the maximum 461,000, and the minimum 349,000 per cubic millimetre. The ratio to the number of red corpuscles was fairly constant but bore no definite correspondence to that of the leucocytes. The connexion between blood platelets and leucocytes and blood coagulation was investigated by a method which they termed "fractional defibrination." A certain proportion of the estimated blood-content of an animal was drawn, defibrinated, filtered, and returned to the circulation. This process was repeated till fibrin was no longer formed. At each interval the red corpuscles, leucocytes, and blood platelets were counted. A similar method had been used by Bizzozero and Bizzozero with Sanquirico when studying the regeneration of blood and the effects of its transfusion. The platelets disappeared progressively with each defibrination, and after the blood had lost its coagulability (from the sixth to the tenth defibrination) they were no longer present. The leucocytes disappeared to some extent, but never completely. Large numbers of them were, however, filtered out, as shown by examining the same specimen before and after filtration. Mononuclear and polynuclear leucocytes were present at all stages and also after complete defibrination. The red corpuscles suffered some diminution but much less than the leucocytes. In leucæmic blood these changes could be studied very readily. During regeneration the leucocytes returned to their normal numbers first, then the red

corpuscles, and last of all the platelets. Professor Kemp and Miss Calhoun, therefore, disagreed with Lilienfeld that progressive disintegrative changes in the leucocytes accompanied the coagulation of normal blood. Lacerated and broken leucocytes were often to be seen in defibrinated specimens and in films preserved by drying. Any diminution in their number was, therefore, probably due to physical laceration or other such effect rather than to chemical disintegration. A true chemical disintegration was suggested by the fusion and breaking up of the spindle corpuscles of frog's blood, but no similar changes were ever observed by them in mammalian leucocytes. Further, it was the exception for leucocytes to form nodes in the fibrin network of coagulation, while it was the rule for masses of platelets to do so. In diluted blood, however, and in thin films, the fibrin was often deposited as needle-shaped crystalloids totally apart from any of the corpuscular elements. The platelets were biconcave, as Hayem had stated, at least when fixed with osmic acid or examined in Hayem's fluid, but they were never found to contain any traces of hæmoglobin and therefore could not be regarded as hæmatoblasts as Hayem meant. Their micro-chemical reactions resembled those of red corpuscles and also those of the nuclei of leucocytes, but were not identical with either. The platelets resisted the digestive action of dilute HCl and pepsin, as Lilienfeld had shown, and this fact indicated a rich content of nucleoproteid, but Macallum's reaction for phosphorus in organic combination gave discordant results. A definite opinion as to their composition was therefore reserved. Professor Kemp and Miss Calhoun agreed with Bizzozero that the platelets were independent elements since it had not been satisfactorily shown that they were related to, or derived from, any of the better known corpuscular elements of blood. Finally, they were the only elements the disintegration of which was to be seen in the coagulation of normal blood.

#### Recent Researches on Blood.

Dr. A. PETRONE (Naples) related results which he had obtained in the study of blood corpuscles by using dilute sulphuric acid as a fixative. In aqueous solution it was of great value in examining the number of white corpuscles, enabling this to be done with ease, rapidity, and certainty. It also revealed the chief forms of their nuclei and allowed of the staining of their protoplasmic granules beautifully. Altogether it yielded him better results than any other fixative employed. When used in minimal quantities added to absolute alcohol it demonstrated a yellowish-brown iron-holding substance within the red globules which Dr. Petrone claimed to represent the primitive nucleus which had not wholly disappeared. Similar appearances were observed in the nuclei of oviparous and embryonic corpuscles. The alcoholic solution fixed ferruginous substances *in situ* and was thus of special value in studying morbid alterations of the corpuscles in chlorosis, &c. By its employment Dr. Petrone believed that he had contributed to the settlement of two very debated problems in hæmatology—viz., the independence of the blood platelets as claimed by Bizzozero and the persistence of the nuclei of the erythrocytes, which, as stated, were not lost but hidden by a great development of hæmoglobin and at the same time transformed chemically from having acid properties like all other nuclei to being basic in function and reaction. It was essential that the reagents should be pure, and it was hoped that the method, for its own sake, would receive wider recognition.

**SANATORIUM FOR SOMERSET, DORSET, AND DEVON.**—Great interest is being manifested in the proposal for the establishment of a sanatorium for consumptive patients in Somerset, Dorset, and Devon. The subject was recently prominently before the Dorset County Council and the West Hants branch of the British Medical Association.

**READING PATHOLOGICAL SOCIETY.**—The sixtieth annual meeting of the Reading Pathological Society was held at the Royal Berkshire Hospital on Oct. 24th, when Dr. Dawson Williams, the editor of the *British Medical Journal*, gave an oration on "Therapeutic Institutions." The orator reviewed the various institutions which are rapidly appearing in this and other countries for the treatment of special diseases and discussed their effect on medical practice. The members and visitors afterwards dined together.

## Looking Back.

FROM

THE LANCET, SUNDAY, NOV. 2, 1823.

To the Editor of the Lancet.

SIR,—As the instrument you use is calculated to reduce those systems which are overloaded with what the old school would have considered vitiated fluids, I wish to call your attention to a morbid condition of that body to which the public applies the general term of THE FACULTY; in which sweeping appellation is included many beings who have nothing but self-appointed titles, by which they gull the community. We see over the shops, and at the private doors of self-taught druggists, in splendid letters, Surgeon, &c.—Surgeon and Accoucheur, &c. &c.—and, by the effrontery and speciousness of these displays, the multitude believe them worthy of every confidence; and the regular and respectable young practitioner is overlooked and daily insulted through these exhibitions. Now, as there is no redress to be had by an appeal to the legislature, I, as a young though regular surgical graduate and general practitioner, think it would be advisable for those who are in like circumstances to assume some designation which would mark the authority with which we offer our services to the public, and which might be a means of salutary depletion. I would propose that instead of the term surgeon, every member of the college, who deems it right to express the nature of his profession on the front of his dwelling, should write up Collegiate Surgeon. If this suggestion be deemed worthy of consideration, you will oblige me by giving it a place in the Lancet.

I am, yours respectfully,

JUVENIS,

Collegiate Surgeon and Authorised Medical Practitioner.

London, Oct. 24, 1823.

#### NOTICE TO CORRESPONDENTS.

Mr. J. is sincerely thanked for the Copy of Guy's Will; we have not yet had leisure to examine it.

## VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6767 births and 3663 deaths were registered during the week ending Oct. 26th. The annual rate of mortality in these towns, which had been 15.6, 15.9, and 16.8 per 1000 in the three preceding weeks, declined again last week to 16.7 per 1000. In London the death-rate was 16.1 per 1000, while it averaged 17.0 in the 32 large provincial towns. The lowest death-rates in these towns were 9.9 in Wolverhampton, 10.6 in Leicester, 10.8 in Croydon, and 11.4 in Brighton and in Halifax; the highest rates were 21.2 in Plymouth, 22.3 in Manchester, 22.5 in Blackburn, and 25.2 in Newcastle. The 3663 deaths in these towns last week included 398 which were referred to the principal zymotic diseases, against 525, 485, and 467 in the three preceding weeks; of these 398 deaths 114 resulted from diarrhoeal diseases, 80 from measles, 64 from diphtheria, 56 from "fever" (principally enteric), 43 from whooping-cough, 34 from scarlet fever, and 7 from small-pox. The lowest death-rates from these diseases were recorded in Wolverhampton, Leicester, Birkenhead, Burnley, and Gateshead, and the highest rates in West Ham, Cardiff, Norwich, and Blackburn. The greatest mortality from measles occurred in Norwich, Manchester, Blackburn, and Sheffield; from scarlet fever in Blackburn; from whooping-cough in Newcastle; and from diarrhoeal diseases in West Ham, Swansea, Liverpool, Blackburn, and Sunderland. The 64 deaths from diphtheria in the 33 towns included 26 in London, six in Cardiff, six in Leeds, five in West Ham, four in Portsmouth, three in Sheffield, and three in Hull. Six fatal cases of small-pox occurred in London and one in Liverpool, but not one in any other of the 33 towns. The number of small-pox patients under treatment in the Metropolitan Asylums hospitals, which had been 169, 175, and 172 at the end of the three preceding weeks, had increased again to 180 on Saturday, Oct. 26th; 57

new cases were admitted during the week, against 51, 37, and 47 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 3353, against numbers increasing from 2994 to 3344 on the seven preceding Saturdays; 400 new cases were admitted during the week, against 426, 422, and 407 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 132, 186, and 196 in the three preceding weeks, further rose last week to 242, but were 73 below the corrected average number. The causes of 33, or 0.9 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Nottingham, Leeds, Hull, and in 16 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Manchester, Sheffield, and Newcastle.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 14.5, 16.1, and 16.9 per 1000 in the three preceding weeks, further rose to 19.3 per 1000 during the week ending Oct. 26th, and was 2.6 per 1000 above the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 13.7 in Paisley and 14.7 in Leith to 23.6 in Aberdeen and 29.0 in Greenock. The 616 deaths in these towns included 27 which were referred to diarrhoea, 13 to "fever," 12 to measles, eight to whooping-cough, five to diphtheria, and four to scarlet fever. In all, 69 deaths resulted from these principal zymotic diseases last week, against 62 and 79 in the two preceding weeks. These 69 deaths were equal to an annual rate of 2.2 per 1000, which was 0.4 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of diarrhoea, which had declined from 53 to 30 in the five preceding weeks, further decreased last week to 27, of which 12 occurred in Glasgow, seven in Aberdeen, three in Edinburgh, two in Leith, and two in Greenock. The deaths referred to different forms of "fever," which had been six, six, and five in the three preceding weeks, rose again to 13 last week, and included 11 in Glasgow. The fatal cases of measles, which had been 14, six, and 15 in the three preceding weeks, declined again last week to 12, of which 10 were registered in Glasgow and two in Dundee. The deaths from whooping-cough, which had been five and 12 in the two preceding weeks, declined to eight last week, and included six in Glasgow and two in Edinburgh. The fatal cases of diphtheria, which had been six, six, and 12 in the three preceding weeks, declined again last week to five, of which three occurred in Edinburgh. The deaths referred to diseases of the respiratory organs in these towns, which had been 75 and 97 in the two preceding weeks, further rose last week to 133, but were six below the number in the corresponding period of last year. The causes of 23, or nearly 4 per cent., of the deaths in these eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 19.9, 19.7, and 19.9 per 1000 in the three preceding weeks, declined again to 19.3 per 1000 during the week ending Oct. 26th. During the past four weeks the death-rate has averaged 19.7 per 1000, the rates during the same period being 15.5 in London and 15.4 in Edinburgh. The 139 deaths of persons belonging to Dublin registered during the week under notice showed a decline of four from the number in the preceding week, and included nine which were referred to the principal zymotic diseases, against 20, 21, and 10 in the three preceding weeks; of these, five resulted from diarrhoeal diseases, two from whooping-cough, one from scarlet fever, and one from diphtheria. These nine deaths were equal to an annual rate of 1.3 per 1000, the zymotic death-rate during the same period being 1.4 in London and 1.5 in Edinburgh. The deaths from diarrhoeal diseases, which had been nine, 14, and five in the three preceding weeks, were again five last week. The mortality from whooping-cough was slightly in excess of that recorded in each of the two preceding weeks. The 139 deaths in Dublin last week included 28 of children under one year of age and 33 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a considerable

diminution as compared with the numbers in the preceding week. Five inquest cases and three deaths from violence were registered; and 46, or about one-third, of the deaths occurred in public institutions. The causes of six, or more than 4 per cent., of the deaths in Dublin last week were not certified.

## THE SERVICES.

### ROYAL NAVY MEDICAL SERVICE.

The following appointments are notified:—Fleet Surgeon A. Patterson to the *President* for three months' hospital study. Surgeons: A. La T. Darley and E. S. Tuck to the *Duke of Wellington*; O. Rees to the Cape Hospital; W. J. Coddington to the *Gibraltar*; and H. Spicer to the *St. George*.

### ROYAL ARMY MEDICAL CORPS.

Captain John Thurlow Olapham is placed on temporary half-pay on account of ill-health. Dated Oct. 21st, 1901. Lieutenant-Colonel George Harrison Younge retires on retired pay on account of ill-health. Dated Oct. 30th, 1901. Captain F. J. W. Porter is seconded for service with the South African Constabulary. Dated July 1st, 1901.

It has been decided that civil surgeons who have been appointed to the Royal Army Medical Corps, may count their service in South Africa towards retirement, but not towards promotion.

Lieutenant-Colonel H. J. Barnes has arrived at Colchester for duty and has assumed medical charge of officers, women, and children.

Out of the probable prospective increase of 102 officers to the corps 40 will be added to the cadre in India.

### INDIA AND THE INDIAN MEDICAL SERVICES.

The King has approved of the following promotions among the officers of the Indian Medical Service:—Lieutenants to be Captains (dated July 27th, 1901): Thomas Hunter, Walter Rothney Battye, Harold Budgett Meakin, George Hutcheson, William Glen Liston, Harold Boulton, Richard William Anthony, Ernest Frederick Gordon Tucker, George Edward Stewart, Frank Stuart Corbitt Thomson, Thomas Shepherd Novis, John William Watson, and Herbert Joseph Richard Twigg.

The King has also approved of the retirement from the service of Lieutenant-Colonel Sarkies Thaddeus Aveloon (Bombay Establishment). Dated Oct. 1st, 1901.

### VOLUNTEER CORPS.

*Rifle*: 4th Volunteer Battalion the Queen's (Royal West Surrey Regiment): Surgeon-Lieutenant F. Norman to be Surgeon-Captain. 2nd Volunteer Battalion the King's (Liverpool Regiment): John Graham Martin to be Surgeon-Lieutenant.

### ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant Albert Hilton, 3rd Volunteer Battalion the Manchester Regiment, to be Surgeon-Lieutenant.

### SOUTH AFRICAN AFFAIRS.

There has been a good deal of fierce fighting on a relatively small scale near Zeerust, when the British were attacked by Delarey and Kemp's commandos; the casualties on both sides were severe. Several engagements have also taken place in various directions elsewhere, otherwise there is not much military news of any importance to be chronicled. What there is, if taken as a whole, is distinctly favourable, although it is not of a decisive character and does not point to any speedy end of the struggle in South Africa.

The system adopted by Lord Kitchener seems to be, practically speaking, the only available one under the circumstances. Under that system the detachments of troops scattered throughout the various districts and along the line of rail occupy blockhouses of corrugated iron surrounded by barbed wire. These form excellent defensive posts, while columns making concerted and converging movements are free to operate elsewhere and to sweep the country and make attacks from time to time on the Boer laagers. If the process is slow it is nevertheless sure, and from all we hear systematic progress is being made—the Boer raiders in the Cape Colony are being steadily driven back, laagers are from time to time surprised and Boers captured, together with the loss on their part of munitions of war, transports, cattle, and supplies. There have been rumours of the death of De Wet, but we shall probably find ere long that that redoubtable and

enterprising warrior is still very much alive and that he has simply been hibernating while hatching some new scheme during his retirement from active operations in the field. Previous experience has shown that irregular warfare of this kind is almost always protracted. It was so in Bosnia and in the Burmese war, and it is so, as the Americans find to their cost, in the Philippines, whither large reinforcements will have to be sent from the United States.

From all that we can learn—and some of our information is gathered from private letters received from those on the spot—there is a very large amount of exaggeration about the condition of the Boer women and children in the camps of concentration. They are well supplied and well cared for. What is wanted is sanitation and a change of site for these camps and the splitting of them up into smaller camps, but this entails great difficulties of administration and not least so in finding a sufficient number of medical officers for the purpose. It is the aggregation, however, of too many people on limited and fouled sites, offering such facilities for the breeding and spread of infection, and the want of proper care and personal cleanliness on the part of the Boers, that have been the main causes of the sickness and mortality among them.

The list of casualties has, of course, increased since we last wrote owing to recent fighting and there is still a very regrettable amount of sickness (mostly from enteric fever) present. We hope that all practicable precautions are being taken for the coming hot season in South Africa.

#### THE SOUTH AFRICAN CONSTABULARY.

Lady Baden-Powell has issued a circular letter to the press in which she expresses on behalf of herself and those associated with her grateful thanks to the many anonymous donors who are sending parcels and money to buy Christmas comforts for General Baden-Powell's South African Constabulary. She also wishes it to be known that the committee have received as many books and magazines as can be forwarded, and that it would greatly facilitate the work of distribution if those who prefer to send in their own parcels would put "S.A.C." and their names clearly on the outside of each parcel. At the same time contributions in money are preferable, affording a great economy in packing and transport. Tobacco can be sent out "in bond" and in special air-tight cases. Funds can be sent to any of the following ladies, and will be personally acknowledged by General Baden-Powell; Lady Baden-Powell, 114, Eaton-square, S.W.; Mrs. Nicholson (no parcels), Basing Park, Alton, Hants; Mrs. McLaren, Glengarry, Woking; and Miss Baden-Powell, 8, St. George's-place, Hyde-park-corner.

#### SYRACUSA CONVALESCENT HOME, TORQUAY.

The half-yearly meeting of the subscribers of this convalescent home for wounded soldiers from South Africa was held on Oct. 22nd. The report showed that during the 21 months the home had been opened 256 men had been admitted, the stay on an average being two months, and the cost for food about 8s. weekly. The subscriptions during the time had amounted to £3042 and there was a favourable balance of £794. The sub-committee have decided to close the home in December next, when it will have completed two years' useful work, and as the Government have now plenty of accommodation at their disposal for convalescent soldiers it is considered that there is no necessity for keeping the home open after the end of the year.

#### LEAN'S ROYAL NAVY LIST.

Few works of reference are so accurate in detail or are arranged in such an admirable manner for ready reference as Lean's Royal Navy List. The ninety-sixth issue of this quarterly publication is now before us and contains matter of interest to all whose business or calling brings them in contact with the King's Navy. Promotions, retirements, and appointments as recent as Nov. 1st are recorded. The publishers are Messrs. Witherby and Co., 326, High Holborn, and 4, Newman's Court, Cornhill. The price of a single volume is 7s. 6d.; the yearly subscription is £1 7s. 6d.

**A CENTENARIAN.**—It is stated that Signor Angelo Alviti, a lawyer at Alatri in Italy who is 101 years of age, has just married a woman of the age of 26 years. Signor Alviti's mother was said to have died at the age of 105 years. He has two daughters aged respectively 77 and 72 years.

## Correspondence.

"Audi alteram partem."

### THE REORGANISATION OF THE ARMY MEDICAL SERVICES.

To the Editors of THE LANCET.

SIRS,—The report of Mr. Brodrick's Committee on the Reorganisation of the Army Medical Services has called forth a great amount of criticism. Much of this criticism is appreciative and generous, and much of it that is hostile is full of valuable suggestions for amendment. Among those, however, who condemn the scheme with such a thoroughness as marked the cursing of the jackdaw of Rheims are some who have evidently imbibed the principle that the Army Medical Service can do nothing but evil all the days of its life, and must, even in its attempts at reform, be influenced by a kind of original sin. There are others who condemn the report *in toto* because they disapprove of certain matters of detail contained therein or base their condemnation upon the omission of details with which the committee could have in a general report no possible concern. There has, indeed, been a disposition in many quarters to appraise the scheme upon a consideration of isolated particulars which, although important in themselves, are insignificant when compared with the general principles upon which the plan suggested in the report is founded. These general principles have been by many critics totally disregarded and have been by others made subservient to matters of secondary import. I should be glad to be allowed to draw attention to the main bases upon which the scheme is founded, lest they be lost sight of in the numerous side issues which are being raised.

In the first place, it may be pointed out that the subject is a very vast one and that the report provides no more than a framework upon which it is hoped that a system of reconstruction may be based. It has no pretence to be a scheme complete in all details. I think that my civilian colleagues on the committee will agree with me that the attitude of the Secretary of State for War in presenting the scheme was not that of a Minister granting concessions under pressure, but that of a Minister who was earnestly desirous of establishing an Army Medical Service which should attract candidates of the best type, which should offer them every inducement to remain in the service, and at the same time to make advance in the work of their profession and fit themselves for the increasing responsibilities of their office. Above all was the desire that the medical department should be made absolutely efficient, should be made worthy of the great army with which it is associated, and should aim at becoming the best medical service of which any country could boast.

The principal features of the scheme are as follows:—

1. The Royal Army Medical Corps is to be under the supervision of an Advisory or Consulting Board, composed of six army officers and four civilians. The Director-General, however, remains "responsible for the administration of the army medical services" and is "responsible for the distribution, promotion, discipline, and general organisation of these services."

2. A very substantial increase in the *personnel* of the Royal Army Medical Corps is rendered necessary.

3. The pay is increased and is raised to a standard more in accord with the pecuniary prospects of a medical man in civil practice at the present time.

4. Liberal opportunities for study are given, while the increase in the corps will obviously give each officer a less share of foreign service.

5. Advancement in the service is by professional merit in distinction to the plan of advancement by seniority. The most speedy promotion falls to the best medical officer.

6. Charge pay is granted and an increased rate of pay is given to those officers who qualify and are employed in certain special branches of medicine and surgery.

7. The establishment of a military hospital and medical staff college for the training of officers of the Royal Army Medical Corps is strongly urged.

The most vigorous objections to the plan laid down in the report are directed to three matters: 1. The Advisory Board. 2. The system of examinations. 3. Certain questions of pay.

1. The utility of the Advisory Board has called forth great diversity of opinion. Those who think the institution of such a board most admirable are equal in numbers to those who condemn it absolutely. Considering the very wide range of subjects which must come within the purview of those who are responsible for the administration of the medical services of the army it would seem that an Advisory Board is almost a necessity. It is an Advisory Board and not an Executive Board. The executive rests with the Director-General. There is nothing in the report to justify the comment of one critic that under the new scheme "the Director-General as a personal factor in the R.A.M.C. practically disappears," nor is there any basis for the suggestion that the board is the outcome of a mistrust in the executive. It would not be difficult to show that an Advisory Board, such as is suggested, would greatly strengthen the hands of those who are charged with the varied responsibilities of administration. Those who condemn the board under the impression that promotions are made by it should read paragraphs 14, 18, and 19 of the report in which it is clearly laid down that the Director-General is "responsible for promotion."

2. The system of examinations has led to much adverse comment. It is the purpose of these examinations to make promotion in the service dependent upon professional ability and to grant the fullest advantages to the officer who does his best to keep his medical and surgical knowledge abreast of the times and who has taken the pains to master some speciality in practice. After receiving his commission an officer under the new scheme undergoes three examinations in the place of two which formerly existed, one of which has sunk into abeyance. So great an alteration has been made in the entrance examination that it has ceased to be the vexatious and irritating test that it was. All the examinations are intended to be practical and as far as possible by *vivâ voce*. The system of testing proficiency by examination is—and always has been—open to considerable question. This applies not only to these particular tests but to all medical examinations. The powers that be, however, have not yet devised any method other than that of examination whereby the entrance of a candidate into the profession can be determined or his fitness for the higher degrees decided. In many hospitals the selection even of house surgeons is by examination. Indeed, at present no other means presents itself which could be regarded as just and adequate except the testing by examination, and it is noteworthy that those who object to such testing in the case of the Army Medical Service have suggested no substitute measure. No one has recommended that promotion should depend upon "confidential reports," and I imagine that no one could be found who would defend that unjust and objectionable system. It must be remembered that while mere promotion is by an examination which tests the officer's capabilities as a professional man, the selection of officers for special appointments rests with the Director-General who will no doubt be influenced by evidence of special fitness in those eligible for such appointments. The examination which has excited most comment is that for promotion to the rank of lieutenant-colonel. This must be passed before the officer has completed 20 years' service and as a preparation for it a period of three months' study is granted. The examination does not deal with medicine or surgery or with any allied science. It is concerned solely with the very administrative work which the officer will—if promoted—be called upon to carry out. Among the subjects are the following: "Hospital organisation, administration, and equipment in peace and war," "The sanitation of towns, camps, troop transports, &c.," "Epidemiology and the management of epidemics," and "The duties of all ranks in the Royal Army Medical Corps." (It is probable that no great stress would be placed upon two of the subjects—viz.: "The medical history of important campaigns" and "The army medical services of other Powers.") The candidate is required to obtain 50 per cent. of the total number of marks. If he fails he is allowed to present himself for a second examination at the end of six months. If he again fails to obtain 50 per cent. of marks he is "compulsorily retired on a gratuity of £2500, or he may, by special permission of the Secretary of State, complete 20 years' service and then retire on a pension." While every possible consideration should be shown to any officer who has been in the service for nearly 20 years it can scarcely be considered a hardship if before he is raised to a position involving very responsible duties he should be asked to give evidence of a minimal knowledge of the matters appertaining to those duties. Moreover, should

it become evident, after two trials, that he does *not* possess that knowledge it would hardly be right to promote him to a post in the qualifications for which he has shown himself hopelessly lacking. No man competent to undertake the duties of the higher rank could object to the examination. The incompetent man naturally would object to it.

3. On the subject of pay I am not competent to speak. I would only say that from a comparison of the proposed rate with that now in vogue it would appear that the increase is substantial and generous. It is possible that the scale will need amendment in certain directions, and it is possible also that the much-cherished "right" to retire after 20 years' service on £1 a day has not been so entirely overlooked as some who have written on this subject suppose.

I am, Sirs, yours faithfully,

Wimpole-street, London, W. FREDERICK TREVE.

#### To the Editors of THE LANCET.

SIRS,—“I am the commanding officer,” was the reply of the chief medical man on board an American hospital ship, which with regard to equipment and management is described as “approaching perfection,” when he was asked where the captain was. If our Army Medical Service is to approach perfection the chief surgeon with an army in the field must in like manner be his own commander, subject only to the general. At present the chief surgeon is expected to serve many masters, and the highest authority has pronounced that to be impossible. Until the chief surgeon is delivered from the power, amongst others, of the commissariat and ordnance departments he never will be able to do justice to the sick and wounded during a campaign. Transport and equipment should be under his control. This means money, and a great deal of it, and it is imperative that the people of England should know how the matter stands. If they choose to find the money well and good, but it is unfair to blame the surgeons for failing to do impossibilities.

I am, Sirs, yours faithfully,

Oct. 28th, 1901. PROPHYLAXIS.

### ARSENIC IN BEER: THE EPIDEMIC OF PERIPHERAL NEURITIS.

#### To the Editors of THE LANCET.

SIRS,—In answer to your kind request that we should state the facts of our position with regard to the recent epidemic of peripheral neuritis we take pleasure in sending the following particulars:—

In September of last year we noticed the excessive incidence of peripheral neuritis in patients attended both in and from the Chester Infirmary, and quite independently concluded that many of the cases more closely resembled beri-beri than any other disease of which we were cognisant. Knowing of the recent epidemic at the Richmond Asylum, Dublin, we communicated with Mr. Conolly Norman, who very kindly, on Nov. 12th, sent us his notes on the subject. A perusal of these strengthened our opinions, and on Nov. 17th we completed a paper which appeared in the *British Medical Journal* of Dec. 1st. On Nov. 23rd we learnt with some surprise of a similar epidemic in Manchester, and on the evening of that day one of us (J. R. P.) went over, and, through the courtesy of Dr. Corsar Sturrock, was allowed to see several of the cases in the Manchester Royal Infirmary and was able to demonstrate the presence of a peculiar pre-tibial and pre-sternal œdema in each case, a point which had up to then escaped observation there. On the morning of Nov. 24th we called upon the medical officer of health of Chester, and with him saw the chairman of the Public Health Committee, and with a view to eliminating our theory of the disease we urged that an expert in tropical diseases should be asked to see the cases at once. Accordingly on the next day Major Ronald Ross came over, and by the kind permission of the medical staff saw 10 of the home and in-patients of the Chester Infirmary, and expressed his opinion that the disease resembled tropical beri-beri even to the minutest details. Major Ross forwarded a communication to that effect which appeared in THE LANCET of Dec. 8th, p. 1677. With regard to the etiology of the disease we cannot do better than refer you to our conclusions which appeared in the *British Medical Journal* of Dec. 8th. Our main contention was the extreme resemblance which the cases presented to beri-beri, and we expressed the opinion that they were either this disease or

that a condition indistinguishable from it could be produced by some other cause. These ideas were very adversely and, we think, unfairly criticised, and now, after the lapse of nearly a year, appear to be receiving considerable confirmation.—We are, Sirs, yours faithfully,

W. A. NEWALL, M.D., Ch. B. Vict.

J. R. PRYTHERCH, M.B., Ch. B. Edin., M.R.C.S. Eng.,  
Oct. 28th, 1901. L.R.C.P. Lond.

## THE NEEDS OF THE ROYAL LONDON OPHTHALMIC HOSPITAL (MOORFIELDS).

*To the Editors of THE LANCET.*

SIRS,—A year has now passed since the governors of the Royal London Ophthalmic Hospital were summoned for rates. At that time, thanks to the publicity given to the case, both by the London and by the provincial press, many friends sent prompt and generous help enabling the committee to meet this demand, and the rates were fully paid. The committee, have now, however, to face a similar demand, and this at a time when they are seriously hampered in their endeavours to meet the ordinary expenses of the hospital, by reason of the calls on the charitable public of other and more national demands. We, therefore, beg you to help them by making known to the public the very grave position of this great charity.

The committee had hoped that during the last session of Parliament an Act would have been passed to relieve hospitals, wholly or in part, from rates, but, although the Select Committee appointed by the House of Commons made their report as far back as July, 1900, there has been up to the present no legislation on the subject. The report called attention to the numerous anomalies existing in the rating of hospitals, some of which are exempted from rates by local statutes, while many have been treated with the greatest consideration by the rating authorities. On the other hand, the rates are a heavy burden to some hospitals, but few are so terribly crippled by them as the Royal London Ophthalmic Hospital, which is still compelled to keep half its beds closed, and although last year the annual subscriptions amounted to £1096, out of these rates and taxes to the extent of £896 had to be paid. This year the hospital has already paid £700 on this account, and now a further demand is made for £250. The local rating authorities say they cannot lower the assessment, and point out as one reason that this great hospital does not exist for the relief of the district or even of the City alone, but receives patients from every part of the kingdom. Therefore, the committee appeal to all for help to enable this national charity to tide over a pressing emergency.

Donations and annual subscriptions may be paid to Williams Deacon's Bank Limited, 20, Birchin-lane, E.C., or to the Secretary at the Hospital.

We are, Sirs, yours faithfully,

AVEBURY,

President,

H. P. STURGIS,

Chairman of the Committee of Management,

HY. DAVISON,

Chairman of the Finance Committee.

Royal London Ophthalmic Hospital (Moorfields Eye Hospital),  
City-road, E.C., Oct. 28th, 1901.

## "ACUTE DILATATION OF THE STOMACH"

*To the Editors of THE LANCET.*

SIRS,—The following remarks may be of interest in connexion with the paper on Acute Dilatation of the Stomach, with Illustrative Cases, read before the Royal Medical and Chirurgical Society on Oct. 2nd by Dr. H. Campbell Thomson, THE LANCET.<sup>1</sup> Acute gaseous dilatation is of frequent occurrence, often associated with agonising pain and with a feeling of impending death, yet not fatal. In cases of this sort there is no permanent obstruction; usually unaccompanied by vomiting they tend to be relieved by it when it does occur. In them the pain is due to the excessive pressure of gastric inflation superadded to the normal or to an increased volume of intestinal gas, and the abdomen is

enlarged, but to a great extent into the thorax. Fatal cases such as are brought forward by Dr. Thomson differ from them in all those particulars. The pain is not acute, vomiting does not relieve, the abdominal distension is not necessarily considerable or may be almost absent, the gastric distension makes for the abdomen rather than for the thorax, and the intestine is almost airless. Death occurs from the exhaustion of vomiting rather than from pressure. These are essentially cases of obstruction.

As noted by Dr. Thomson, the dilated stomach is bent at an angle, and, as I have repeatedly demonstrated in the post-mortem room, not only the pyloric portion, but the first part of the duodenum, is apt to take a sharply ascending direction, and the pancreas is also made to slope. The mechanism of the distension is obscure, and although in both groups we may admit a large element of disturbed innervation we are still unable to determine where the gas or the fluid may come from. But the mechanism of the fatal obstruction is capable of explanation and sometimes of relief, at least in a section of the cases. That in these the pylorus is not the seat of absolute obstruction is almost proved by the circumstance, urged by Dr. Voelcker in the discussion on the paper, that bile is vomited: it is entirely proved, as in Dr. Thomson's Case No. 2, by the fact that the first portion of the duodenum is distended as well as the stomach. As to Dr. Thomson's other cases, it may perhaps be allowable to suppose, in the absence of any statement to the contrary and on the strength of definite observations made in other instances, that in them the duodenum may have been in an analogous condition. Collateral evidence of the absence of pyloric stricture is afforded by the 10 cases which he tabulates,<sup>2</sup> only one of which presented pyloric disease (described as "narrowing the orifice"), whilst in the remainder no abdominal lesion was found except in two cases where the disease was in the vicinity of the duodenum. The combination of a collapsed intestine and of a distended first part of the duodenum, as in Dr. Thomson's Case No. 2, sufficiently localises the obstruction. The latter is found, as was shown by Rokitsky, and later by Glénard, Kundrat, Schnitzler, Albrecht, and others, at the junction of the jejunum with the transverse portion of the duodenum; this is strangled by the weight of the collapsed intestine which drags the mesentery, and particularly the superior mesenteric artery, as a cord over it. According to this view the collapse of the intestine, however produced, whether from marasmus or more often from shock or exhaustion, is the primary event and not the result of compression by a dilated stomach, and obstructive gastric distension follows. As mentioned by P. A. Albrecht, whose exhaustive essay in Virchow's Archiv<sup>3</sup> was referred to in a joint communication made by Mr. F. Jaffrey and myself to the Harveian Society of London<sup>4</sup> "on a case of uncontrollable vomiting relieved by laparotomy and manipulation, and due to the pressure of an aneurysm," the individual length of the mesentery is one of the etiological factors. Intestinal collapse further elongates it so as to allow the intestine, particularly in women, to drop like a dead weight permanently into the pelvis. It is unnecessary that I should dwell upon the other factors and upon the various views which have been advanced, having given a brief account of them in the remarks appended to the paper just mentioned.

This anatomical explanation is probably applicable, with variations, to most cases, and in particular to those which occur after operations involving profound anaesthesia and shock, and to those which arise apparently spontaneously after relatively trivial complications, where the subjects are predisposed to enteroptosis by the original length of their mesentery and by previous malnutrition and exhaustion. I have suggested that in some of the mysterious cases of so-called "hysterical or neurotic" type, with advanced emaciation and prostration, the persistent vomiting may be kept up by analogous conditions independently of any major gastric dilatation.

The treatment of this form of obstruction is suggested by its cause. The stretched mesentery must be relieved by raising the intestine from the pelvic trough. The rational cure for the visceral malposition and the resulting gastric dilatation is posture. The knee and elbow position advocated by Albrecht may not often be available owing to

<sup>1</sup> Loc. cit., p. 1115.

<sup>2</sup> Ueber Arterio-Mesenterialen Darmverschluss an der Duodeno-Jejunalgrenze und seine ursächliche Beziehung zur Magenverwölbung (with bibliography). Virchow's Archiv, Band civl., Heft 2, 1899.

<sup>3</sup> THE LANCET, Oct. 28th, 1899, p. 1155.

<sup>1</sup> THE LANCET, Oct. 26th, 1901, p. 1113.

<sup>2</sup> Loc. cit., p. 1122.

the patient's weakness, but it may be possible to incline the patient to the right, to elevate the pelvis on pillows, and to raise the foot of the bed, whilst skilled manipulation is applied to the abdomen by the medical attendant himself. These simple measures should be borne in mind in all cases of persistent vomiting supervening in emaciated and exhausted subjects. Lavage is an obvious indication; and if, as alleged by L. Meyer, a distended and depressed stomach is competent to obstruct the duodenum, it might sometimes prove an effectual remedy. If all this should fail laparotomy remains as the only resource, and it should be performed with an eye to the form of obstruction to which I call renewed attention, and which, to include all varieties, might be described as "duodenal pressure-obstruction."

I am, Sirs, yours faithfully,

WILLIAM EWART, M.D. Cantab., F.R.C.P. Lond.,  
Senior Physician to St. George's Hospital and to the  
Belgrave Hospital for Children.  
Curzon-street, W.

*To the Editors of THE LANCET.*

SIRS,—Curiously enough, before I had seen Dr. H. Campbell Thomson's paper upon Acute Dilatation of the Stomach in THE LANCET of Oct. 26th, p. 1113, a case met with in the post-mortem room this afternoon seemed to suggest that probably many of the cases of moderate dilatation of the stomach found after death are of acute nature. In a woman, aged 25 years, who had died from puerperal fever, the stomach extended below the umbilicus, and, although it contained only about eight ounces of fluid it was found to be capable of holding 150 ounces of water without further distension. The duodenum also was much distended and was fully double its normal size. The jejunum was unaffected. In the last number of the *Bristol Medical-Chirurgical Journal* is a reproduction of a rough sketch of mine of a dilated stomach, which must almost, if not quite, have equalled in size the stomach of which Dr. Thomson has given an illustration. No mechanical obstruction was pre-ent and the duodenum in this case also was much distended. The cause of death was septicæmia associated with a suppurating thrombus in the left cavernous sinus.

I am, Sirs, yours faithfully,

Clifton, Bristol, Oct. 26th, 1901. THEODORE FISHER.

*To the Editors of THE LANCET.*

SIRS,—I shall be much obliged if you will allow me to add a few additional references to my paper on the above subject which appeared in THE LANCET of Oct. 26th, p. 1113. Since my paper was written I have had an opportunity of seeing the recently published work on "Diseases of the Stomach and their Surgical Treatment" by Mr. Mayo Robson and Mr. Moynihan. In the chapter on Acute Dilatation four fatal cases are recorded as having occurred at the Leeds Infirmary and two others in which recovery took place after the onset of acute symptoms; other cases in English and foreign literature are also alluded to. Among other interesting communications on this subject are those of C. R. Box and Outhbert Wallace,<sup>1</sup> Dyson,<sup>2</sup> Kelynack,<sup>3</sup> and Donald Hood.<sup>4</sup>

I am, Sirs, yours faithfully,

H. CAMPBELL THOMSON.  
Queen Anne-street, W., Oct. 28th, 1901.

"THE AFTER-COMING HEAD; PREVENTION OF ASPHYXIA."

*To the Editors of THE LANCET.*

SIRS,—In reply to Dr. Edwin Smith's letter in THE LANCET of Oct. 26th (p. 1155) in which he asks what are the objections to the introduction of a tube into the child's mouth in cases of delay of the birth of the after-coming head, does it sometimes fail, and, if so, why? I would give the following answer. 1. The difficulty of introducing such a tube and keeping it *in situ* may be considerable. 2. Even after its introduction it is often impossible to get the child to breathe with its head in the vagina. 3. In many of these cases, owing to premature efforts at respiration having been made, the child's mouth and pharynx contain foreign matters, such as liquor amnii

and blood. 4. Under these conditions the introduction of a tube, especially if the child be further stimulated to breathe, is likely to favour the passage of such fluids into the larynx and so further to increase the risk to the child's life. 5. The time spent in introducing a tube would be better employed in applying forceps to the head since cases are very rarely met with in which the head cannot be at once delivered by the use of forceps. 6. If the child makes attempts at respiration with the head still in the vagina, the immediate delivery of the head and the performance, if necessary, of artificial respiration are likely in the majority of cases to give better results than the use of a tube. 7. If the use of the tube fails, as the recorded cases show it sometimes does, valuable time will have been lost. 8. As the child's life is in danger any risk to the perineum of the mother may be neglected. I am quite prepared to admit that a delay of a few minutes may make all the difference to the chances of a bad tear of the perineum, but, as I have already said, when the life of the child is at stake this risk should not be taken into consideration. It is probable that the best results will be obtained in these cases by having ready at hand all the appliances necessary to revive the child if it be born asphyxiated; by keeping up well-applied pressure on the fundus of the uterus during the delivery of the trunk, so as to avoid extension of the arms and head; and by delivering the head as rapidly as possible if the child's life is endangered by shoulder and jaw traction, or, better still, by the application of forceps.

I am, Sirs, yours faithfully,

Wimpole-street, W., Oct. 29th. GEORGE F. BLACKER.

"THE SANITARY STATE OF TORQUAY."

*To the Editors of THE LANCET.*

SIRS,—I was glad to see in THE LANCET of Oct. 19th, p. 1075, a letter requesting you to use influence with the town council of Torquay to remove the Destructor from its present position. The letter fully explained why the situation in which it is placed is incurably faulty. But it hardly mentioned that the Destructor Committee hardly deny that the fumes issuing from the chimney are injurious to health, and intend—let me quote from the local paper—"to engage an analytical chemist of the first rank to analyse the fumes as they emanate from the destructor furnace" in order that the said wise-heads may determine whether "the complaints are founded on fact or fancy" and whether "the fumes are or are not noxious." As if fumes could be anything but noxious. So much for the judgment of our sanitary authorities. *Quis custodiet, &c.* Of course there are mortals whose noses are only more or less ornamental appendages, but even they condemn the clouds of smoke which drift round and about.

Our *patres conscripti* are not satisfied with this outrage on the purity of our air. A charming valley that, if at Bournemouth, would have been lovingly planted with flowers, is being, "by authority," filled with the garbage of the town. From this baleful barbarism issue breezy odours hardly helpful to those with delicate lungs, or throat, or stomach. We Uptonians are poor and cannot afford to apply for a legal injunction, and therefore we appeal to an authority respected by the civilised world—to you, Sirs—to aid us in the abolition of these nuisances.

I am, Sirs, yours faithfully,

S. GROSE, M.D. St. And., F.R.C.S. Eng.  
Torquay, Oct. 25th, 1901.

"THE TREATMENT OF TUBERCULOSIS."

*To the Editors of THE LANCET.*

SIRS,—You published a few years ago a case of mine, "A Child, Four Years Old, with Acute Phthisis. Cured."<sup>1</sup> I then detailed the treatment. In all the correspondence I have seen in THE LANCET on tuberculosis nowhere have I seen any medicinal treatment recommended as having proved successful where everything has been against the patient's recovery, but as hundreds of cases of phthisis occur in which the patients are pecuniarily unable to avail themselves of the open-air treatment, it remains that such patients must die unless by medicinal treatment something can be done to check the disease if not to destroy it.

<sup>1</sup> Transactions of the Clinical Society of London, 1898.

<sup>2</sup> Medical Press and Circular, vol. i., 1897.

<sup>3</sup> Medical Chronicle, vol. xvi., 1892.

<sup>4</sup> THE LANCET, Dec. 19th, 1891, p. 1389.

<sup>1</sup> THE LANCET, June 4th, 1898, p. 1536.

For years I have tried the treatment which proved successful in the case published and now I have three cases which may be seen. One is the case of a very near relative, a young man, aged 21 years. His illness began with an attack of influenza. He was a clerk away from home a day's journey, persisted in going to his work, slept in a bed in which the late occupant (the landlady's husband) died from phthisis, and of which he was not even made aware till after pulmonary tuberculosis plainly manifested itself, when the landlady informed him that "he was just like her late dear husband who died on that very bed he had been sleeping on." Means were not available to send this young man away. He has been treated at home, yet in spite of a decided check caused by a chill caught through carelessness by lying on the grass, setting up pneumonia with pleurisy, he is gaining strength, sweating has ceased, and he is gaining weight rather than losing. I feel this case so far will be enough and I need not trespass on your space with others to show that medicinal treatment, apparently neglected, may do much to alleviate the distress and the loss sustained by this disease.

I am, Sirs, yours faithfully,  
G. P.

## NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

### *The Plague Epidemics.—Collapse of the Outbreak of "Epidemic Dropsy."*

ANOTHER slight receding wave is noticeable in the general movement of plague mortality in India. This week there have been 236 fewer deaths, the total being 7043 as against 7279 last week. The reduction has taken place in the Bombay Presidency. A slight increase has occurred in the Punjab and Mysore. Bombay City returns 182 deaths, the Punjab 164, and Mysore State 345. Plague has appeared suddenly in Benares, but only a few cases have occurred as yet. The usual experience seems to be that when the disease either first attacks a place or recurs in it cases keep cropping up in small, but perhaps gradually increasing, numbers for several weeks, and that it then seems to take on a sudden outburst and rapidly develops to its maximum. After the maintenance of a very high mortality for a short time it subsides as rapidly as it rose. There are at the present moment several places in India where the disease has commenced to develop or to recur during the past few weeks. There are others where the disease continues mildly but uninterruptedly. The latter may expect their outbreaks in due course—that is, when the usual intervals have elapsed. As plague outbreaks have occurred at all seasons of the year the determining cause would seem to be independent of heat, dryness, or altitude. For any given place the accident of introduction would seem to determine the time of the year when it should be subjected to the epidemic influence. No other explanation seems satisfactory.

The small outbreak of so-called "epidemic dropsy" in Calcutta has completely subsided. No other cases have been reported. Nothing decisive has been discovered by the bacteriological examination of the blood.

Oct. 12th.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

### *The New Sanatorium in connexion with the Liverpool Hospital for Consumption.*

ON Oct. 18th, in the presence of a large and influential number of invited guests, the Countess of Derby formally opened the new sanatorium in Delamere Forest (provided by Lady Willox and Mr. William P. Hartley at a cost of £15,000) in connexion with the Liverpool Hospital for Consumption. The idea of a sanatorium first suggested itself to Mr. Hartley, to quote his own words, "by reading a leading article and also reports of the proceedings under the presidency of the King (then Prince of Wales) at Marlborough House, and the speeches of eminent physicians from all parts of the kingdom." He felt irresistibly drawn to do something towards bringing Liverpool

into line with that great movement for the benefit of patients affected with tuberculosis. He found a willing helper in Lady Willox, the wife of Sir John Willox, M.P. Lady Willox was unfortunately unable to be present at the opening ceremony owing to illness. She had watched the inception and the progress and now the completion of the building with great interest, and it was therefore, I feel sure, a keen disappointment to her not to be able to witness the opening of an institution to which she had contributed so largely. Lady Derby, in declaring the sanatorium open, expressed a hope that it would always continue to prosper and to do good.

### *Liverpool Country Hospital for Chronic Diseases of Children.*

Mr. T. Sutton Timmis has contributed £1000 to the fund now being raised for the erection of the Country Hospital for Chronic Diseases of Children.

### *Liverpool Guardians' Joint Hospital for Tuberculosis at Heswall.*

ON Oct. 25th Mr. Walter Long, the President of the Local Government Board, laid the foundation-stone of the new joint Poor-law hospital for tuberculosis at Heswall. The site for the hospital is very pleasantly situated on the hillside near Heswall, well sheltered from the east winds, and commanding extensive views of the estuary of the Dee and the Welsh coast. The total area of the land is about 15 acres. The buildings are being erected with the main front facing due south. The administrative block will be in the centre, and immediately in front on the first floor will be an open-air sun-bath, divided for the two sexes. On either side of the administrative block will be the two wings, two storeys high, containing dormitories for 24 patients—viz., 12 male and 12 female. To every patient will be allotted 1000 cubic feet of air-space. All the windows will be made to open as casements and all the rooms will be heated when necessary during inclement weather. In the rear of the main building will be the dining-hall, connected by corridors, with cross ventilation, and fitted complete with the usual kitchen and other offices. The water-supply will be from the West Cheshire Waterworks and the drainage will be dealt with on the usual improved lines. The total cost of the land and buildings will be about £12,000. Mr. Long said that none of the duties which had fallen to his lot—and many of them were agreeable—had given him so much and such permanent pleasure as the one which he had performed that day. Sir John Willox, who supported the vote of thanks to the President of the Local Government Board for the interest he had taken in the new hospital, pointed out that three separate boards of guardians had sunk all jealousies and differences and had worked harmoniously in a great and humane work and had so secured to the public of Liverpool a valuable and a useful institution. The day was also auspicious from the fact that Liverpool stood in the forefront in a great philanthropic work, as this would be the first hospital of its kind in the kingdom. The new hospital would not only be a sanatorium for consumptive patients, but also an educational establishment from which they hoped cured patients would take home with them a knowledge of the principles that tended to eradicate consumption.

### *The City Council and the Proposed University for Liverpool.*

The practical unanimity in Liverpool in regard to a separate university was evidenced at the last meeting of the city council in a striking manner, when it was resolved unanimously to apply for Parliamentary powers during the ensuing session to enable the corporation to assist in the foundation and maintenance of such an institution. The question of a large donation at once or an annual contribution may well remain for future consideration, but from the general tenor of the debate it could be seen that the latter alternative was the popular one.

### *Mr. Benn W. Levy and the Honorary Freedom of the City.*

ON Oct. 17th the honorary freedom of the city was conferred on Mr. Benn Wolfe Levy, one of the trustees of the David Lewis fund. It fell to Mr. Levy's lot to administer the large fortune acquired by the late Mr. David Lewis. The money was left to be expended at the discretion of Mr. Levy and his co-legatee, Mr. George Cohen, and seldom has a labour of love been performed with so much zeal, with so much fidelity to what was believed to be the intentions of the donor, or with a greater impartiality towards the

whole body of citizens. The David Lewis Northern Hospital, which is the chief enterprise of the David Lewis trust in Liverpool, has been equipped with every apparatus that modern science can suggest. No expense has been spared to secure the highest efficiency attainable. Mr. Levy also devoted a further portion of the David Lewis trust towards increasing the funds of the Victoria Nursing Institution, which was founded in commemoration of the Diamond Jubilee of Her late Majesty Queen Victoria.

*Cyclists' and Harriers' Parade for the Benefit of the Hospitals.*

The annual cyclists' and harriers' parade, which took place in the early part of the summer, was highly successful, the collection taken along the line of route having proved a record one. The sum available for distribution among the charities was £725. Since the inauguration of the parades in 1892 the cyclists and harriers of Liverpool have distributed among the various charitable institutions connected with the city £3958.

*Plague in Mediterranean Ports.*

In view of the reappearance of plague in certain Mediterranean ports Dr. E. W. Hope (the medical officer of health) has issued a circular letter to the profession inclosing a copy of Dr. Balfour Stewart's memorandum setting forth the diagnostic signs and symptoms of plague, similar to that forwarded from the Health Department in September, 1900.

*Medical Service at St. Luke's Church.*

The service arranged for medical men at St. Luke's Church on Oct. 20th was very successful. About 300 members of the profession attended, seats for whom were reserved in the centre aisle. Besides the wives and friends of the medical men present a large number of nurses occupied the gallery. The sermon was preached by the Lord Bishop, and the collection was devoted to the Medical Benevolent Fund.

*Plague in Liverpool.*

Official information has been received in Liverpool from the Local Government Board that two recent deaths in Everton were due to bubonic plague.

Oct. 29th.

## WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

*The Senghenydd Colliery Explosion.*

THE inquiry by the coroner into the cause of the death of the 81 men who were killed while working underground in the Universal Pit, Senghenydd, on May 24th last when an explosion occurred was concluded on Oct. 24th. It will be remembered that only one man was rescued alive. Professor W. Galloway conclusively demonstrated a few years ago that the soft smooth coal-dust scattered over the workings is responsible for the transmission of the flame when once a mine becomes fired, and although the jury agreed that this was the case in the particular instance under investigation they found that it was not possible, owing to conflicting opinions expressed by his Majesty's Inspector of Mines and Professor Galloway, to locate the exact spot where the explosion took place. It was stated during the inquiry that there is no statutory obligation upon colliery managers to keep the workings well watered.

*A Defaulting Sanitary Authority.*

The Carmarthenshire County Council has decided to make a representation to the Local Government Board in accordance with the provisions of Section 299 of the Public Health Act, 1875, to the effect that the Llanelly Rural District Council has made default in enforcing the provisions of that Act. The population of the district at the last census was 24,213. That portion of the district known as Burry Port appears to be in the worst sanitary condition, but there are generally lack of drainage, insufficient water-supply, and no means of dealing with cases of infectious disease. The desirability of appointing a county medical officer of health for Carmarthenshire has upon one or two occasions been discussed by the county council, but no disposition has been shown to make such an appointment.

*Sir Frederick Treves at Bristol.*

The first municipal bacteriological laboratory in England

was established a few years ago in Bristol by the medical officer of health (Dr. D. S. Davies) with the assistance of Dr. Walter Dowson, and on Oct. 25th Sir Frederick Treves formally opened a bacteriological department in connexion with the Bristol Royal Infirmary. Later in the day Sir Frederick Treves distributed prizes to the medical students attending University College, and in his address to the students was particularly happy when comparing the history of the successful medical practitioner with the history of the city of Bristol—a town which had made its way without natural advantages and entirely by its own energies and efforts. The annual dinner of the Bristol Medical School was afterwards held at the Royal Hotel, under the presidency of Dr. Markham Skerritt, Sir Frederick Treves being the guest of the evening. There was a large company which included the Lord Mayor and the majority of the members of the local medical profession.

*The Church and Sanitation.*

The question of the housing of the working-classes was discussed both at the Llandaff and at the Hereford Diocesan Conferences which were held last week, and at each gathering there was displayed by those who took part in the discussions very considerable familiarity with the duties and obligations of sanitary authorities. The address of the Rev. C. A. Treherne at Hereford was exceptionally accurate in points of detail and his exposition of the Housing of the Working Classes Act was particularly lucid. The only portion to which exception could be taken was when he advocated the relaxation of the stringency of the model by-laws relating to new buildings. These by-laws are not perfect by any means, but those who are officially connected with sanitary administration are constantly warning us that in those districts where these regulations have not been adopted, or where adopted have not been enforced, there is going on a steady manufacture of slum property which in a very few years will give us as much trouble as that which it is now replacing has done. The Bishop of Hereford suggested that every dwelling-house should be labeled with the name of its owner, who in many instances would be ashamed to be known as the owner of a house unfit for decent habitation. Not only the Bishop of Hereford, but several prominent speakers at the Llandaff conference and at Hereford spoke in strong terms of the necessity for placing the inspection of houses with reference to sanitation and overcrowding in the hands of competent officials who should live away from the districts which they inspect and should have no personal connexion with them. This is equivalent to saying that sanitary officers should not be liable to dismissal at the hands of local authorities merely for capricious or personal reasons. This expression of opinion coming from men of education occupying responsible positions will commend itself to all those who desire to see the public health service placed upon a more satisfactory footing than that upon which it is placed at present.

*Brentry Inebriates' Home.*

The Home Secretary has extended the certificate of this institution to allow of 50 females being admitted in addition to the 150 whom the institution is already authorised to accommodate.

Oct. 28th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

*General Council of the University of Edinburgh.*

THE statutory half-yearly meeting of this body was held in Edinburgh on Oct. 25th. Sir William Muir occupied the chair and there was a large attendance. Mr. F. Grant Ogilvie, director of the Museum of Science and Art, and Mr. Campbell Lorimer, advocate, were elected assessors in the University Court in place of Mr. Hope Findlay, W.S., and Mr. Taylor Innes, advocate, whose term of office had expired. The joint report by the business and finance committees was then submitted. It deals with the Carnegie Trust. It points out that the income of the fund amounts to £100,000 per annum, which sum is divided mainly between two purposes: (a) the increase of teaching power and facilities and (b) the payment of class fees of Scottish students. The joint committees under the first head of Mr. Carnegie's gift recommend the General Council to

represent to the University Court that the following are clamant needs of the university—namely:

1. The development of the work of the university in connexion with the teaching of modern languages.
2. The strengthening of the teaching staff in the medical faculty, so that subjects which have recently become of increased importance should be adequately represented.
3. The provision of suitably equipped laboratories for the instruction of students in all graduation subjects for which practical work is required.
4. The establishment of laboratories providing facilities for research in the main lines of scientific work.
5. The improvement of the library.

The next report submitted dealt with the decrease in the number of students. Both reports were adopted. Dr. Richard J. Berry then proposed the following motion of which he had given notice:—

That this council requests the University Court to inquire into the feasibility of reorganising the medical curriculum on the lines suggested by the Pathological Club of Edinburgh.

The lines referred to were practically the inclusion of the present extra-mural school in the university. This motion was remitted to the standing committees for consideration. Dr. Ernest Greville then moved:—

That returns be made showing (a) the number of hours spent by each professor in teaching his practical classes; (b) the number of hours so spent by the assistants; (c) the amount paid by the students for such practical classes. Voting to be by ballot.

This motion was submitted in a speech of considerable length which developed into an attack on Professor Chiene, and the speaker was several times interrupted by the chairman. The previous question having been moved, it was carried by 33 to 21 votes. At the last meeting of the General Council Dr. Greville made an attack upon the conduct of the practical classes which met with much sympathy, although it was felt that the introduction of the names of individual professors was a tactical blunder, however true the statements might be. The question raised is one of very great importance, and it is a pity that it should have been spoilt by personal references which were not essential to it, although they added a certain piquancy and produced a measure of heat on both sides.

#### *Royal College of Surgeons of Edinburgh.*

Dr. J. Halliday Croom has been elected president of this College in succession to Dr. J. Dunsmure.

#### *Volunteer Medical Staff Corps, Glasgow Companies.*

Under the guidance and direction of Surgeon-Lieutenant-Colonel G. T. Beatson, together with the enthusiastic co-operation of the other officers, the progress of the Glasgow companies of the Volunteer Medical Staff Corps has been both sustained and rapid. The organisation is now extended to five companies and candidates for admission are at all times numerous. Under the auspices of the Scottish Committee of the Red Cross Society Surgeon-Lieutenant-Colonel Beatson on Oct. 25th gave a public lecture on Ambulance Work on the Field of Battle. The interest of the occasion was increased by the presence of Major Hautonville Richardson, who explained the employment of dogs as agents for the discovery and assistance of wounded soldiers and exhibited four dogs which he had trained for this purpose. On the following day a practical demonstration of ambulance work was given on the drill-ground at Yorkhill and attracted a large number of the public. The main idea was to illustrate the surgical assistance rendered on the field of battle to a brigade in action, the organisation including the collection of wounded by a bearer company and their conveyance by successive steps to the collecting station, dressing-station, and field hospital. Surgeon-Major W. F. Somerville was in command of the bearer company. The cyclist detachment of the corps gave a special exhibition of the use of the bicycle in ambulance work, and Major Richardson's dogs proved their efficiency by discovering "wounded" who had otherwise been overlooked. The proceedings were highly successful and reflected great credit on all concerned. Many of those who took part in the demonstration have recently returned from active service in South Africa. Quartermaster Lee and Sergeant-Major Kenney are among those who have in this way taken part in ambulance work at the seat of war.

#### *Curious Action against the Glasgow Corporation.*

On Oct. 25th, at the Glasgow Sheriff Court, a claim was

brought against the corporation by the landlords of some house-property. It seemed that there lately resided in the house in question a tenant against whom an ejection order had been obtained which was duly put in force. The tenant, when expelled from the flat, having no other house to which to go, sat down outside the house holding in her arms a child apparently ill. Whilst there she was spoken to by a sanitary inspector, to whom she gave the information that the child was recovering from measles. The inspector then called upon the landlords' agent and suggested that the mother and child should be permitted to return to the house, promising that if this were done he would get the house fumigated. To this the agent consented, but the sanitary authorities did not carry out the fumigation until a month had elapsed, and during this time two tenants left the property, and some vacant flats could not be let in consequence of the reputation of the house occupied by the woman. The landlords therefore claimed for the amount of rent thus lost. On the part of the corporation it was argued that no legal liability was attached to the official proceeding which had been conducted in the interests of the public health. It was urged that the statute provided that the local authority should compensate the owner only for any unnecessary damage caused to his house by disinfection, and that here no such unnecessary damage could be proved. Apart from these and other legal objections the corporation denied the accuracy of the plaintiffs' statements. The sheriff, after hearing the arguments on both sides, found for the corporation with expenses.

#### *The Education of Crippled Children.*

The School Board for Glasgow is making special provision in co-operation with the Queen Margaret Settlement Association for the education of crippled and infirm children unable to attend the ordinary schools. A special class-room has been secured and arrangements have been made to provide the children with food at a moderate charge. Private benevolence has supplied an ambulance wagon for conveying the children to and from the school, also a nurse to accompany the children and to remain with them during the day. The class at present numbers 28, and it is hoped that similar conditions can be established in various parts of the city. To accomplish this, however, the school board will require further financial assistance. Similar work carried on in London receives, it is said, a special grant, and the Glasgow board has determined to apply for a like provision.

#### *Bequests to Glasgow Hospitals.*

By the will of the late Mrs. Janet Rodger a sum of £8000 has been bequeathed to various local charities. The Royal Infirmary receives £3000, the Western Infirmary £1500, the Victoria Infirmary £1000, and Quarrier's Orphan Homes £1500. A gentleman, who prefers to remain anonymous, has presented to Greenock Infirmary an outfit of electrical apparatus, including the appliances required for the Finsen light treatment.

#### *University of St. Andrews.*

The installation of Lord Balfour of Burleigh as Chancellor of the University of St. Andrews took place on Oct. 24th in the presence of a large and brilliant assembly, which included not only the professors and many graduates of the university but also representatives from all the other Scottish seats of learning and a number of members of Parliament. After Lord Balfour had been formally installed he delivered an address in which he discussed the present position of university education. In the evening a reception was held which was attended by upwards of a thousand ladies and gentlemen. At a meeting of the University Court held on Oct. 27th a communication from the General Medical Council notifying the expiration of Professor J. B. Pettigrew's term of office as the representative of the university on the council was read and it was agreed that the appointment to the vacancy should be made at the next meeting of the court.

#### *University College, Dundee.*

An address on the Needs of the College by Dr. James Stuart, Lord Rector of the University of St. Andrews, was delivered on Oct. 25th at a large meeting of students and the general public. Dr. Stuart spoke on the relation of university education to the practical work of life, and asked that £50,000 should be raised in Dundee for the further development of the college. Lord Balfour of Burleigh, who

presided, said that it was essential to secure the foundation of a chair of German language and literature, a chair of geology, and a sub-division of the different branches of chemistry.

Oct. 29th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

### *The Prevalence of Cancer in Ireland.*

THE thirty-seventh annual report of the Registrar-General for Ireland, recently issued, contains some very interesting statistics as to the increased prevalence of cancer shown by the death-rate tables for Ireland, England, and Scotland. Referring to Ireland, the report contains a most valuable coloured map showing the distribution of the disease in that country between the years 1896 and 1900. From this it appears that the mortality varies widely in the different counties, being lowest in Kerry where the rate is 2.76 per 10,000, and highest in Armagh, where the number is 10.9 per 10,000. During the year 1900 no less than 2717 deaths were attributed to cancer, being an increase of more than 60 over the number quoted for the preceding 12 months. During the last 36 years the cancer death-rate has steadily grown from 2.6 to 6.2 per 10,000. It is not any consolation to know that the state of things in England and Scotland seems to be even worse, the mortality line in Great Britain having also risen greatly during the same period. In England the rate per 10,000 has advanced since 1864 from 3.8 to 8.4; in Scotland from 4.2 to 8.2. It is difficult to see where any statistical fallacy can come in to explain away or to modify the unsatisfactory import of these figures.

### *National Association for the Prevention of Consumption and other Forms of Tuberculosis.*

A meeting of the executive committee of the Dublin branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis was held on Oct. 26th at the house of the Royal College of Physicians of Ireland. The committee expressed great satisfaction with the course adopted by the Local Government Board in issuing the circular letters, leaflets, and posters of the association to all the sanitary authorities throughout Ireland.

### *Jervis-street Hospital, Dublin.*

The inaugural address at Jervis-street Hospital will be delivered on Nov. 6th by Mr. Austin Meldon, D.L., when Viscount Powerscourt will preside. The lecturer will deal with the increasing prevalence of cancer.

### *Medical Poor-law Appointments in Ireland.*

It is difficult for anyone living outside Ireland to understand how politics now enter into such an election as that of a dispensary medical officer of the Poor-law Board. Here are the facts, however, of a recent case. Newport dispensary district in co. Mayo became vacant and two candidates entered the field, Mr. P. J. Heneghan and Mr. A. Gill. The former in his application to the electors said that "he was a member of the United Irish League from the start, and whether elected or not to-day he intended to remain so. .... He was a gold medallist of St. Vincent's Hospital and a student of the Catholic University." At the election he was proposed and seconded, his nominator putting forward a motion "that we refuse the nomination for the Newport vacancy of any doctor who is not a member of the United Irish League." This proposal was lost by only a majority of three. Father O'Toole, a priest, although not a guardian, an elector, or a member of the board, was present and asked the proposer of Mr. Heneghan if he could deny that that gentleman was a student of a Queen's College (Galway) and if he did, said the reverend father, "I will prove it." He also added that "all the priests of the deanery held a private meeting to discuss the question of a medical man for Newport and they decided by a majority in favour of Mr. Gill." It is not necessary to add that Mr. Gill was elected. Mr. Heneghan is to be condemned for introducing politics into his application, and so is his nominator, who would boycott all medical men except those who are members of the United Irish League; but what are

we to think of a medical election when a non-elect who had no right to be present—a Catholic clergyman—entered the board-room and urged that a medical man should not be elected because he attended a Queen's College?

### *The Powers of the Local Government Board for Ireland.*

On Oct. 26th, in Monaghan, a large meeting of gentlemen representative of public bodies in Ulster was held in the board-room of the workhouse, when resolutions were carried proclaiming "entire want of confidence in the Local Government Board for Ireland as at present constituted." "We are satisfied," they added, "from our experience of the board that the administration of local government in this country will remain little better than a farce until the present board disappears and a new board is created, composed of men who have a thorough knowledge of Irish local affairs." Further, "Recognising the necessity which exists for the reconstruction of the Board so that a court of appeal, where equity would be the leading characteristic and where justice would be dispensed without regard to personal or political interest, would be established, we firmly assert that the governing body in Irish affairs should be so selected and constituted that the voice and aspirations of the people should not be subjected to the system of suppression which has hitherto prevailed." A ratepayers' association, it was also decided, should be formed to impede the arbitrary authority of the Local Government Board. There is no question that all over Ireland at present there is a revolt against the system of dictation from various central boards in Dublin.

### *The Armagh Guardians and the Nursing Question.*

The Local Government Board having written to the Armagh Guardians that they were prepared to grant an inquiry upon oath, to be held by a medical inspector, as to the manner in which the medical officer had discharged his duties, it was decided to refer the matter to a committee to report at the next meeting. This report was presented on Oct. 15th at the weekly meeting of the Armagh Board of Guardians. In this report it is said that the guardians were not aware that the medical officer had been accused of any failure in the discharge of his duties except that the Local Government Board in their letter of August 16th drew certain inferences unfavourable to him from the fact that on the date of the inspector's last visit to the workhouse the infirmary and fever hospital nurses were absent from duty for the purpose of taking air and exercise. The guardians did not deny that these nurses were absent and that there were no qualified persons in their places. For this the guardians took full and entire responsibility, as the medical officer on many occasions within the past 12 months had informed the guardians that he considered it necessary that the services of a second qualified nurse should be obtained for day duty in the infirmary. While agreeing with the medical officer that a second nurse was necessary the guardians were convinced that the appointment of an intelligent probationer nurse would be sufficient. The question of the absence of the fever hospital nurse had been fully and satisfactorily explained by the medical officer. As there could not possibly be any further facts to elicit, the committee did not see, therefore, what purpose an inquiry would serve. This report was unanimously adopted by the Armagh Guardians without discussion. The question now is—how the Local Government Board will act. There is also a discussion between the Armagh Board of Guardians and the Local Government Board on the nursing question, the guardians urging that their present staff with the addition of a probationer nurse would be sufficient for all ordinary requirements of the establishment while the Local Government Board demand the appointment of a qualified nurse and refuse to sanction the appointment of a probationer. A special meeting of the board has been called to take the whole matter into consideration.

Oct. 29th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

### *The French Association of Urology.*

THIS association, to which can belong every French specialist in diseases of the urinary organs, whether

physician or surgeon, opened its fifth annual session on Oct. 24th under the presidency of Professor Guyon. The subject for discussion was "Moveable Kidney, its Pathology and the Indications for Operative Interference."

#### *The Medical Treatment of Adenoid Vegetations.*

At a recent meeting of the Pediatric Society Dr. Lapeyre made a protest against the existing abuse of surgical measures in the treatment of adenoid vegetations during infancy and adolescence. He argued that in many cases it was quite possible, with patience, to obtain a cure by medical measures. The treatment consists in administering iodine in an alcoholic solution. At the beginning six drops are given three times a day and the dose is gradually increased until 40, 50, or even 60 drops are given per diem. Dr. Lapeyre had treated in this way 28 cases of adehoids, the patients varying from five to nine years of age. The treatment had been successful in every case and only very rarely were symptoms of iodism produced. Many of those present confirmed Dr. Lapeyre's statements and added that the internal administration of iodine, combined with local applications of menthol dissolved in oil, had in their hands given excellent results and had enabled the patient to do without surgical intervention.

#### *Chloral Hydrate as a Vesicant.*

At the meeting of the Academy of Medicine held on Oct. 8th M. Hallopeau read a paper upon some researches of M. Bonnet with regard to the vesicating properties of chloral hydrate. This drug vesicates very rapidly and is applied in the following manner. It is spread upon diachylon plaster in the proportion, according to M. Bonnet, of 3 grammes to a superficies of 12 by 15 centimetres. The plaster is then applied to the skin which has been previously anointed with almond oil or vaseline. In about 15 minutes the patient feels a sensation of warmth which increases gradually to burning. The plaster is then removed and the reddened part is covered with cottonwool. At the end of 20 or 30 minutes later a blister has risen and the patient goes to sleep—a fact which shows that with chloral hydrate, as well as with cantharides or any soluble substance, the vesicating agent is absorbed. The sleep produced by chloral hydrate is, however, less inconvenient than the cystitis produced by cantharides. It is as well to be careful all the same, particularly in the case of children, and not to make use of too large a surface of blistering plaster. The practical interest of these researches is much less than it would be had not blistering fallen into such disuse as it has. Blisters of a size capable of provoking cystitis are now hardly ever applied, and in fact they are only used of a very small size as revulsives in ophthalmology or in dermatology as in ringworm, and in such cases chloral hydrate has no particular advantage over cantharides.

#### *The Experimental Treatment of Tetanus by the Method of Bacelli.*

At the meeting of the Academy of Medicine held on Oct. 15th M. Josias laid before the gathering the results of some experimental work performed on goats. This was the method of treating tetanus to which Bacelli called the attention of the first Italian Congress of Medicine held in 1888. The method, which has often been used with success in Italy, has been but rarely tried in France. The tetanus toxin employed by M. Josias was of such a strength as to be fatal in doses of 12 centigrammes per kilogramme of body-weight of the goat. To three goats was administered a quantity of toxin of rather more than three cubic centimetres, and directly the first symptoms of tetanus appeared M. Josias gave the animals one or more subcutaneous injections of a solution of carbolic acid of a strength of 2 per cent. All the goats died, together with the control animal, at the end of four or five days, after having exhibited the usual course of tetanus. These experiments went to prove that carbolic acid exerts no action inimical to the development or course of tetanus, and, moreover, the control animal, which appeared much the more ill at the beginning, survived longer than those animals which had received the greatest quantity of carbolic acid. Although the goat can as a rule easily stand doses of from 0.40 to 0.50 of a gramme of pure carbolic acid M. Josias thought that possibly better results could be obtained with smaller doses and therefore he tried a second series of experiments. No better results were obtained. M. Josias concludes from these experiments that

the Bacelli method of treatment apparently has no favourable influence for the patient upon the evolution of tetanus once the symptoms have declared themselves, and this, too, even if the treatment is begun as soon as the earliest symptoms show themselves.

#### *An Artificial Larynx.*

At the meeting of the Academy of Medicine held on Oct. 22nd, M. Le Dentu showed a most interesting case—that of a patient upon whom M. Jaboulay had performed total extirpation of the larynx. Since the operation the patient had been wearing an artificial larynx by means of which he could speak fluently. At the invitation of M. Le Dentu the patient talked and answered questions, the quality and pitch being unvarying and somewhat high. The larynx is practically a box made in hardened caoutchouc, moulded in the position of the natural larynx and fitting on the top of the trachea. An indiarubber diaphragm with a slit in the middle acts as the glottis and vibrates like it. The tension being always the same it can, however, give but one note. But, as speech is performed by the tongue the palate, and the teeth, pronunciation, although all on one note, is perfect and quite intelligible. A metal grating shuts over the upper part of the larynx and prevents the intrusion of particles of solid food when the patient eats, while fluids are prevented from entering by a circular gutter which leads by a lateral tube into the œsophagus. The patient breathes through an anterior opening like a tracheotomy tube, which is found to be more convenient than breathing through the larynx, and when he wishes to talk he closes this opening with his finger.

Oct. 29th.

## SWITZERLAND.

(FROM OUR OWN CORRESPONDENT.)

#### *Swiss Universities.*

THE number of medical students is still on the increase, notwithstanding the unpromising forecast as regards lucrative work after the students have obtained their degrees. The total number of students in the summer term of 1901 amounted to 1328, as compared with 1201 for the preceding year, an increase of 9 per cent. The number of students registered at the five Universities is as follows:—Berne 364, Geneva 351, Zürich 305, Lausanne 170, and Bâle 138. The majority of the students are foreigners—viz., 227 male and 490 female students; the number of the latter is considerably on the increase notwithstanding the fact that German ladies can now pass their curriculum at German universities and are admitted to their usual medical examinations. The larger number must also be attributed to the increase of Russian lady students who cannot study in their own country, to the great facilities offered for study at the Swiss universities, and also to the good quality of the clinical instruction and the great opportunities for practical work. Small universities offer these facilities more than the larger schools at Vienna, Berlin, Munich, Leipsic, and Würzburg.

#### *Society for School Hygiene.*

In the education of the masses Switzerland has for many years been in the foremost rank and ever and anon deputies from foreign countries come to study the educational facilities offered gratuitously to everybody residing in Switzerland. So much attention has been paid to education and so much time has been demanded for mental efforts that the physique of the scholars has begun to be threatened. Medical men from time to time have raised a voice of warning, but they have remained practically unheard. Hence the desirability of forming a Society for School Hygiene in which medical men and school authorities could arrive at a mutual understanding with regard to the desired limits of education *versus* physical well-being. An appeal was immediately responded to by hundreds of medical men, professors, and schoolmasters; the Federal and local authorities also took a lively interest in the formation of this society, which was founded last year and now issues its second annual report. Limits of space forbid me from entering into details, but a *résumé* of the proceedings of the July annual meeting held at Lausanne will give an idea of the work that is performed,

in which the best men have joined to protect the physical status of our juvenile world. Professor Combe of Lausanne spoke on the Etiology of Scoliosis and Dr. Scholder of the Orthopædic Institute on the Therapeutics of Scoliosis. Dr. Wilhelm Schulthess of the Zürich Orthopædic Institute read a paper on the Connexion between the Posture whilst Writing and the Deviations of the Vertebral Column. Professor Otth of Lausanne reported on the Advantages of Perpendicular Writing in comparison to the usual Slanting Method of Handwriting. Mr. E. Heuzmann, Music Director at Berne, enlarged on the Hygiene of Singing and the Rational Methods of teaching Singing in Schools, whilst Dr. Schmutziger of Aarau spoke on the Desirability of the Schools beginning later both in Summer and Winter. There is no doubt that this society, which is receiving deserved support from all sides, will continue to do good work and thus the public weal will derive great and lasting benefit.

#### *Decrease of Mortality in Switzerland.*

The Federal Statistical Office at Berne has just published a report with regard to the ratio of mortality in Switzerland from 1871 to 1890. If one considers the mortality-rate in the last decade (1891-1900) the decrease is very striking. Arranged in six groups of five years each the ratio per 10,000 has decreased as follows: 23.8, 23.1, 21.3, 20.4, 19.6, and 17.8, or a decrease of one-fourth in 30 years. This decrease is almost universal, the Cantons of Grisons and Valais being the only exceptions, but it is differently distributed over the various parts of the country. I must mention that the surplus of births over deaths from 1871 to 1890 was 7.3 per cent.

Zürich, Oct. 28th.

## NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

#### *Institute for Medical Research.*

THIS institute, previously mentioned in THE LANCET,<sup>1</sup> has a board of managers made up as follows: Dr. William H. Welch, professor of pathology in the Johns Hopkins University, president; Dr. T. Mitchell Prudden, professor of pathology, Columbia University, vice-president; Dr. L. Emmet Holt, clinical professor of diseases of children, Columbia University, secretary; Dr. C. A. Herter, professor of pathological chemistry, University and Bellevue Medical College, treasurer; Dr. Theobald Smith, professor of comparative pathology, Harvard University; Dr. Simon Flexner, professor of pathology, University of Pennsylvania; Dr. H. M. Biggs, director of the laboratories of the Board of Health. In the summer months, aided by the institute, the milk-supply of the city was investigated and the study of the specific germ which causes outbreaks of dysentery in communities and in institutions was made. The work now taken up relates to phases of tuberculosis and typhoid fever, and other problems closely allied to the cause and prevention of other common diseases. Arrangements have been completed by which 19 persons will within about a month be working on research lines. These men, with one exception, will carry on their work in laboratories in Chicago, Philadelphia, Montreal, Ann Harbor, Boston, Baltimore, Middletown (Conn.), Cleveland, New Haven, the University of California, and in this city. The one exception is Dr. Marshall, a pupil of Dr. Welch of the Johns Hopkins University, the president of the board, who is to study in the laboratory of Professor Ehrlich, in Germany, some of the methods of the latter. Dr. Marshall received a Fellowship of the University and started for Germany some months ago. All the Fellowships and other appointments are for one year. Every person assisted from the funds of the institution is required to do a piece of original investigation and to submit a report of it to the directors of the institution for publication. Each person will receive credit for his work. Some of the communications received by the board since it began its work showed that in its endeavour to obtain tangible results it had sought as soon as possible to learn where capable men with an inclination to labour in research

lines and willing to go ahead with the appliances at hand were to be found. Two reports of much public interest will soon be made to the public by the board. One is the report of the investigation of the milk-supply of the city and the other is the study of the specific germ that causes outbreaks of dysentery. A preliminary report of the milk-supply investigation has been made; a fuller statement will soon be published. What was especially gratifying to the board was that most of the leading milk-dealers and many other persons connected with either the shipping or the transportation of milk to this city were found ready to coöperate in the task of improving the milk-supply. In this investigation three workers were employed; one attended to the inspection of dairies, the hygiene of cow stables, and the handling and transportation of milk, another devoted his time to the bacteriological work, and the third studied the milk-supply of institutions in relation to the health of inmates and also did a little work on similar lines in tenement houses.

#### *Extinction of Leprosy in the Hawaiian Islands.*

Superintendent Reynolds of the colony of lepers states that leprosy is being slowly, but none the less surely, eradicated in the Hawaiian Islands. Five years ago there were over 1300 inmates in the leper settlement on the Island of Molokai; when the annual visit was made a few days ago there were only 900. This is due, not so much to the scientific treatment of the disease, but to the fact that the native race is gradually dying out. Of those who are now inmates of the colony all but 50 are native Hawaiians; there are 15 whites and 30 Chinese. Last year just 100 lepers were sent to the island, but only 50 have been sent in the last nine months. In the biennial period ending December, 1900, directly after the islands had been annexed, over 500 were transferred to the settlement. This was due to the fact that the matter was taken from the hands of the party formerly in charge of such cases, and those afflicted with this disease were hurriedly sent to the place of segregation. Heretofore many such persons have remained in Honolulu through political influence.

#### *Large Increase of Fever in New York.*

The Department of Charities reports that the wards of all the city hospitals connected with the department are filled and that this condition is due to the large number of typhoid fever and malarial patients. On inquiry it was found that there were no vacant beds for new medical cases in most of the large hospitals of the city. In all of them there are certain wards for typhoid fever cases and when these are filled beds in others must be found where there is no danger of any other patient in the hospital catching the disease from those already suffering from it. To find such accommodation quickly is often a perplexing matter. Usually the beds in the surgical wards are brought closer together and the convalescing in-patients are transferred from the convalescents' wards to the surgical wards because they are better able to withstand being removed than any other patients. This expedient has been adopted in many of the city hospitals lately. The officials of the Charities Department think that the increase in fever in the city is due to the opening of the streets for the rapid transit tunnel and for other public works which require the tearing up of the streets.

#### *An International Health Service.*

The members of the United States delegation to the International Conference of American States in Mexico have issued a request for suggestions relating to the possible establishment of an international health service. The proposition is to unite all the American Republics in the prosecution of common measures for the control and final extermination of pestilential diseases, especially of yellow fever. A practicable plan for securing international coöperation for this purpose has been submitted by the Surgeon-General of the Marine Hospital Service and will doubtless form the basis of discussion. This plan is briefly as follows. An International Sanitary Commission is to be created, to consist of five members, no two of whom shall be residents or citizens of the same Republic. They shall be appointed by the Bureau of American Republics and shall serve one year, when they may be reappointed or new members may be selected to succeed them. Of these five members one shall be a diplomat, one learned in the law, one a physician and sanitarian, one a sanitary engineer, and

<sup>1</sup> THE LANCET, June 22nd, 1901, p. 1801.

one a commercial representative. To these five members shall be added, temporarily, two others to represent the national government in whose domain is located the seaport city or town to be investigated or to be subject to sanitary requirements. These two members shall be appointed by the President of their Republic and shall serve only in that Republic. The duties of the International Commission shall be, first, an inquiry of a commercial character to determine upon and to prepare a list of the seaport cities or towns necessary to be visited with a view to sanitary improvement; secondly, to visit the said cities or towns in order of greatest commercial necessity and with the two additional commissioners to make a thorough sanitary inspection of the port and city or town and formally to report upon the sanitary measures deemed necessary, keeping within the limits of this convention; thirdly, this report shall be in duplicate signed by the seven members of the commission. One copy shall without delay be transmitted to the President of the Republic within whose domain the city or town inspected is located and the other copy shall be sent for file to the Bureau of American Republics. Immediately after the receipt of this report it shall be the duty of the President to whom it is sent to take such action as lies within his power, either through national, State, or municipal authority, to put into effect the measures recommended by the commission or other effective measures satisfactory to a majority of the commission of seven and so certified in writing. If one year from the date of the receipt of the report of the commission by the Bureau of American Republics work has not actually been begun, or if plans have not been prepared and contracts made, it shall be the duty of the Bureau of American Republics to notify each of the nations entering into this convention, and each of the said nations obligates itself thereupon immediately to impose upon vessels arriving from the said ports additional tonnage tax and duties upon specified imports.

#### *The Study of Yellow Fever.*

The Supervising Surgeon-General of the United States Marine Hospital Service has prepared and submitted to the Secretary of the Treasury a plan for the organisation of an association whose object it will be to collect all facts concerning yellow fever, to designate the specific lines of investigation to be made and to make the investigations. The members of the institute are to be the medical officers of the United States Marine Hospital Service and others especially qualified. They will be assigned for duty to one of four sections, each section having a special list of topics for consideration. Each of the four sections will be under the direction of one of the medical officers on duty in this bureau, and the said bureau officers, with the director of the hygienic laboratory, the Surgeon-General, and a secretary will constitute an executive board which is to have general oversight of all the investigations. This furnishes a convenient method of administration, as the machinery of the institute will be readily worked in the Bureau, while the actual labour will be carried on by members in various places. The stimulus to the members will be not only the scientific interest in the subject, but the publication of their contributions in the shape of bulletins as often as it seems advisable to the board, while the department will find the funds necessary for incidental expenses. In these circumstances it is believed that the organisation will meet with a degree of success warranting its existence.

Oct. 18th.

## Obituary.

JOHN HALLILAY, L.K.Q.C.P. IREL., M.R.C.S. ENG.

By the death of Mr. J. Hallilay, which occurred at his residence, Moorland-road, Leeds, on Oct. 21st, the medical profession of the city lose one of their oldest and most esteemed *confrères*, while a wide circle of patients deplore the removal of a trusted medical adviser and friend. Mr. Hallilay was born at Wakefield and entering Guy's Hospital attended the lectures of Bransby Cooper and Thomas Addison, who first described Addison's disease.

Mr. Hallilay commenced practice in Leeds nearly half a century ago, and until a paralytic seizure compelled him to retire was a familiar figure in the life of the city. As a practitioner he was eminently safe, his judgment was sound, while his diagnosis and treatment of a case, as might be supposed from the celebrated teachers he followed, were marked by deliberation and care. Mr. Hallilay was a Churchman and in politics was a staunch Conservative. He was also an enthusiastic Freemason. For many years he acted as one of the stewards of the West Riding Medical Benevolent Fund. He was twice married and leaves a widow and three sons, two of whom follow their father's vocation. Mr. Hallilay's character was that of a simple, unostentatious gentleman, while his kindly, sympathetic, and generous disposition rendered him beloved by all who knew him.

## Medical News.

UNIVERSITY OF CAMBRIDGE.—At the Examination in Sanitary Science held in October the following candidates satisfied the examiners in both parts of the examination for the Diploma in Public Health:—

John James Buchan, Frank Marsden Burnett, Archibald Fawns Cameron, Harold Selwyn Capper, John Morton Sim Coutts, John Crawford, Frederick Dittmar, John Edward Dowling, Duncan Forbes, Grace Haxton Giffen, Kenneth Weldon Goadby, James Doig McCrindle, John Watterson Miller, William Paul Rodrigo, Parash Ranjan Roy, Harold Robert Dacre Spitta, Hubert John Starling, John Stoddart, Blackworth Stuart, Alfred Jefferis Turner, Douglas Percival Watson, and William Wright.

At the meeting of the Plymouth School Board held on Oct. 22nd Dr. W. Cheyne Wilson was unanimously elected to fill a vacancy on the Plymouth School Board.

THE LATE MR. JOHN GRIFFITH.—The *St. Mary's Hospital Gazette* for October publishes as a supplement a very good portrait of the late Mr. John Griffith, the ophthalmological assistant to the hospital, whose untimely death we recorded with regret in our columns recently.

PRESENTATIONS.—At a dinner held in Bristol on Oct. 18th the members of the Netham branch of the St. John Ambulance Association presented Dr. James Young with a silver cigarette case, suitably inscribed, as a mark of appreciation for his services as honorary lecturer of the class.—Mr. E. B. Fuller, M.B., Edin., late medical officer of health of Cape Town, was recently presented by the staff of the sanitary department of Cape Town with a clock in recognition of his long connexion with the city and of his unremitting work during the recent plague epidemic.

EPSOM COLLEGE.—The enlarged laboratory and lecture theatre, the cost of the extension of which has been partly defrayed out of a legacy of £500 from the late Mr. Maddock, a master at the College, were formally opened on Saturday, Oct. 19th, when there was a large gathering of friends of the College. Amongst those present were Sir W. S. Church, Bart., President of the Royal College of Physicians of London, Dr. Holman (treasurer), the Rev. E. W. Northey, Mr. Christopher Heath, Mr. H. M. Macpherson, Mr. E. K. Robinson, Dr. M. Baines, Dr. S. Felce, Dr. J. H. Galton, Mr. H. W. Kiallmark, Dr. F. Needham, Mr. Bilton Pollard, Mr. C. L. Smiles, Mr. H. E. Vardon, and Colonel Gordon Watson. Before the proceedings commenced Dr. Holman, who has taken the keenest interest in the extensions, entertained a large party at luncheon at the "Spread Eagle," after which his guests were driven to the College to inspect the new lower school, the enlarged chapel, and the newly-fitted laboratory. After a few words from the head-master in the big school-room the visitors adjourned to the new lecture theatre, where the deputy chairman of the council, the Rev. E. W. Northey, in declaring the buildings to be open, observed that the extensions would not only be of the greatest possible use to the head-master but would also be a memorial to Mr. Maddock. He drew attention to the difference between the teaching of science in these days as compared with the instruction given in his younger days. The head-master referred to the great

need there had been for the additions which had just been made and thanked the council in the name of the school for the well-equipped laboratory which contained numberless devices and inventions for saving time and trouble. Mr. Robinson, the late Mr. Maddock's executor, expressed his pleasure that the council had devoted the legacy from his friend to so useful a purpose. The visitors then went over the laboratory and inspected the fittings, apparatus, benches, &c., general satisfaction being expressed with the increased accommodation and means provided for scientific teaching.

**THE LATE MR. B. C. KENDALL.**—Mr. Bernard Charles Kendall died at his residence, Helston, Cornwall, on Oct. 24th from acute laryngitis, after a short illness, in his thirty-sixth year. He received his medical education at the Bristol Medical School and Guy's Hospital, and became qualified as L.R.C.P. Lond. and M.R.C.S. Eng. in 1892. After holding a resident appointment at the Bristol Royal Infirmary he commenced practice at Helston, and three years ago he was returned at the head of the poll for the Helston Town Council.

**LITERARY INTELLIGENCE.**—Messrs. Charles Griffin and Co. have arranged for the publication of "The Work of the Digestive Glands," by Professor Pawlow, of St. Petersburg, translated into English by W. H. Thompson, M.D., M.Ch. R.U.I., F.R.C.S. Eng., Dunville Professor of Physiology, Queen's College, Belfast, and Examiner in Physiology, Royal College of Surgeons of England and Royal University, Ireland. Professor Pawlow's researches were recently awarded the Nobel prize of £11,000. This edition, which will include the notes of the most recent researches of Professor Pawlow and will constitute the sole authorised edition for England and America, is ready for immediate issue.

**BORIC ACID IN BUTTER.**—Messrs. Pearks, Gunston, and Tee, grocers, having appealed against a fine of £50 inflicted for selling butter containing boric acid the case was heard at Folkestone Quarter Sessions before the Recorder, Mr. Lewis Coward. The only witness called was Dr. M. K. Robinson, medical officer of health of the East Kent combined district, who was of opinion that boric acid taken constantly in small quantities was prejudicial to health. In the cross-examination counsel for the appellants made use of the fact that boric acid was alleged to be harmless by Professor Liebreich of Berlin University, Professor Chittenden of Yale University, and Professor Tunnicliffe of King's College, London. The Recorder, having been informed that these authorities had not been quoted before the justices, thereupon quashed the conviction.

**FREEMASONRY.**—*The Middlesex Hospital Lodge, No. 2343.*—A meeting of this lodge was held on Oct. 17th at Freemasons' Hall, W. Bro. T. G. A. Burns, M.R.C.S. Eng., being in the chair. Bros. Baldwin, Milburn, Dutton, Noel, and Mulvey were admitted to the second degree. Mr. D. B. Balding, F.R.C.S. Eng., Mr. Campbell Thomson, M.D. Lond., and Mr. Peter Thompson, F.R.C.S., were initiated into Freemasonry, and Bros. Lionel Litchfield Preston, M.B., B.S. Durh., M.R.C.S. Eng., and Philip Barnett Bentlif, M.R.C.S. Eng., were unanimously elected Joining Members of the lodge. The brethren and guests afterwards dined together. *The Cavendish Lodge, No. 2620.*—The Cavendish Lodge met on Oct. 16th, at the Royal Palace Hotel, Kensington. Dr. J. Allan (Chislehurst) and Mr. Chaldecott (London) were admitted into Freemasonry by the W. M. (Bro. Bidwell), and afterwards the Installation ceremony took place, Bro. Percy Dunn, being the W.M. for the ensuing year. The ceremony was performed by W. Bro. Bidwell. A Past Master's jewel was then presented to W. Bro. Bidwell. The W.M. next invested his officers, as follows: I.P.M., W. Bro. Bidwell; S.W., Bro. Menzies; J.W., Bro. Cathcart; Treasurer, Bro. Gunton Alderton; Secretary, W. Bro. Mortimer; Organist, Bro. W. Nicholl; S.D., Bro. Tuke; J.D., Bro. Handfield Jones; I.G., Bro. McCann; Steward, Bro. Victor Corbould. The brethren afterwards dined together, the members and guests present exceeding 40 in number.

**BEQUESTS AND DONATIONS TO HOSPITALS.**—By the will of Mr. Thomas Edward Wheatley of Norham-lodge, Oxford, £500 each are left to the Manchester Royal Infirmary and St. Mary's Hospital, Manchester.—By his will

Mr. John Hatchell of Fortifield House, Ferenure, Dublin, bequeathed £500 each to the King's Hospital, the Meath Hospital and County Dublin Infirmary, and the Dublin Royal Hospital for Incurables, £100 each to the Adelaide Hospital and the Fever Hospital, and £50 each to the Harold's Cross Refuge for the Dying, the Children's Hospital, and the Hospital for Consumption.—By the will of Mr. James Plumbridge of Glen Lynn, South Croydon, the Croydon General Hospital receives £200 and the reversion of a further sum of £200, and the Miller Hospital at Greenwich £200.—By the will of Miss Isabella Manbey of Brighton personalty of the net value of £27,321 14s. 6d. is bequeathed in trust for the Sussex County Hospital, the Brighton and Hove Dispensary, and three other institutions. From the residue of the estate a further sum of £1000 is left to the Sussex County Hospital.—The Paddington-green Children's Hospital has received from its chairman and treasurer, Mr. George Hanbury, a donation of £100 for current expenses and £200 towards the purchase money required for the new convalescent home, Fair View, Slough—namely, £1200.—The Royal Free Hospital has received a donation of £1000 from George Courtauld to endow a bed in memory of his daughter, the late Miss Louise Courtauld.—The High Sheriff of Gloucester (Mr. J. Bruton) has given £50 to the Gloucester Infirmary in lieu of the customary banquet to members of the corporation.

### BOOKS, ETC., RECEIVED.

ALLEN, GEORGE, 156, Charing-cross-road, W.C.

An Idler's Calendar: Open-air Sketches and Studies. By G. L. Apperson. Price 3s. 6d. net.

Society Snapshots taken at Random on a Trip through the World. By Cotsford Dick, author of "The Model, and other Verses," "The Ways of the World" (Vers de Société). Price 6s.

CHURCHILL, J. & A., 7, Great Marlborough-street, W.

A Short Practice of Midwifery, embodying the Treatment Adopted in the Rotunda Hospital, Dublin. By Henry Jellett, B.A., M.D., B.Ch., B.A.O. Dublin Univ., F.R.C.P. Irel., L.M. With a Preface by W. J. Smyly, M.D., T.C.D., F.R.C.P. Irel. Third edition, revised and enlarged. Price 8s. 6d.

The Pharmacopœia of the Hospital for Diseases of the Throat, Nose, and Ear, Golden-square. Edited by H. Lambert Lack, M.D. Lond., and Charles A. Parker, F.R.C.S. Edin. Sixth edition. Price 2s. 6d.

DEUTICKE, FRANZ, Leipzig and Vienna.

Die Syringomyelie. A Monograph by Dr. Herman Schlesinger, Privat-docent, Neurologisches Institut, Vienna University. Second revised and enlarged edition. Price M. 17.

G. P. PUTNAM'S SONS, New York and London.

The Care of the Consumptive. A Consideration of the Scientific Use of Natural Therapeutic Agencies in the Prevention and Cure of Consumption; together with a Chapter on Colorado as a Resort for Invalids. By Charles Fox Gardiner, M.D., of New York. Price not stated.

HOEPLI, ULRICO, Milan.

L'Epilessia. Etiologia, Patogenesi, Cura. By Dr. Paolo Pini. Price L. 2.50.

Chimica Clinica. By Dr. Raffaele Supino of Pisa. Price L. 2.

KEGAN PAUL, TRENCH, TRUBNER, AND Co., Limited, Charing-cross-road, W.C.

Proceedings of the Society for Psychical Research, Part XLI., vol. xvi. October, 1891. Price 10s.

KIMPTON, HENRY, 13, Farnival-street, Holborn, E.C.

A Text-book on Practical Obstetrics. By Egbert H. Grandin, M.D., Gynecologist to the Columbus Hospital, &c., with the collaboration of George W. Jarman, M.D., Instructor in Gynecology in the Medical Department of the Columbia University, &c. Third edition, revised and enlarged. Price 18s.

Clinical Pathology of the Blood. By James Ewing, A.M., M.D., Professor of Pathology in Cornell University Medical College, New York City. Price 18s.

Diseases of the Intestines. By Dr. I. Boas, Specialist for Gastro-intestinal Diseases in Berlin. Authorised translation from the first German edition, with special additions by Seymour Basch, M.D., New York City. Price 21s.

Diseases of the Nose and Throat. By J. Price-Brown, M.B., L.R.C.P.E., Member of the College of Physicians and Surgeons, Ontario, &c. Price 16s.

**The Care and Feeding of Children: A Catechism for the Use of Mothers and Children's Nurses.** By L. Emmett Holt, M.D., Professor of Diseases of Children in the New York Polyclinic, &c. Second edition, revised and enlarged. Price 2s. 6d.

**Voice-Building and Tone-Placing, showing a New Method of Relieving Injured Vocal Cords by Tone Exercises.** By H. Holbrook Curtis, Ph.B., M.D., Fellow of the New York Academy of Medicine, &c. Price 7s. 6d.

**The Principles and Practice of Medicine. Designed for the Use of Practitioners and Students of Medicine.** By William Osler, M.D., F.R.S., F.R.C.P. Lond., &c. Fourth edition. Price 18s. net.

**Pharmacopœia: a Commentary on the British Pharmacopœia, 1898.** By Edmund White, B.Sc. Lond., F.I.C., Pharmacist to St. Thomas's Hospital, London, and John Humphrey. Price 14s. net.

LONGMANS, GREEN, AND CO., 39, PATERNOSTER-ROW, E.C.

**Intuitive Suggestion: a New Theory of the Evolution of Mind.** By J. W. Thomas, F.I.C., F.C.S., Author of "Spiritual Law in the Natural World," &c. Price 3s. 6d. net.

**Elementary Practical Hygiene (Section I.).** By William S. Furneaux, author of "Human Physiology," "Elementary Chemistry," &c. Price 2s. 6d.

MACMILLAN AND CO., LIMITED, LONDON AND NEW YORK.

**Columbia University Biological Series VI.: the Protozoa.** By Gary N. Calkins, Ph.D., Instructor in Zoology, Columbia University. Edited by Henry Fairfield Osborn, Sc.D., Princeton, and Edmund B. Wilson, Ph.D., J.H.U. Price 12s. 6d. net.

MAULOINE, A., 23, 25, rue de l'Ecole de Médecine, Paris.

**A Travers la Médecine (21 Short Papers on Various Matters).** By Dr. Henri Guimball. Price not stated.

**La Faiblesse Irritative Sexuelle. Etude Psycho-Physiologico-Médicale.** By V. Renza. Price 2fr. 50 c.

PATRIDGE, S.W. AND CO., 8 AND 9, PATERNOSTER-ROW, E.C.

**Surgeons and their Wonderful Discoveries.** By F. M. Holmes, author of "Chemists and their Wonders," &c. Price 1s. 6d.

REBMAN, LIMITED, 129, SHAFTESBURY-AVENUE, W.C.

**Diseases of the Intestines, their Special Pathology, Diagnosis, and Treatment.** By John C. Hemmeter, M.D., Philos. D., Professor in the Medical Department of the University of Maryland, &c. In two volumes. Price 50s. net.

**Diseases of the Digestive Organs in Infancy and Childhood, with Chapters on the Diet and General Management of Children, and Massage in Pediatrics.** By Louis Starr, M.D., late Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania, &c. Third edition, rewritten and enlarged. Price 12s. 6d. net.

RENSHAW, HENRY, 356, STRAND, W.C.

**A Dictionary of Treatment, or Therapeutic Index, including Medical and Surgical Therapeutics.** By William Whittle, M.A., M.D.R.U.I. Fourth edition. Price 16s.

SAMPSON LOW, MARSTON, AND CO., LIMITED, ST. DUNSTON'S HOUSE, FETTER-LANE, E.C.

**Madeira and the Canary Islands, with the Azores: a Practical and Complete Guide for the Use of Invalids and Tourists.** By A. Samler Brown. Sixth, revised, edition. Price 2s. 6d.

SAUNDERS, W. B., AND CO., PHILADELPHIA AND LONDON.

**A Laboratory Course in Bacteriology. For the use of Medical, Agricultural, and Industrial Students.** By Frederic P. Gorham, A.M., Associate Professor of Biology, Brown University, &c. Price 5s.

**Atlas and Epitome of Special Pathologic Histology.** By Docent Dr. Hermann Dürk of Munich. Authorised translation from the German. Edited by Ludvig Hektoen, M.D., Professor of Pathology, Rush Medical College, Chicago. In two parts. Part II. Price 13s. net.

**Dose-book and Manual of Prescription-writing.** By E. Q. Thornton, M.D., Ph.G., Demonstrator of Therapeutics, Jefferson Medical College of Philadelphia. Second edition, revised and enlarged. Price 6s. 6d.

**Nervous and Mental Diseases.** By Archibald Church, M.D., of Chicago, and Frederick Peterson, M.D., President of the State Commission in Lunacy, New York, &c. Third edition, thoroughly revised. Price 21s.

**The Principles of Hygiene: A Practical Manual for Students, Physicians, and Health Officers.** By D. H. Bergey, A.M., M.D., first assistant, Laboratory of Hygiene, University of Pennsylvania. Price not stated.

UNIVERSITY PRESS OF LIVERPOOL.

**The Thompson Yates Laboratories Report, Vol. iv., Part I., 1901.** Edited by Rubert Boyce, C. S. Sherrington, and Others. Price 7s. 6d. net.

**Report of the Malaria Expedition to Nigeria of the Liverpool School of Tropical Medicine and Medical Parasitology. Part II.: Filariasis.** By H. E. Annett, M.D., D.P.H. Vict., J. Everett Dutton, M.B., B.Ch. Vict., and J. H. Elliott, M.D. Tor. Price 10s. 6d. net.

UNWIN, T. FISHER, PATERNOSTER-SQUARE, E.C.

**Alcoholism: a Study in Heredity.** By G. Archdall Reid, M.B., C.M., F.R.S. Edin. Price 6s.

VAIL, J. H., AND CO., NEW YORK.

**Peru History of Coca, "The Divine Plant" of the Incas.** By W. Golden Mortimer, M.D. Price \$5.

WARNE, FREDERICK, AND CO., LONDON AND NEW YORK.

**Diet in Relation to Age and Activity, with Hints concerning Habits Conducive to Longevity.** By Sir Henry Thompson, Bart., F.R.C.S. Eng., M.B. Lond., &c. Revised and enlarged edition. Price 2s. 6d.

WHITE, FLORENCE, 34, 35, AND 36, FLEET-STREET, E.C.

**Small-pox: its Prevention, Treatment, and History.** Price 6d.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ARMOUR, T. R. W., M.B., has been appointed House Surgeon to the Hospital for Women, Liverpool, vice W. J. Jones, M.B., M.R.C.S., resigned.

CALTHROP, GORDON, M.B., B.C. Camb., has been appointed Certifying Surgeon under the Factory Acts to the Wells District of Norfolk.

DONALD, F., M.R.C.S. Eng., L.S.A., has been re-appointed Medical Officer of Health for the Ham Urban District.

FALCONER, DONALD GORDON, M.B., M.S. Aberd., has been appointed Certifying Surgeon under the Factory Acts for the Foyers District of Inverness-shire.

FARQUHARSON, A. C., M.B., M.S. Glasg., has been appointed Medical Officer of Health for the Auckland Rural District.

GARDINER, PETER, M.D., C.M. Glasg., D.P.H. Lond., has been appointed Honorary Medical Officer to the Camborne Dispensary.

GREY, T. CAMPBELL, F.R.C.S. Eng., L.R.C.P. Lond., has been appointed Honorary Medical Officer to the Camborne Dispensary.

HAWTHORNE, C. O., M.D., M.R.C.P., has been appointed Assistant Physician to the North-West London Hospital.

HUNT, E. L., has been appointed Certifying Surgeon under the Factory Acts for the Sherston District of Wilts.

LANCASHIRE, GEORGE H., M.R.C.S. Eng., L.R.C.P. Lond., M.D. Brux., has been appointed Assistant Physician to the Manchester and Salford Hospital for Skin Diseases.

MORRIS, T. H. P., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Acts for the Halesworth District of Suffolk.

SLADEN, REGINALD J. LAMBERT, M.R.C.S., L.R.C.P. Lond., has been appointed Senior Resident Surgeon to the Royal Sea Bathing Hospital, Margate.

SPENCE, JOHN W. L., L.R.C.P., L.R.C.S. Edin., has been appointed Clinical Assistant to the Electrical Department of the Royal Infirmary, Edinburgh.

THOMAS, J. TELFER, L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Medical Officer to the Camborne (Cornwall) Dispensary.

WHITTINGTON, C. E., L.S.A., M.R.C.S., has been appointed Certifying Surgeon under the Factory Acts for the Tuxford District of Notts.

WILLEY, FLORENCE ELIZABETH, M.B., B.Sc. Lond., has been appointed Assistant House Surgeon to the Free Hospital, Gray's Inn-road.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

**BARNWOOD HOUSE HOSPITAL FOR THE INSANE, Gloucester.**—Junior Assistant Medical Officer. Salary £150 per annum, rising to £170.

**BIRKENHEAD AND WIRRAL CHILDREN'S HOSPITAL, Woodchurch-road, Birkenhead.**—House Surgeon. Salary £100 per annum, with board, residence, and laundry.

**BRACEBRIDGE ASYLUM, near Lincoln.**—Junior Assistant Medical Officer, unmarried. Salary £125 per annum, with apartments, board, attendance, &c.

**BRADFELD UNION.**—Medical Officer and Public Vaccinator. Salary £53, and fees amounting approximately to £35 per annum. Also Medical Officer for the Workhouse, Bradfield. Salary £80 per annum.

- BRENTFORD UNION.**—Assistant Medical Superintendent of the Infirmary and Assistant Medical Officer of the Workhouse and Schools at Isleworth. Salary £100 per annum, with apartments, rations, washing, &c.
- CENTRAL LONDON OPHTHALMIC HOSPITAL,** Gray's Inn-road, W.C.—House Surgeon. Salary at rate of £50 per annum, with board and residence.
- CHelsea HOSPITAL FOR WOMEN,** Fulham-road, S.W.—Registrar. Honorarium 20 guineas per annum.
- COUNTY ASYLUM,** Mickloover, Derby.—Senior Assistant Medical Officer. Salary £130, rising to £150 per annum, with apartments, board, washing, and attendance. Also Junior Assistant Medical Officer. Salary £110, rising to £130 per annum, with apartments, board, washing, and attendance.
- COUNTY ASYLUM,** Lancaster.—Assistant Medical Officer, unmarried. Salary £150, increasing to £200, and on promotion to £250, with apartments, board, washing, and attendance.
- COUNTY ASYLUM,** Prestwich, Manchester.—Junior Assistant Medical Officer, unmarried. Salary £150, increasing to £250, with board, apartments, and washing.
- DOVER HOSPITAL.**—House Surgeon, unmarried. Salary £100 a year, with board, lodging, and washing.
- ENAY, ORKNEY.**—Medical Officer. Salary £50 per annum, with other emoluments.
- ESSEX COUNTY ASYLUM,** Brentwood.—Fourth Assistant Medical Officer. Salary £150 per annum.
- GREAT NORTHERN CENTRAL HOSPITAL.**—Surgeon to Out-patients.
- GRIMSBY AND DISTRICT HOSPITAL.**—Resident House Surgeon. Salary £80 per annum, with board, lodging, and washing.
- INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.**—Junior House Surgeon. Salary £75 per annum, with residence, board, and washing.
- ITALIAN HOSPITAL,** Queen-square, London, W.C.—Honorary Surgeon.
- LINCOLN COUNTY HOSPITAL.**—Senior House Surgeon, unmarried. Salary £100 per annum, with board, lodging, and washing.
- LONDON HOSPITAL,** Whitechapel, E.—Aural Surgeon.
- LONDON HOSPITAL MEDICAL COLLEGE.**—Assistant to the Bacteriologist and Lecturer on Bacteriology.
- LONDON TEMPERANCE HOSPITAL,** N.W.—Medical Officer for six months. Honorarium at the rate of 50 guineas per annum, with board and residence.
- RURAL DISTRICTS IN THE COUNTIES OF LEICESTER, RUTLAND, AND WARWICK.**—Medical Officer of Health. Salary £550 per annum (inclusive of travelling and other expenses).
- SALISBURY INFIRMARY.**—House Physician under 30 years of age and unmarried. Salary £75 per annum, with board, lodging, and washing.
- SOMERSET AND BATH LUNATIC ASYLUM,** Cotford, Taunton.—Assistant Medical Officer, single. Salary £150 per annum, with apartments, board, and washing.
- STIRLING DISTRICT ASYLUM,** Larbert, N.B.—Assistant Medical Officer. Salary £150, with board, laundry, &c.
- ST MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM,** City-road, London, E.C.—Honorary Physician.
- WEST RIDING ASYLUM,** Wakefield.—Locum Tenens for three months. Salary £3 3s. per week, with apartments and board.

The Chief Inspector of Factories, Home Office, London, S.W., gives notice under the Factory Acts of vacancies for Certifying Surgeons at West Drayton, in the county of Middlesex; at Messrs. Curtis and Harvey's Powder Mills, at Hounslow and East Bedford, in the county of Middlesex; at Rainham, in the county of Essex; and at Kirkintilloch, in the county of Dumbarton.

## Births, Marriages, and Deaths.

### BIRTHS.

- PHILLIPS.**—On Oct. 24th, at Bedford-place, Sidmouth, the wife of F. Addison Phillips, M.R.C.S., L.R.C.P. Lond., of a son.
- WILLIAMS.**—On Oct. 29th, at Rotorua, Harrow-on-the-Hill, the wife of Dr. A. H. Williams, of a son. New Zealand papers please copy.
- WOODHEAD.**—On the 27th inst., at Chisholme, Sale, Cheshire, to Dr. and Mrs. H. Miall Woodhead, a daughter.

### MARRIAGE.

- ANDERSON—RICHARDSON.**—At Holy Trinity Church, Pittlochy, on the 23rd inst., by the Very Rev. the Dean of Brechin, assisted by the Rev. Canon Bowstead, Kilmavonaig, John Anderson, M.B., C.M. Edin., to Catherine Mary, only daughter of Captain and Mrs. Richardson, Castle Beigh. No cards.

### DEATHS.

- BUTLER.**—On Oct. 27th, at Millom, Cumberland, Leonora, youngest daughter of Percy Butler and Mary Stoney, aged 20 years.
- NEUBOLT.**—Oct. 28th, at 42, Catherine-street, Liverpool, in her 37th year, Mary Jane, wife of George Neubolt, M.B., F.R.C.S.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## Notes, Short Comments, and Answers to Correspondents.

### THE CONSEQUENCES OF AN ERRONEOUS DIAGNOSIS.

ON Oct. 23rd Mr. R. B. Rodd, the coroner for the county of Devonshire, resumed an inquest into the circumstances connected with the death of Francis Evans of Quarry-street, Stonehouse. At the previous hearing the daughter of the deceased stated that on August 17th her father had stumbled while crossing the room and had fallen against the dresser, hurting his side. Mr. W. H. Waterfield was called in, and, according to the daughter, stated that Evans was suffering from a cold in the kidneys, pleurisy, and inflammation. Three weeks later Mr. Leah was called in; he stated in evidence that on Sept. 1st he found deceased suffering from a fractured rib on the right side. Bandages were applied and the patient got better. On Oct. 5th Mr. Leah was again called in and found Evans suffering from congestion of the lungs. Death took place "on Saturday"—we presume Oct. 12th—from pneumonia, accelerated by the fractured rib. The inquiry was then adjourned to enable a post-mortem examination to be made and also to give Mr. Waterfield the chance of making a statement. At the adjourned inquest Mr. Leah said that he had made an examination of the body in the presence of Mr. Waterfield. There was no fracture of the ribs. There were pleurisy with adhesions and pneumonia of the right lung. There was also gangrene of the right lung. The kidneys were waterlogged, probably due to septic poisoning from the pulmonary gangrene. There was evidence of bruising over the fifth, sixth, and seventh ribs. Mr. Waterfield deposed that deceased came to him on Saturday, August 24th. He was suffering from pneumonia of both lungs and pleurisy of the left lung in addition. Witness told him to go home, to go to bed, and to be well poulticed. He was not to leave his bed until he got better. Witness asked if he should call the following day, but deceased said "No." Witness called on August 26th and 28th and found deceased better. He did not see him professionally again, but later witness saw deceased walking about in the street. Neither deceased nor his daughter said anything about any injury. Witness was present at the post-mortem examination. There was no fracture of the ribs or any sign of such, but there were pleuritic adhesions over three of the ribs. There were signs of syphilis both internal and external. There were no signs of any external injury over the ribs. In his opinion deceased died from pneumonia, pleurisy, and the general condition due to drink, syphilis, and exposure. The jury brought in a verdict of "Death from natural causes," adding as a rider, "We are of opinion that the inquiry was quite unnecessary and was brought about by an error of judgment on the part of Mr. Leah, and we exonerate Mr. Waterfield from all blame." With this verdict we quite agree. Mr. Leah obviously made a mistake in his diagnosis—a mistake, however, which had no influence on the case either for good or for evil. But according to the question of a jurymen at the inquiry on Oct. 23rd Mr. Leah appears at the former inquiry to have attributed negligence to Mr. Waterfield and to have implied that his failure to diagnose the fracture (which did not exist) had imperilled Evans's chance of getting well. It is better, perhaps, to say that a patient has a fractured rib when he has not than to make the converse error; but to attribute negligence to a fellow practitioner for not finding a condition which is not there is, to say the least, unprofessional. Evans was evidently a bad subject for any disease, and for a man in his condition to go "about the streets and into public-houses," to quote the coroner, is to court death.

### HOME FOR ILLEGITIMATE INFANTS.

To the Editors of THE LANCET.

SIRS.—Can you, or any of your readers, tell me of an institution in which an illegitimate infant would be kept? The mother is poor, but belongs to a respectable family, and we want to save the friends from the exposure if possible. I am, Sirs, yours faithfully,

Oct. 28th, 1901.

ACCOCHEUR.

### WANTED—A HOME.

To the Editors of THE LANCET.

SIRS.—Could you, or any of your readers, inform me of a suitable home for a blind woman, about 50 years of age? She could afford up to 15s. per week. I am, Sirs, yours faithfully,

Oct. 27th, 1901.

J. P.

### "A COMMISSION OFFERED."

IN THE LANCET of Oct. 27th, 1900, p. 1250, we drew attention to the improper methods of the Century Thermal Bath Cabinet Company. This company has now started an "Eastern Branch," the address of which is Arbour-street, E., and from a circular sent out, and signed "H. A. Spurling," we learn that medical men are offered a commission of 10s. 6d. on every cabinet ordered from the Eastern Branch on their recommendation by their clients and friends. The pictures of young women "cooling off" still accompany the circular and there is also a list of "only a few of the hundreds of physicians who are using the

Century Thermal Bath Cabinet in their own families, many of whom are recommending it to their patients." We wonder whether all the physicians whose names appear in this list have been bribed in the way above indicated, and although we do not suppose that such is the case, still, anybody allowing his name to appear in such a list lays himself open to the suspicion of having accepted 10s. 6d. per Century Thermal Bath Cabinet sold through his recommendation. We can only advise all medical men to have nothing to do with a company which employs such questionable methods to increase its trade.

#### THE UNQUALIFIED ASSISTANT.

To the Editors of THE LANCET.

SIRS,—I beg to inclose a cutting from the *Daily Mail* of Oct. 23rd by which you will see that Judge French decided that the employment of an unqualified assistant is not an illegal act. As this decision seems quite the opposite from the last issue from the General Medical Council in which the employment of unqualified assistants has been made a penal offence, I should, in the interest of the profession at large, be obliged if you would in your next issue inform me whether (1) this ruling will stand as a precedent in case of defence; and (2) whether the passing of that Act forbidding the employment of an unqualified assistant by the General Medical Council has been obtained by a special Act of Parliament.—I am, Sirs, yours faithfully,

Fyrland-road, N., Oct. 28th, 1901.

M. Blok.

\* According to the *Daily Mail* in an action in which a medical practitioner sued for fees for services rendered by his unqualified assistant to the defendant His Honour Judge French said that the medical practitioner was entitled only to fees for his own visits, although it was not illegal for him to employ an unqualified assistant, provided that the assistant was not held out to be a qualified medical practitioner. There appears to be a confusion in the mind of our correspondent, Mr. Blok, between that which is an infringement of the law of the land, dealt with as such before a judge or magistrate (as, e.g., when an unqualified person wilfully and falsely pretends that he is a registered medical practitioner) and that which is an infringement of the etiquette of the medical profession dealt with as such by the General Medical Council (as, e.g., when a medical practitioner advertises, or, to take our correspondent's example, when he employs an unqualified assistant). Only a registered medical practitioner is entitled to recover fees for medical and surgical attendance, and it naturally follows that he cannot recover fees in respect of work done by an assistant which the assistant would not be able to recover for himself. The employment of an unqualified person to practise medicine could hardly be made illegal without making unqualified practice illegal in itself, of which at present there appears to be no prospect, but the employment of an unqualified assistant to compound or dispense poisons by a medical man keeping an open surgery is illegal under the Pharmacy Acts.—Ed. L.

#### FREE TRADE IN VENEREAL DISEASE.

THE following lines were picked up in the board-room of a hospital and evidently refer to certain active demonstrations in the cause of purity which we have had before now occasion to find fault with in THE LANCET.

Contagious diseases  
Some ladies it pleases  
To take as their hobby,  
And rail at a Bobby  
When duty compels him  
And Parliament tells him  
To take up a lady  
Whose habits are shady;  
And make an inspection,  
Despite her objection,  
Whereby, if infected,  
She's promptly detected,  
And placed in seclusion  
Until the conclusion  
Of indisposition  
Has made her condition  
No longer a terror  
To youth in its error.  
They say, "It were better  
To look on and let her

Spread loathsome contagion,  
That so it may rage on  
And prove a prevention  
To vicious intention!"

But Physical Evil,  
The child of the Devil,  
Was never intended  
With Good to be blended.  
So, "Good doctor, detain her!  
Good Guardians, maintain her!  
Till taint of pollution  
Is lost in ablution."

Methinks, if the ladies  
Whose mission or trade is  
To stump on a platform  
Would argue in that form,  
Why, a healthier nation  
Would bless their vocation!

#### THE TREATMENT OF THE DROWNED.

To the Editors of THE LANCET.

SIRS,—I have carefully studied the lectures in the June and July issues of THE LANCET of this year, delivered by Dr. Bowles. Not knowing where to get a description of the Marshall Hall method of resuscitation of the drowned I trust you will be kind enough either to send me a copy of the instructions or the address where I could obtain one. Perhaps one of your readers will give me the information.

I am, Sirs, yours faithfully,

Oct. 24th, 1901.

P. T.

#### ADVERTISEMENT.

To the Editors of THE LANCET.

SIRS,—You have exerted yourselves so frequently in attempting to protect the profession from the annoyance of receiving offensive circulars by post, that I venture to draw your attention to the worst

example of this kind of advertising that I have yet seen. Some days ago I received by book post, and inclosed only in an ordinary wrapper, a pamphlet entitled, "The Radical Treatment of Piles and Prolapsus Ani," purporting to be written by a Dublin hospital surgeon whose name and distinctions it bears. On the title-page is written my name, "with the author's kind regards," and on glancing down the page I find the date of publication to be 1889. As the author is entirely unknown to me personally I am quite at a loss to know why I should be the recipient of his kind regards and 12-year old pamphlet, unless it be due merely to the fact of my name being in the Directory. I should say that the circular was addressed not to my professional but to my family address.

I am, Sirs, yours faithfully,

Oct. 29th, 1901.

A DUBLIN PHYSICIAN.

#### THE OBLIGATION TO ATTEND A CASE.

A CORRESPONDENT sends us the following two questions:—(1) Can a medical man refuse to attend a case if his fee is offered? and is he liable for damages if it is proved that death is caused through his non-attendance, there having been no previous engagement? (2) Is there any law or rule of the General Medical Council to compel a medical man to attend in a case of emergency? The answers are:—(1) A medical man is at liberty to refuse to attend a case, but he should never do so for any trivial reason or unless he knows that the case cannot possibly be serious. (2) The answer to the first question applies to the second.

HER MAJESTY QUEEN ALEXANDRA has consented to become patroness of the St. Mary's Hospital for Sick Children at Plaistow.

S. E. S.—Generally speaking Florida has an excellent climate and is much used as a winter resort by invalids from the Northern States of America. St. Augustine on the east is one of the chief resorts and the climate there is similar to that of Italy and the south of France. The hotel accommodation is, we believe, fairly good. Jacksonville is the chief distributing centre of commerce between Florida and the North. A certificate of satisfactory examination by the State (or a district) board of medical examiners is necessary. Diplomas confer no right to practise.

H. B. will find that the question that he asks was answered in the current Students' Number, THE LANCET of Sept. 7th, 1901.

Subscriber.—Our correspondent will find a list of books in the Students' Number of THE LANCET, Sept. 7th, 1901, pp. 634 to 636.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

## Medical Diary for the ensuing Week.

### OPERATIONS.

#### METROPOLITAN HOSPITALS.

**MONDAY (4th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynaecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopaedic (2 P.M.), City Orthopaedic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

**TUESDAY (5th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**WEDNESDAY (6th).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopaedic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

**THURSDAY (7th).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynaecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**FRIDAY (8th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square, (9.30 A.M.).

**SATURDAY (9th).**—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.).  
At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

## SOCIETIES.

**TUESDAY (5th).**—PATHOLOGICAL SOCIETY OF LONDON (Jenner Institute of Preventive Medicine).—8 P.M. Laboratory Meeting. Dr. A. Macfadyen and Mr. S. Rowland: (1) Investigations on Intracellular Constituents; (2) Demonstration of Methods of obtaining Intracellular Constituents; (3) Some Results already obtained as regards the Bacillus Typhosus.—Mr. A. Moore: The Isolation of the Typhoid Bacillus.—Mr. G. F. Petrie: The Hemolysis of Bacillus Pyocyaneus.—Mr. J. B. Leathes: (1) On the so-called Mucous Intestinal Casts (Mucous Colitis); (2) On the Products of Splenic Proteolysis.—Mr. A. Harden: On Isotonic Culture Media.—Mr. A. Mackenzie: The Artificial Preparation of Active Bacillus Hydroxybutyric Acid of Urine.—Mr. S. G. Hedin: Proteolytic Enzyme of Fibrin. Specimens.—Dr. A. Macfadyen: Experimental Tuberculosis in a Monkey.—Mr. A. Moore: Apparatus for Sub-cultivating Microscopic Cultures.

**WEDNESDAY (6th).**—OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by the President, Mr. Bland-Sutton, Dr. Handley, Dr. Lewers, Mr. Doran, and Dr. Galabin. Paper.—Mr. A. Doran and Dr. C. Lockyer: Sloughing Fibroid of the Left Uterine Cornu, Abnormal Relations.

**THURSDAY (7th).**—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Mr. B. Browne: Twenty-five Years' Experience of Urinary Surgery in Children. (Harveian Lecture.)

**RÖNTGEN SOCIETY** (20, Hanover-square, W.).—8.30 P.M. Mr. H. Jackson. Presidential Address.

**CHILDHOOD SOCIETY** (Library of the Sanitary Institute, Margaret-street, W.).—8 P.M. Lecture.

**NORTH-EAST LONDON CLINICAL SOCIETY** (Tottenham Hospital).—4 P.M. Clinical cases will be shown by Dr. Trevelyan, Dr. Willoughby, Dr. Whiting, and others.

**FRIDAY (8th).**—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers.—Mr. B. G. Moynihan: The Operative Treatment of Cancer of the Pyloric Portion of the Stomach.—Mr. T. H. Morse: Case of Intracranial Section of the Second and Third Divisions of the Trigeminal Nerve for Severe Neuralgia.—Mr. W. Haward: A Case of Fragilitas Ossium.

**OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM** (11, Chandos-street, Cavendish-square, W.).—Dr. A. H. Thompson: Section of Orbital Tumour (? Endothelioma ? Adeno-sarcoma).—Mr. E. Nettleship: Chronic Serpiginous Ulcer of Cornea (Mooren's Ulcer).—Dr. W. E. Thomson: Three Cases of Keratitis in the New-born occurring after Instrumental Delivery and Resulting in each case in an almost identical Rare Form of Opacity.—Dr. C. O. Hawthorne: On Intra-cranial Thrombosis as the cause of Double Optic Neuritis in Cases of Chlorosis.

**BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION** (11, Chandos-street, Cavendish-square, W.).—4 P.M. Annual General Meeting.—Communications will be read and cases shown by the President, Mr. L. Browne, Dr. Abercrombie, and Mr. Nourse. 5 P.M. Address.—The President-Elect (Dr. J. Macintyre, Glasgow): The Application of Physical Science to the Surgery of Diseases of the Throat and Nose.

## LECTURES, ADDRESSES, DEMONSTRATIONS, &amp;c.

**MONDAY (4th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. R. Crocker: Clinique. (Skin.)

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Edwards: Electrical Examination of the Bladder and Urethra.

**TUESDAY (5th).**—ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. J. S. Bury: Prognosis in Relation to Disease of the Nervous System. (Bradshaw Lecture.)

**MEDICAL GRADUATES' COLLEGE AND POLYCLINIC** (22, Chancery-street, W.C.).—4 P.M. Dr. J. Taylor: Clinique. (Medical.)

**NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC** (Queens-square, Bloomsbury).—3.30 P.M. Dr. A. Turner: Locomotor Ataxy.

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Minor Surgery.

**WEDNESDAY (6th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. J. Cantlie: Clinique. (Surgical.)

**LONDON THROAT HOSPITAL** (204, Great Portland-street, W.).—5 P.M. Mr. Waggott: Diseases of Accessory Sinuses. (Post-Graduate Course.)

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST** (Brompton).—4 P.M. Dr. Latham: The Early Diagnosis of Pulmonary Tuberculosis.

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Eccles: Surgical Anatomy.

**THURSDAY (7th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.)

**THE HOSPITAL FOR SICK CHILDREN** (Gt. Ormond-street, W.C.).—4 P.M. Mr. Fennell: Clinical Demonstration.

**CHARING-CROSS HOSPITAL.**—4 P.M. Dr. Green: Cases in the Wards. (Post-Graduate Course.)

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Edwards: Electrical Examination of the Rectum.

**FRIDAY (8th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. T. Collins: Clinique. (Eye).  
**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Saunders: Therapeutics.

## EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

## MANAGER'S NOTICES.

## TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsgagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Office, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.			TO THE COLONIES AND ABROAD.		
One Year	... ..	£1 12 6	One Year	... ..	£1 14 8
Six Months	... ..	0 16 3	Six Months	... ..	0 17 4
Three Months	... ..	0 8 2	Three Months	... ..	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR. CHARLES GOOD, THE LANCET Office, 423, Strand, London, W.C.

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 31st, 1901.

Date	Barometer reduced to Sea Level and 32° F.	Direction of Wind	Rain-fall	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Oct. 25	30.05	W.	0.03	58	53	44	44	45	Overcast
" 26	30.13	S.E.	...	70	53	39	39	40	Foggy
" 27	30.37	S.W.	...	82	56	36	40	40	Fine
" 28	30.18	S.W.	...	94	63	40	52	52	Cloudy
" 29	29.98	S.W.	...	61	57	52	53	54	Overcast
" 30	30.19	N.E.	0.01	79	57	51	50	53	Fine
" 31	30.25	E.	...	88	55	47	44	50	Fine

During the week marked copies of the following newspapers have been received:—*Western Daily Press, Bristol Mercury, Westmorland Gazette, Liverpool Courier, Building News, Revue Scientifique, Sunday Times, Yorkshire Post, Liverpool Daily Post, Reading Mercury and Oxford Gazette, Windsor and Eton Express, Hertfordshire Mercury, Philadelphia Evening Telegraph, Wiltshire County Mirror, British Sanitarian, Leeds and Yorkshire Mercury, Blyth News, Local Government Chronicle, Public Health, Sanitary Record, Globe, Leeds Post, County Press (Bristol), Oxford Times, Belfast News Letter, Wiltshire County Express, Swansea Daily Leader, Northern Whig (Belfast), Worksoo Guardian, St. James's Gazette, &c.*

### Communications, Letters, &c., have been received from—

- A.**—Ardath Tobacco Co., Lond.; Messrs. Allen and Hanburys, Lond.; Apollinaris Co., Lond.; Anglo-American Nile Steamer and Hotel Company; A. L. R.; Alpha, Fordingbridge; A. D. T.
- B.**—Mr. J. Bland-Sutton, Lond.; Mr. J. F. Briscoe, Alton; Messrs. Burroughs, Wellcome, and Co., Lond.; Mr. S. H. Benson, Lond.; Mr. E. Brogden, Salisbury; Messrs. C. Birchall, Liverpool; Birkenhead and Wirral Children's Hospital, Hon. Secretary of; Mr. C. L. Bedford, Birmingham; Messrs. W. H. Bailey and Son, Lond.; Bradford Union, Caversham, Clerk of; Dr. Braithwaite, Leeds; Mr. H. Bentley, Stockport; Barnwood House Hospital, Gloucester, Medical Superintendent of; Messrs. A. and C. Black, Lond.
- C.**—Messrs. S. Clark and Co., Lond.; Calmon Asbestos and Rubber Works, Lond., Secretary of; Mr. J. Clark, Edinburgh; Messrs. T. Christy and Co., Lond.; Messrs. Cassell and Co., Lond.; Mr. J. Black Cameron, Lond.; Cortland Wagon Co., Lond.; Dr. E. M. Crookshank, East Grinstead; Mr. T. E. Cottu, Southport; County Asylum, Prestwich, Secretary of; Cafolin Co., Lond.
- D.**—Sir Dyce Duckworth, Lond.; Dover Hospital, Secretary of; Messrs. Davis and Ornstein, Lond.; Mr. J. Davis, Lond.; Derby County Asylum, Mickleover, Clerk of; D. M. G.; Mr. E. Donaldson-Sim, Hertford; Dr. H. A. Des Voeux, Lond.
- E.**—Dr. W. Ewart, Lond.; Dr. C. R. Elgood, Windsor; Eday Parish Council, Orkney, Parish Clerk of; *Electro-Therapeutics*, New York, Editor of; Messrs. Ellen and Co., Lond.; Messrs. Edwards and Son, Lond.
- F.**—Dr. Theodore Fisher, Bristol; Dr. A. Mearns Fraser, Portsmouth; F.R.C.S., Northam; Dr. A. C. Farquharson, Bishop Auckland; F. L. T.; Mr. T. W. Fryer, Grampound-road, Professor R. Fornis, Madrid; Mr. G. C. Franklin, Leicester.
- G.**—Mr. G. Gordon, Lond.; Dr. G.; General Medical Council, Clerk of; Messrs. E. B. Goulden and Co., Canterbury; Messrs. W. Green and Sons, Edinburgh; Messrs. Guest, Keen, and Co., Dowlais; Dr. C. Goring, Lond.; Messrs. W. Gaymer and Son, Attleborough; Guy's Hospital Medical School, Dean of; Mr. P. J. Glenton, Lond.; Messrs. Charles Griffin and Co., Lond.; St. George's Hospital, Dean of; Mr. H. Greenwood, Brighton; E. Gooch, Lond.
- H.**—Dr. H. J. Hillstead, Lond.; Dr. Henry Harper, Nottingham; Mr. C. H. Hulsh, Lond.; Mr. H. Hilliard, Lond.; Mr. A. E. Holden, Lond.
- I.**—Ingham Infirmary, South Shields, Secretary of.
- J.**—Mr. T. W. Joshi, Amraoh, India; Mr. A. G. Joll, Lond.; Dr. H. Joy, Rangoon; J. C. B.; *Journal of the Association of Military Surgeons of the United States*, Carlisle, U.S.A., Editor of.
- K.**—Mr. E. D. Kirby, Edgbaston; Messrs. R. A. Knight and Co., Lond.; Mr. F. Kettle, Lond.
- L.**—Mr. C. Legg, Walthamstow; Dr. H. Lambert Lack, Lond.; Dr. Liebert, Lond.; Mr. R. W. Lloyd, Lond.; Dr. C. H. Leaf, Lond.; London Hospital, Warden of; Messrs. Laurie, Lond.
- M.**—Mr. S. W. MacIlwaine, Redhill; Mr. W. L. W. Marshall, Sidmouth; Dr. E. Mackey, Hove; Medical Society of Victoria, Melbourne, Hon. Treasurer of; Medical Library, Winnipeg, Canada; St. Mary's Hospital, School, Secretary of; Messrs. C. Mitchell and Co., Lond.; Middlesex Hospital, Dean of; Dr. G. F. Murrell, Reading; Dr. H. Macnoughton-Jones, Lond.; Messrs. Mather and Crowther, Lond.; M. H.; *Midland Medical Journal*, Birmingham, Editor of.
- N.**—Dr. W. A. Newall, Chester; National Provident Institution, Lond., Secretary of; National Dental Hospital, Lond., Dean of; Dr. T. R. Neilson, Philadelphia; Rev. T. Normandale, Cavendish, Suffolk; Nurses' Institution, Canterbury, Lady Superintendent of; Mr. H. Needles, Lond.; Mr. J. C. Needles, Lond.
- O.**—Mr. G. W. Ori, Lond.; Owens College, Dean of; Odourless Retentive Disinfectant Cloth Co., Lond., Secretary of.
- P.**—Mr. Noah Parkes, Burslem; Dr. J. R. Prytherch, Chester; Dr. D. M. Paton, Melbourne; Mr. F. Pamphill, Gloucester; Mr. Y. J. Pentland, Edinburgh; Messrs. Parke, Davis and Co., Lond.; Dr. A. H. Pirie, Lond.; P. S.; Mr. H. C. Powell, Lond.; Dr. Theo. Parker, Norwood; Messrs. Peacock and Hadley, Lond.
- R.**—Dr. J. Riviere, Paris; Dr. E. D. Rowland, New Amsterdam; Dr. W. Redpath, Lond.; Dr. Nathan Raw, Liverpool; Dr. Andrew Ross, Molong, N.S.W.; Mr. H. M. Rigby, Lond.; Messrs. R. Rout and Son, Banham; Mr. R. Redpath, Newcastle-on-Tyne; Messrs. Reynolds and Branson, Leeds.
- S.**—Mr. Munro Scott, Lond.; Miss Helen Stanley, Gravelly Hill; Mr. P. S. Spokes, Lond.; Sir James Sawyer, Birmingham; Messrs. W. Sugg and Co., Lond.; Surgeon-Major R. R. Sleman, C.I.V., Lond.; S. E. S., Bolton; Dr. J. L. Steven, Glasgow; Stirling District Asylum, Larbert, Secretary of; Dr. F. Shuffelbotham, Newcastle-under-Lyne; Mr. A. Stenhouse, Glasgow; Messrs. W. B. Saunders and Co., Lond.; Mr. W. Smith, Reading; Dr. D. W. Samways, Mentone; Messrs. G. Street and Co., Lond.; Sell's Advertising Agency, Lond.; Messrs. W. H. Smith and Son, Manchester; Scholastic, Clerical, &c., Association, Lond.; Messrs. W. H. Smith and Son, Lond.; Somerset and Bath Asylum, Secretary of; Mr. W. Stuart-Low, Lond.
- T.**—Dr. J. A. Taylor, Dunkeld; Dr. C. Bell Taylor, Nottingham; St. Thomas's Hospital, Secretary of; Dr. H. Campbell Thomson, Lond.; T. F.; T. S. B.
- U.**—University of Durham, Dean of Medical Faculty of; University

College, Cardiff, Dean of; University College, Sheffield, Dean of; University College, Liverpool, Dean of; University College, Bristol, Dean of.

**V.**—Vinolia Co., Lond.

**W.**—Dr. R. Prosser White, Wigan; Dr. T. Jason Wood, Bradford; Dr. H. B. Woodcock, Manchester; Mr. S. Wand, Leicester; Dr. V. Wanostrocht, Beddgelert; Westbrooke House, Alton, Secretary of; Wigmore Nurses' Institution, Lond.; Lady Superintendent of; Willis, Ltd., Lond.; Mr. F. C. Wallis, Lond.; Dr. A. Wauchope, Glasgow; Messrs. W. Wood and Co., New York.

### Letters, each with enclosure, are also acknowledged from—

- A.**—Mr. J. W. Arrowsmith, Bristol; Dr. F. H. Alderson, Bourne-mouth; A. G.; A. W. H.; A. F.; A. B.; Newcastle-on-Tyne; A.; A. T. R. J.; A. P.; Alpha, Liverpool; Mr. E. Arnold, Lond.
- B.**—Mr. W. R. Bates, Ilkley; Rev. H. J. Bodington, Winchfield; Mr. E. K. Brown, Andover; *Birmingham Daily Post*; B. and M.; Dr. A. S. Barnes, Lond.; Mr. J. W. Booth, Chesterfield; Mrs. E. A. Blackmore, Lond.; Birmingham City Asylum, Clerk of.
- C.**—Dr. J. W. Campbell, Mentone; Messrs. T. Cook and Son, Lond.; Messrs. Carrick and Co., Lond.; Messrs. Condy and Mitchell, Lond.; Dr. Cotton, Newmans; Dr. E. K. Campbell, Lond.; Messrs. E. Cook and Co., Lond.; Cumberland Infirmary, Carlisle, Secretary of; Chichester Infirmary, Secretary of; C. E. J. S.; C. S. P.
- D.**—Messrs. Duncan, Flockhart, and Co., Edinburgh; Doctor, Boscombe; Dorchester Asylum, Dorset, Medical Superintendent of; Dr. T. Dewar, Helton-le-Hole.
- E.**—Dr. G. C. Elliott, Nantwich; E. R. F.; Ernest, Oxford; Mr. T. F. Elmes, Cork; E. J. D.; Dr. H. D. Everington, Sandstead.
- F.**—Dr. A. W. Fuller, Maidenhead; Messrs. Fletcher, Fletcher, and Co., Lond.; F. G. P.; F. L. T.; Messrs. J. S. Fry and Sons, Bristol; F. H.; Mr. A. Drummond Forbes, Milcarne; Mr. W. A. Frost, Lond.
- G.**—Dr. J. H. R. Glenn, Dublin; Mr. F. Golding-Bird, Holmwood; Dr. W. S. Griffith, Milford Haven; Messrs. Goodworth and Warboys, Winterton; Mr. H. J. Glaisher, Lond.
- H.**—Mr. J. C. Hamilton, Perth; Mr. H. A. Hall, Mayfield; Mr. J. V. Hartley, Queenstown, South Africa; Mr. F. Henry, Lond.; H., Westminster; H., Lond.; Messrs. Hogg and Son, Lond.; Major Hehir, I.M.S., Shillong, Assam; Mr. J. Hare, Weston-super-Mare; Mr. J. Humphreys-Jones, Birmingham; Mr. T. A. B. Harris, Sheffield; Hornsey Urban District Council, Clerk of; Dr. H.; Hertfordshire County Asylum, St. Albans, Clerk of; H. E. G.
- J.**—J. L. J.; J. M. G.; J. H. B.; J. C.
- K.**—Dr. C. R. Killick, Williton; Kent and Canterbury Hospital, Secretary of; K. T.
- L.**—Dr. D. Lawson, Banchory; London College for Pharmacy, &c., for Ladies, Secretary of; Lee's Advertising Agency, Lond.; Messrs. Lyell and Co., Lond.; Messrs. Lee and Martin, Birmingham.
- M.**—Mr. W. Martindale, Lond.; Mr. J. McMurtrie, Glasgow;
- Maltine Manufacturing Co., Lond.; Medicus, Startforth; Moorcoote Sanatorium, Eversley; Manchester Medical Agency, Secretary of; Mr. E. W. Morris, Port Adelaide, South Australia; Dr. R. B. Mahon, Ballinrobe; Rev. F. McDowell, Lond.; Manchester Corporation, Treasurer of; Dr. T. K. Monro, Glasgow; Manchester Royal Infirmary, Secretary of; Medicus, Manchester; M.R.C.S., Shepperton; Messrs. J. Maythorn and Son, Biggleswade; Messrs. Manlove, Elliott, and Co., Nottingham; Dr. W. R. Mander, Stockport; Mr. A. R. MacGregor, Woodhall Spa; Mr. Milne, Greenock; Manchester Southern Hospital, Accountant of; Dr. F. W. Mott, Lond.; Medicus, Harrogate.**
- N.**—Dr. W. K. Nicol, Llandudno; Mr. W. E. C. Nourse, Torquay; North Wales County Lunatic Asylum, Denbigh; National Dental Hospital and College, Lond.
- P.**—Mr. F. W. Provost, Harrow; Dr. W. G. Pretsell, Annfield Plain; P. Llanfairfechan; Dr. G. Percira, Lond.; Messrs. Pownceby and Co., Lond.
- Q.**—Queen's Hospital, Birmingham.
- R.**—Mr. R. Rowlands, Crickleth; Royal Cornwall Infirmary, Truro, Secretary of; Messrs. A. Reddick and Co., Lond.; Royal South Hants, &c., Hospital, Southampton, Secretary of; Messrs. Robinson and Sons, Chesterfield; Mr. B. V. Rao, Bangalore, India; Mr. E. J. Reid, Lond.; R. M. G.; Dr. R. Russell Ross, Minas de Rio Tinto, Spain.
- S.**—Mr. E. Saywell, Nottingham; Dr. W. C. Steele, Alendale Town; Sanitas Co., Lond.; Messrs. Savory and Moore, Lond.; Mr. J. H. V. Serihan, Colombo, Ceylon; Dr. R. le Fleming Shepherd, Stamford; S. W. Witton Park; S. G. W., Suffolk General Hospital, Bury St. Edmunds, Secretary of; Sussex County Hospital, Brighton; Smith's Advertising Agency, Lond.; Dr. T. C. Squance, Sunderland.
- T.**—Dr. C. Turner, Butte City, U.S.A.; T. A. L.; T. H.; Messrs. J. Turner and Co., Queensferry; Mr. J. Thin, Edinburgh; T. J. P.
- V.**—Mr. S. Verity, Cardiff.
- W.**—Mr. J. F. Wylie, Oxford; Dr. H. E. White, Coventry; Dr. W. Whitla, Belfast; W. G.; Dr. M. W. Williams, Carmarthen; Dr. H. M. Woodhead, Chisholme; Weston-super-Mare Hospital, Hon. Secretary of; Worcester County Asylum, Powick, Secretary of; W. S. R.; Wonford House Hospital, Exeter, Treasurer of; Weymouth-street (32) Lond.; Mr. R. Willson, Oxford; Messrs. H. Wilson and Son, Lond.; J. Woodcock, Manchester.
- X.**—X., Purley.

EVERY FRIDAY.

THE LANCET.

PRICE SEVENPENNY.

#### SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.

One Year	£1 12 6
Six months	0 16 3
Three Months	0 8 2

TO THE COLONIES AND ABROAD.

One Year	£1 14 8
Six Months	0 17 4
Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

#### ADVERTISING.

Books and Publications	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6
Quarter Page	£1 10s.	
Half a Page	£2 15s.	
An Entire Page	£5 5s.	

Terms for Position Pages and Serial Insertions on application.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

## The Bradshaw Lecture

ON

### PROGNOSIS IN RELATION TO DISEASE OF THE NERVOUS SYSTEM.

*Delivered before the Royal College of Physicians of London on Nov. 5th, 1901,*

By JUDSON S. BURY, M.D., F.R.C.P. LOND.,  
PHYSICIAN TO THE MANCHESTER ROYAL INFIRMARY.

MR. PRESIDENT,—Allow me to thank you for the great honour you have conferred upon me by asking me to deliver the Bradshaw Lecture this year, and allow me to express a wish that the value of my lecture were in any degree equal to my appreciation of the honour.

When we first enter upon the practice of medicine we are, perhaps, too apt to separate diseases from a prognostic point of view into the curable and the incurable—that is, to recognise one class of diseases in which complete recovery is the rule and another class in which the tendency is to a fatal issue or to only partial recovery. With increasing experience of the course and terminations of morbid processes we find ourselves less able to draw sharp distinctions between the ultimate results of different diseases. We meet with formidable disease which appears to have been caused by some simple ailment that we had regarded as being completely cured. For example, we attend an adult suffering from influenza. In a fortnight he appears to be quite well, but a year later he consults us for headache, nervousness, incapacity for work, and other symptoms which constitute the condition known as neurasthenia, and he says that he has never been the same man since the attack of influenza. On the other hand, if we study diseases that are regarded as incurable we are surprised to find that every now and then such a disease is apparently completely cured. Thus we occasionally see cases which present the classical symptoms of brain tumour in which, after a time of anxiety, a stationary stage is reached; the prognosis becomes more hopeful, and, as regards the prospect of mere existence, it may be very good. More rarely we see a child recover from symptoms which, rightly or wrongly, we regarded as indications of tuberculous meningitis. Such experiences tend to make us more cautious regarding the prognosis of ailments which usually recover, more open-minded in respect to those which, as a rule, pursue a downward path. We begin to believe (1) that illness, however slight, may leave behind it some weak spot which, after months or even years, may be attacked by a noxious agent and become the starting-point of chronic progressive disease; and (2) that severe organic disease is not always fatal; that sometimes the morbid process is arrested, and, in exceptional cases, even completely cured. A full consideration of the subject, indeed, shows us that an accurate prognosis of disease is well-nigh impossible, and that even an approximate forecast presents great difficulties which are perhaps more prominent in relation to diseases of the nervous system than to diseases affecting other parts of the body.

The problem before us may be stated as follows. A part of the nervous system—say, a nerve-cell—is attacked by a poison. The effect will depend partly upon the nature, the virulence, and the duration of the action of the poison, and partly upon the resistance offered by the cell. Both factors present infinite variations. If we think only of the resistance of the cell which depends on its condition at the time of attack we see that this condition is the result of all the influences that have been brought to bear on the cell during its birth, development, and existence—that is, of its inherited qualities and its environment past and present. Moreover, its resistance may be helped by agencies outside it; for example, the development of antitoxins. It may be lowered, owing to the cell being cut off, in consequence of its altered condition, from the full benefit of the sensory and other impulses which it normally receives from adjacent neurons. The resistance, too, may be modified by influences which the lesion has itself induced in other parts of the nervous system—as, for example, the inhibition of the functions of other centres. Furthermore, the direct effect of

No. 4080.

the changed condition of the cell on its surroundings, as on its axone or on the arborisations of neighbouring neurons, has to be taken into account before we can attempt to grasp the pathology of the situation. The results of such cell disturbance are manifested to our senses by what we call symptoms, and very often they are the only elements of the disease with which we are acquainted. Thus the condition known as hysteria is a mere collection of symptoms which may give us information as to the site, but none as to the nature, of the lesion. In other cases we know something of the attacking agent—as, for example, syphilis—and of the changes it produces in nerve-tissue, and then we can form a more complete diagnosis. But even in these cases it is usually far easier to make a regional than a pathological diagnosis, and this will continue to be the case until our knowledge of the causes of the disease has attained a firmer basis. It is, then, our ignorance of etiology and of general pathology in its broadest meaning which makes our diagnosis and our prognosis so often imperfect or erroneous. In the meantime it may be profitable to review our knowledge of some of the elements which, as I have indicated, are essential factors in the framing of a prognosis.

#### PROGNOSIS IN RELATION TO THE ATTACKING AGENT.

Our knowledge of the various agents that may set up disease is too limited to help us much in making a forecast of particular ailments. A clot in a cerebral vessel will rob a portion of brain of its blood-supply and thus lead to impairment or loss of functions, but from the symptoms presented to us we cannot determine whether the obstruction will be temporary or permanent. A blow on the head, insufficient in force to cause fracture of the skull or other gross lesion, may produce symptoms of concussion from which the patient slowly recovers, but we are unable to say that a cure is established, for a train of symptoms may begin to develop some time after the accident, symptoms which in some cases indicate a more or less permanent damage to cortical cells; while in other cases they point to the presence of a brain tumour. There is good evidence that irritation of sensory nerve-fibres may lead to muscular atrophy. Thus articular lesions are often quickly followed by wasting of the muscles that move the affected joint, and especially of its extensor muscles. In some cases the atrophy is persistent, and it may spread to other muscles of the limb. I believe that sometimes progressive muscular atrophy is initiated in a similar manner. For example, a policeman in a severe struggle with a maniacal patient strained some of the muscles of the right arm. Two or three weeks later he noticed that the limb was getting thin and weak, and in a few months the case was clearly one of chronic anterior poliomyelitis.

An absence of the secretion of the thyroid gland appears to be the cause of the impaired brain functions met with in cretinism and in myxoedema, while absence of the parathyroid secretion has probably something to do with the origin of exophthalmic goitre. Still we know but little regarding the resulting chemical changes which lead up to these diseases, nor can we say how far symptoms in other nervous maladies may depend on modifications in the quantity or the quality of gland secretions which enter the circulation. As to poisons, which may be regarded as the commonest causes of nervous disease, we are daily acquiring more knowledge. We know a good deal regarding the course of diseases produced by alcohol, lead, arsenic, and other poisons which are introduced into the body, and something of the effects caused by poisons which are the products of bacteria and which are produced within the body, such as the toxins of syphilis and tubercle. By analogy rather than by actual demonstration the nervous sequelæ of specific infectious diseases are attributed to the effects of the toxins of special micro-organisms. In the case of disseminated sclerosis, infantile paralysis, myelitis, and many other nervous affections, we assume that they, too, may be set up by poisons some of which might be derived from the products of over-fatigue, or of abnormal digestion in the alimentary canal, or from the perverted function of some other organ or tissue.

Two striking features may be noted regarding the effects of poisons—namely, their selective action and the immunity which is the direct result of their action. Immunity, however, is not known to occur in the case of poisons which are not of bacterial origin, with the exception of opium and tobacco. In the case of toxins both selective action and immunity play an important part in the prognosis of disease

and may now be briefly illustrated by reference to the nervous diseases produced by syphilis. The poison of syphilis shows a preference for the vascular structures at the base of the brain, for branches of the cerebral and spinal vessels, for the afferent conducting paths of the spinal cord, and for the cortical cells in the anterior part of the brain. Now, it is often stated that organic affections of the nervous system run a more favourable course when due to syphilis than when they are started by other agencies. The statement, if true, must be taken with considerable qualifications. When brain tissue is destroyed by the blocking of an artery it matters not whether the clot be of syphilitic or other origin; the result is permanent impairment of function. If brain tissue is damaged but not destroyed, then as much recovery may take place when the arterial obstruction is due to embolism from heart disease as when it is due to thrombosis from syphilitic endarteritis. But if there is only a narrowing of vessels there is reason to believe that the thickening is more amenable to treatment if syphilitic than if due to other forms of arterial sclerosis.

Exudation from syphilitic vessels may be removed by treatment, but it is impossible to say to what extent this will occur in any individual case. Moreover, there can be no doubt that absorption of exudations occurs in other specific infections, as, for example, in connexion with the inflammatory products which sometimes occur in the brain as a result of influenza, or in the cord in cases of myelitis of unknown toxic origin, for it is certain that occasionally well-marked symptoms of myelitis not due to syphilis entirely pass away. Two marked instances of such recovery have recently been under my care. Even if it be admitted that syphilitic exudations are more readily removed than are those which are not syphilitic, the admission is not opposed to a further statement—namely, that the prognosis of syphilis in relation to nervous diseases may, in respect to the final outcome, be worse than that of any other poison. One thing at least is certain—the germs of syphilis once introduced into the body are difficult to destroy. A syphilitic patient recovering from an attack of right hemiplegia may be seized with left hemiplegia. A syphilitic myelitis may develop some years after symptoms of cerebral syphilis, or a patient suffering from syphilitic meningo-myelitis may make a partial or complete recovery, and be adequately treated for a long time afterwards, and yet subsequently may have another serious breakdown in some part of his nervous system. In this respect syphilis presents a contrast to the acute specific fevers. For example, if the poison of measles sets up a disseminated myelitis and the patient recovers we are pretty confident that no subsequent nervous affection will develop as a result of the original infection. In syphilis, on the contrary, there appears to be an infinite capacity for future developments of its toxins. Some authorities have stated that if a person who has contracted syphilis is placed under proper treatment for a couple of years he may in the majority of cases be regarded as completely cured. My experience is opposed to such an opinion. It may be true that some persons are cured, but we cannot anticipate such a result. It does not follow because a person presents no symptoms for many years that he is cured. The germs of syphilis may lie hidden in his body, giving not the slightest indication of their deadly presence; and then after a period of 10 or even 20 years may suddenly revive, shatter his nervous system, and put an end to his life, after a few years of insanity or of a painful miserable existence. If this be the outlook for the future condition of the nervous system in the subjects of acquired syphilis, what is to be said of the prognosis when the poison is inherited? Here the outlook is equally uncertain and, if possible, even more gloomy, for the type of nervous syphilis in the child is a diffuse sclerosis of the cerebral cortex which arrests its growth, paralyses its highest functions, and slowly but surely leads to chronic progressive dementia.

Now, if we have to speak so cautiously about the course of diseases produced by a poison, the effects of which have been so carefully studied as those of syphilis, how much more caution is necessary in speaking of the action of poisons whose effects are so little known as those which we assume to be the exciting agents of disseminated sclerosis, of Landry's paralysis, and of many other forms of nervous disease. At the outset I alluded to influences, inhibitory or otherwise, which tend to modify the resistance of the part first attacked by an injurious agent. A consideration of such influences is of great interest, but I must pass them by in order to have time to make some remarks on the relation

of prognosis to the changes which are the result of these counteracting forces and to their outward expression by means of symptoms.

#### PROGNOSIS IN RELATION TO MORBID ANATOMY.

To what extent is the course of a nervous disease modified by the size, situation, and nature of the lesion present?

*Size.*—The mere size of a lesion appears to have but little influence on the progress of disease. A slowly-growing tumour in certain regions of the brain may reach a large size without giving rise to much disturbance of function; moreover, its development may be arrested, all the symptoms produced by it may pass away, and occasionally a partial recovery is established. On the other hand, a person who presents the group of symptoms which constitute Landry's paralysis, or the condition known as myasthenia gravis, may die within a few weeks or months, and no changes be found in the nervous system after the most careful microscopical examination. The terms "functional" and "organic" have been somewhat unfortunately used to separate diseases according to the presence or absence of visible changes. Now, visibility is a relative term; it depends on our eyesight and the powers of our microscopes, and, as regards nervous structures, to some extent on staining reagents, and, let it not be forgotten, on the thoroughness of our search. Hence with improved methods of investigating nerve tissue we may expect that the group of functional disorders will get smaller and smaller. If on grounds of convenience these terms be retained two points should be clearly recognised—namely: (1) the term "functional" ought to mean, not the absence of morbid changes, but only the absence of detectable changes; and (2) it ought not to be taken for granted that a disorder which has no known structural changes will run a more favourable course than one in which such changes are apparent. The lesions underlying paralysis agitans, exophthalmic goitre, epilepsy, and spasmodic torticollis are unknown to us, yet we cannot regard these diseases as curable. Death may result from a profound chemical disturbance of the atoms and molecules of nerve tissue which leaves no visible trace, and between such minute changes and a large lesion there must be every gradation in size.

*Situation.*—When the bulbar neurons which preside over the functions of respiration and deglutition are involved life is seriously endangered. When other cells and fibres are implicated the question of loss of function has to be considered rather than that of any immediate danger to life. It may be accepted as a general law that, other things being equal, lesions of the peripheral nerves are more quickly and completely recovered from than lesions of the central nervous system, and that lesions of the brain, at least as regards the degree to which function is impaired, are less serious than those of the cord. Thus the brain may be the seat of relatively large lesions without any definite symptoms being produced, while, owing to the small space transversely occupied by the centres and conducting paths in the cord, a comparatively slight lesion may injure it irretrievably. The situation of the lesion influences the degree to which impaired or lost function may be compensated for by the action of healthy parts of the nervous system, and, therefore, it has a definite relation to prognosis. For example, in hemiplegia the motor power of the leg is more readily restored than that of the arm, because the motor neurons of the legs are more intimately connected by association fibres in the cerebral and spinal commissural tracts than are those of the arm. In infantile paralysis the functions of the cells in the anterior horns, which are destroyed at a certain level, may be taken up by healthy cells at a higher or lower level. The principle of compensation also may be seen in cases of muscular atrophy, where a muscle may hypertrophy in fulfilling the function of its atrophic neighbour. It explains also to some extent the more favourable prognosis in affections of the sensory, as compared with those of the motor, mechanism, for, as is well known, the conduction of motor impulses is much more restricted to definite tracts than is that of sensory impulses. As regards the central nervous system then, restoration of function may be said to be due either to the recovery of nerve tissue which is only partially damaged or to the taking up by adjacent or distant structures of the functions that are lost, for there is no satisfactory evidence, and I have Dr. F. W. Mott's authority in support of the statement, that nerve-cells or fibres in the brain or cord which are completely destroyed can ever be replaced by new cells or fibres. Dr. Mott informs me that

he has frequently in degenerating tissues seen attempts at mitosis of the nucleus of a cell, but he has never seen this proceed to the development of a new cell.

With regard to the pathological significance of lesions in different parts of a nerve-cell the observations of Marinesco, Lugaro, and other investigators are of great interest. Lugaro<sup>1</sup> states that "lesions of the chromatic part are the first to appear in all cases in which the harmful action does not act suddenly and with such energy as to paralyse function; that they are in every case reparable, even when very grave, provided that the other parts of the cell have not suffered serious damage. It is very doubtful, however, if lesions of the achromatic part can be repaired, more especially since they very often appear contemporaneously with lesions of the nucleus, the integrity of which is indispensable for the conservation of the cell. He points out that there is no exact and constant relation between lesions of the chromatic part and functional disturbance, that the functional activity of the cell can continue even when the chromatic part is injured, and that this part does not possess structural arrangements necessary for the fulfilment of its function, which depends therefore upon chemical composition and not upon morphological disposition. Within certain limits of structural alteration function can remain intact, and will not exhibit disturbance with certainty except in cases of grave alteration, when the nutritive alteration is also grave. On the other hand, function will be entirely suppressed when the structural dispositions of the achromatic part, which seem more strictly related to the nervous conduction, are altered, or when they are suddenly affected by energetic chemical action."

*The nature of the lesion.*—If we could see the changes which occur at the onset of a morbid process, are they different in different diseases? Take a well-marked case of neurasthenia where a man in the prime of life begins to lose his mental capacity; his memory fails, he loses interest in everything; he cannot bring himself to do simple things, such as the writing of a letter. We assume that his cortical cells are deranged. In what way are they altered? Is the kind of change different to that which constitutes the initial stage, say, of general paralysis? In both diseases we have reason to believe that the cause is a toxin; in general paralysis this is usually of syphilitic origin; in neurasthenia its origin is not known. If the very earliest changes in the cortical cells of the two diseases were visible, would they be like or unlike? If like, we must assume that different poisons may at first produce the same results; and then, if the changes in the one case are progressive and lead to degeneration of the cells, which is represented by the symptoms of general paralysis, while in the case of neurasthenia they are more or less stationary, we should be at a loss for an explanation. Probably, if we found similar identity in the initial morbid changes of other diseases we should be disposed to believe that variations in progress might be due to variations in the dose of poisons; that a case of neurasthenia, for example, which had remained stationary for some time might, if the dose of its poison were increased, develop into one of general paralysis; in other words, that one disease might pass into another. This is a fascinating speculation, and is to some extent supported by the transitional clinical forms that are met with between well-marked types of different diseases. But, for my own part, I prefer to believe that each poison has its own point of attack and that the earliest change of each disease has its own peculiarities, minute enough, no doubt, and still invisible to our present methods, but which, if visible and thoroughly recognised, would enable us to diagnose the condition and to foretell its probable developments. This view receives support from the investigations of Lugaro<sup>2</sup> whom I have already quoted. He says: "The study of subacute intoxication has shown us that while the primary lesions of the nerve-cells have common features there are not wanting in them particular characters by which we can more or less completely distinguish one intoxication from another. The alterations that result from chronic intoxications present, according to Nissl, a remarkable uniformity both as a whole and individually. This fact, I believe, may be explained by the circumstance that the toxic action is complicated by autotoxic actions resulting from secondary disturbances of metabolism

and from alterations of the other viscera that reciprocally exercise an influence on the brain. These secondary disturbances, relatively uniform, must tend to mask the primary action, cancelling the original diversity of the picture produced by the various agents. The action of general and local infections of the nervous system has a very great analogy to that of the intoxications. This we can easily understand if we consider the greater importance of the indirect and general action exercised by the micro-organisms through their toxins in comparison with their direct and local action."

Are there any changes which immediately precede the minute ones in nerve cells which I have assumed to constitute the histological basis of the earliest symptoms in nervous diseases? The toxic material passes in the blood along the walls of a vessel; does it attack the nerve cell only or does it first attack the delicate and active endothelial cells lining the vessel? It is possible that some toxins may first attack the nerve cell and have their action limited to it, at least for a time, but histological evidence speaks strongly in favour of a previous, or at any rate of an associated, vascular lesion. Undoubtedly the prevalence of vascular lesions is the most striking thing in the morbid anatomy of cord and brain diseases. In all forms of myelitis, in disseminated sclerosis, and in poliomyelitis the spots of the disease are closely related to the distribution of blood-vessels, which may contain thrombi, have their coats thickened and their perivascular lymph sheaths crowded with round cells. These changes strongly suggest the action of some irritant on the endothelial lining of the vessel, which leads to an increased flow of lymph and leucocytes into the perivascular tissues and thus initiates the earliest nerve lesions. Apart, too, from visible vascular lesions, an irritant may set up spasm of muscle in the wall of an artery, for it seems probable that vaso-motor spasms may play an important part in the symptomatology, not only of organic disease, but also of hysteria, neurasthenia, headache, and many other functional affections.

#### PROGNOSIS IN RELATION TO SYMPTOMS.

We have seen that the influences at work in the production of disease and its effects are manifold, for in addition to the morbid changes which occur in the part attacked, which present infinite variations owing to variations in the nature and strength of the attack and of the resistance offered to it, we have to consider the changes which may be set up at a distance from the lesion, changes which, whether temporary or permanent, may cause certain inhibitory or accelerating influences to be exerted on the functions of various parts of the nervous system. If, then, the influences at work and their effects are so complicated, how shall we adequately interpret the results? The only manifestations to us are symptoms, and these depend, not on all, but only on some of the results of the disease. Our difficulties are still further increased by the fact that symptoms vary in different persons quite apart from the severity, distribution, and nature of the lesion. For example, with the same amount of irritation of sensory fibres the perception of pain in one person is extreme, in another very slight. Thus, one has watched the course of painless intrathoracic aneurysms and of pyloric cancers, and has felt convinced that the mere locality of the lesion was not sufficient in itself to account for the absence of pain. Again, one has seen cases of cerebral tumour in which headache was but slight and certainly far from constant. Without stopping to find reasons for such idiosyncrasy one may bear it in mind as a partial explanation of variations in other symptoms, objective as well as subjective; thus, I do not think that morbid anatomy always explains why paralysis is profound in one person, moderate or only slight in degree in another, or why the degree of muscular spasm varies so much in affections of the upper neuron.

As an example of want of correlation between symptoms and morbid anatomy the following case of glioma of the cord is worthy of record.

CASE 1.—A man, aged 24 years, was admitted under my care at the Manchester Royal Infirmary last June, complaining of weakness of the right arm. He stated that he first noticed the weakness on waking one morning, about three months before admission, and that during the last four weeks his neck had felt stiff and sore. On examination, all the muscles of the right arm were weak and wasted; he could feebly flex the wrist and fingers and feebly supinate and pronate the hand, but he was unable to extend the wrist

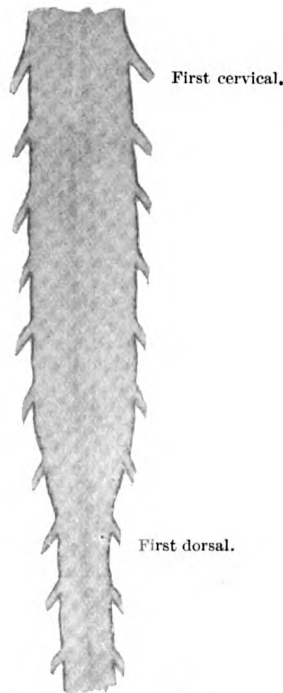
<sup>1</sup> Rivista di Patologia Nervosa e Mentale, 1899, quoted by Ford Robertson in his Text-book of Pathology in Relation to Mental Disease.  
<sup>2</sup> Loc. cit.

or to perform any movements at the elbow or shoulder. The power of the left arm was good, with the exception of flexion of the hand and fingers, which was feeble. As regards cutaneous sensibility he could feel the slightest touch, and everywhere could distinguish between the head and the point of a pin. Sometimes the pain produced by a pin-prick seemed to last longer than normal, and sometimes he multiplied the number of points of contact; occasionally he appeared unable to distinguish between a hot and a cold test-tube when applied to the right arm. The head was inclined towards the left shoulder; he was unable to move it back beyond the vertical position. He could turn his chin better towards the left than the right side; this was due to pain in the neck rather than to muscular weakness. The fifth and sixth cervical spines were tender to pressure, but only to a slight degree; and the skin of the right side of the neck was a little more tender to pressure than that of the left side. There was no hyperæsthesia elsewhere. Both knee-jerks were present; the right was feebler than normal. On June 22nd the patient was shown at a meeting of the Neurological Society held in Manchester, and various opinions were expressed as to the nature of the lesion. At this time sensation was practically normal, and the neck tenderness was very slight; there was indeed no evidence that any of the cervical roots were involved. Most of those who examined the case regarded it as one of anterior poliomyelitis; one or two members of the society suggested the possibility of a new growth involving the cord. At the end of June weakness of the left arm became more marked, and the first dorsal inter-

weaker than before the operation. The retention of urine continued. On July 11th the patient was decidedly worse and almost completely paralysed. His face was flushed and his breathing was entirely, or almost entirely, diaphragmatic. Both arms were completely paralysed; the legs could be slightly moved by a voluntary effort, but such movement amounted to little more than a twitch. A most careful examination failed to indicate any trace of anaesthesia or of hyperæsthesia. The knee-jerks were absent. The breathing became more and more embarrassed and he died in the afternoon.

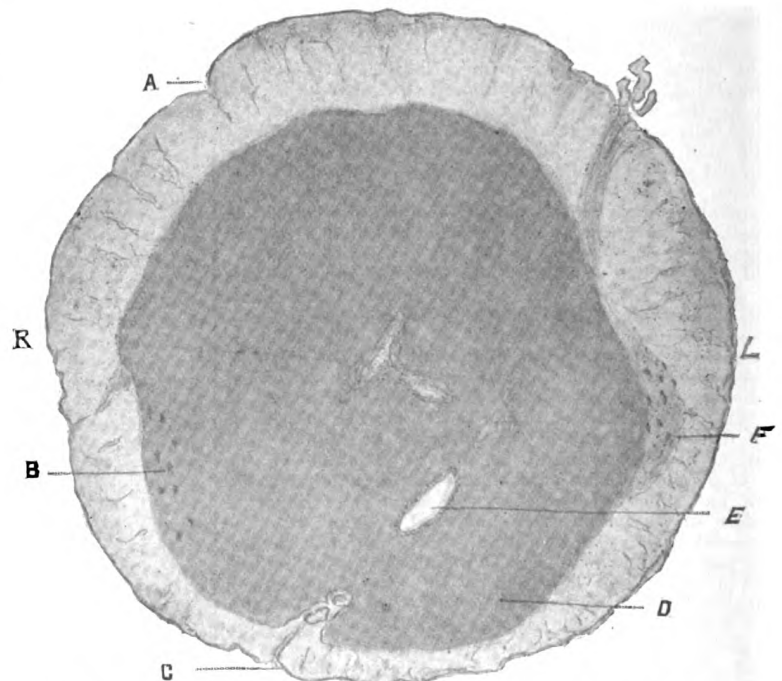
For the following pathological report I am indebted to Dr. F. C. Moore: "Body that of a tall, well-nourished, muscular man. Marked atrophy of the muscles of the right arm. The intra-thoracic and abdominal organs were apparently normal. The brain also presented a healthy appearance. The cervical portion of the spinal cord was greatly enlarged in its whole extent (Fig. 1). On section this was found to be due to the presence of an elongated ovoid mass of new growth which extended from the second segment to the commencement of the dorsal cord. At the upper and lower ends the mass of new growth gradually became thinner and terminated in a bent cone. To the naked eye the cut surface of the tumour presented a uniform greyish, semi-translucent appearance; peripherally it was invested by a thin layer of white matter. A section through the middle region of the tumour showed under the microscope that the new-formed tissue occupied the greater portion of the transverse area; it was completely invested by a narrow zone, varying in thickness, of nervy tissue. The growth approached nearer to the anterior than to

FIG. 1.



Shows enlargement of the cervical cord.

FIG. 2.



A, Posterior fissure. B, Ganglion cells of anterior cornu. C, Anterior fissure. D, New growth. E, Central canal. F, Anterior cornu.

osseous muscle was distinctly wasted. A blister formed on the palmar surface of the third finger, and a little later another developed on the dorsal aspect of the middle finger. After two or three consultations with Mr. Thorburn it was decided that a growth could not be excluded, and on July 9th Mr. Thorburn performed laminectomy. No growth was found outside the dura, nor was there any indication of bone disease. On opening the dura a great deal of spinal fluid escaped, but no lesion was discovered. After the operation the patient was quite comfortable and his breathing natural. He was unable to pass urine, which had to be withdrawn by the catheter. The evening temperature was 100° F. His condition remained favourable till the following evening, when his temperature rose to 103° and his breathing became hurried and distressed. The left arm was now much

the posterior surface of the cord, and nearer to the right than to the left side. In structure it consisted of a matrix of interlacing fine fibres containing a considerable number of cells, many of which were large and multinuclear; others were small and obviously belonged to the neuroglia. There were some scattered capillary vessels. The new growth was apparently a neuroglioma and had probably originated in the tissue round the central canal. The periphery of the tumour was well defined and sharply delimited from the investing nerve tissues. On the left side the cornua— anterior and posterior—of grey matter were drawn out antero-posteriorly and compressed laterally (Fig. 2). In structure they appeared quite normal, the large ganglion cells being unchanged. The left lateral column of white matter was compressed, but its area was probably not

diminished in size and its component fibres were unaltered. The left posterior column, also altered in shape, was not much diminished in area and was not degenerated. The anterior column was greatly attenuated and was represented by a narrow zone of fibres compressed between the bulging tumour and the pia arachnoid. On the right side of the tumour the grey matter was represented by a few scattered ganglion cells which were situated in the outer zone of the tumour. These few cells were normal in appearance. The lateral and posterior columns, though deformed, were apparently but little altered; probably, however, there was some destruction of their fibres owing to the encroachment of the tumour."

In the next place we must remember what Dr. Hughlings Jackson has so justly emphasised—namely, that symptoms are due as much to normal physiological functional activity imperfectly applied as to the actual loss of function occasioned by the lesion; in other words, that symptoms result, not only from the changes at the seat of the lesion, but also from the normal or perverted action of healthy neurons, as an indirect effect of the lesion. Thus the foot deformities met with in infantile paralysis are partly due to the unopposed action of healthy muscles, while the exaggerated movements of a tabetic patient depend to some extent on lowered tonus of the muscles through a cutting-off of sensory impulses from the motor neurons. An analogous phenomenon is the muscular atrophy which follows articular inflammation or that which occasionally attacks a hemiplegic limb. These effects probably result from inhibition of the functions of nerve cells. As another instance of inhibition may be mentioned cases of granular kidney unattended by dropsy in which when an attack of hemiplegia occurs the paralysed leg becomes cedematous. Furthermore, we may observe that symptoms represent both active and passive or arrested phases of disease. For example, we see two cases of what are called birth palsies. The patients have reached the same age and both exhibit spastic limbs and a certain degree of dementia. In one case the condition has been stationary for many years; in the other convulsive attacks have occurred every week or every month since infancy, and the mental functions have gradually deteriorated. In both cases there is permanent damage to cortical cells; in the first case this is all, and the physical health and the duration of life are not seriously imperilled; certain functions are lost by the cutting off of a part of the brain, as the functions of a limb are lost by its amputation. But in the second case living cortical cells are disordered and the manifestations of the disorder indicate the probability of a downward course. It is, then, the symptoms which testify to active phases of disease which, for purposes of prognosis, require to be carefully studied. They have a natural history of their own which calls for independent investigation and which is not as yet adequately explained by morbid anatomy. Very often, indeed, a group of symptoms is the only part of the disease known to us. To this we give a name and are said to have made a diagnosis. Thus to one group of symptoms we give the name of tetany, to another paralysis agitans, and to a third epilepsy. In epilepsy we assume that the cells of the cerebral cortex are at fault, but in tetany and paralysis agitans we know neither the site nor the nature of the lesion. In such cases as these accuracy of prognosis will vary with accuracy of observation in regard to symptoms. We require to have a thorough acquaintance first with types and, secondly, with aberrant forms. In short, we ought to know the natural history of the disease as revealed to us by its symptomatology. In these days, when the chemistry of nerve tissue and the pathology of the neuron are so keenly investigated, we may ask, Is the same ardour evinced by clinicians in the study of symptoms? Do we accurately note day by day the variations in the symptoms of cases, say, of myelitis or of locomotor ataxy? When we have done so we have been astonished to find how frequently slight variations may be detected even when the case is to all appearances a chronic one. We talk of the influence of the mind on the body and of the body on the mind as if their mutual relationships were well understood, but do we understand the meaning of the trophic lesions so often met with in the insane or the temporary improvements which sometimes occur in the subjects of organic disease who visit such places as Lourdes and Holywell? In one case of transverse myelitis known to me a man who was unable to walk bathed at Holywell. After the dip he was able to walk and the

next day he walked without crutches. The improvement lasted for 10 days and then the paralysis returned, when he came under the care of Dr. J. Dreschfeld at the Manchester Royal Infirmary. Such improvement is not more wonderful than the temporary improvement in insanity which follows the application of a blister to the neck. On the other hand, can we distinguish between the mental phenomena of visceral disease? For example, can we speak accurately regarding the various states of mental depression seen in stomach affections or differentiate the physical symptoms which occur in the later phases of lung and heart diseases? The more closely we study symptomatology the more we are struck by its complexity and by the necessity for greater care in making our observations and in forming our judgments. As already indicated, diseases of the nervous system may be divided into two groups, according to the presence or absence of visible morbid changes. A disease belonging to the group which is represented to us by symptoms only may have its course foretold as well as one of which the morbid anatomy is well known. A correct prognosis of any particular case of paralysis agitans is neither more difficult nor more easy to make than one of disseminated sclerosis. Prognosis depends less on our knowledge of pathology than on the accuracy of our experience with regard to symptomatology. But sometimes we observe a group of symptoms or a single symptom which, although it may give us a clue as to the part of the nervous system affected, does not enable us to make a diagnosis in any acceptance of the word.

Of isolated symptoms numbness is one of the most common. The subjective sensation may or may not be associated with slight anæsthesia. What is its significance? A married lady consulted me four years ago for numbness of the left arm and hand. On examination, I found slight tenderness over the fifth cervical spine and slight relative anæsthesia down the outer side of the arm. There was no hyperæsthesia and there were no other symptoms whatever. She was not hysterical and there was no evidence of gout, dyspepsia, or any other possible cause. She came again to me the other day; the symptoms were unaltered and she said that, in spite of massage and other treatment, the numbness had been present every day during the four years; in other respects she was quite well. I have seen several cases of numbness and slight anæsthesia, often of root distribution, sometimes in connexion with dyspepsia—as in one case where the distribution was along the inner aspects of both arms, in which the symptoms passed away after a few weeks. In the case just related there is no reason to suspect serious disease, but we cannot exclude it, we cannot deny the possibility that the agent at work is a pernicious one, which in another person might have led to a disseminated myelitis or other serious disease, instead of its action being checked as in the above case. The persistence of the numbness, especially as it is a sensory symptom, is remarkable, but perhaps not more so than the persistence of some cases of neurasthenia and of other so-called functional affections.

In contrast to the above case the following is of much interest.

CASE 2.—In December, 1893, a young woman consulted me for numbness of the feet and the left side of the face. Her manner was somewhat hysterical and I was unable to find any objective signs of disease. The numbness passed off in two or three weeks. Eighteen months later she consulted me again; she complained of much weakness and looked ill and thin, but the only definite evidence of disease was a distinct exaggeration of the wrist-jerks and knee-jerks. This symptom made me suspect the onset of disseminated sclerosis, and the other well-marked symptoms of this malady gradually developed, and she died three years later. In this case is the numbness to be regarded as an early symptom of the disease which ultimately declared itself in an unmistakable manner? Was it the result of exudations in the sensory path set up by the toxin of sclerosis or was it the result of some other cause? I am inclined to take the former view, although, speaking generally, I do not think that numbness *per se* is a symptom which is commonly of much significance, for nerve-tissue is often so unstable that a very slight alteration in the quantity or the quality of its blood-supply may lead to interference with sensory conduction. At the same time, numbness does indicate a disorder of the sensory path and therefore its presence suggests the necessity of making repeated careful examinations of the patient who suffers from it.

The first case of persistent numbness shows that a definite lesion of the fifth cervical root had existed for four years. Obviously the lesion was a very slight one; it might be the result of the constant action of some poison which showed a preference for that particular region, for of the curious ways in which poisons locate themselves there appears to be no end; while owing to our imperfect methods of producing elimination the local toxic effects may persist indefinitely. Indeed, it seems reasonable to suppose that almost any variety of cell or fibre may be selected by a poison as its seat of attack. Thus the poison of tetanus selects the motor nucleus of the fifth cranial nerve, nicotine picks out the optic nerves, lead some of the branches of the musculo-spinal nerves, while the toxin of influenza may attack almost any part of the nervous system. Reference to our knowledge of influenza would alone justify the assumption which I have made regarding the unlimited modes of selection exhibited by poisons in different cases. Paralysis of some of the eye muscles may be mentioned as another isolated symptom that is often difficult to understand. Some cases are met with apart from syphilis or influenza or other ascertainable cause.

CASE 3.—Last February, a man, aged 37 years, consulted me for double vision and general debility. He said that the symptom, "seeing double," was first noticed on getting up one morning, about a week previously; it was preceded by numbness of the fingers for two or three days. I found complete paralysis of the right external rectus, partial paralysis of the left internal rectus, and slight impairment of the movements of the right facial muscles; no other symptoms were present. The man was a clerk and had felt over-tired for some time. No other morbid antecedent than overwork could be discovered. I saw him again in March and in April, and on each occasion the symptoms were less marked. In May—that is, three months from the onset of his disability—no paralysis could be detected. The treatment consisted in the administration of strychnine and potassium iodide and in rest from work.

The significance of a numbness or a limited paralysis is hard to determine and a cautious prognosis must of necessity be given. Even if we knew the exact nature of the toxin we could not foretell the issue with certainty. Probably in a large number of what are called functional paralyses the minute lesions are quite different from those which constitute the initial stage of a serious disease such as disseminated sclerosis; but we must not regard complete recovery as a differential test; surely it is reasonable to believe that the minute initial changes of a serious disease may be removed and that no future developments will take place. I think that evidence in support of such a belief is afforded as we shall presently mention by a study of the course of serious organic disease. I would contend that the constant use of the term "functional" has hindered the advance of knowledge. Its implication that the changes at present invisible to us are of different nature to those at the onset of serious disease has alone sufficed to limit our view and to prevent our thoughts taking the direction just indicated. Similar remarks might be made regarding the use of the word "hysteria"; a discussion on this subject, however, is somewhat outside my present topic. It must suffice to remind you of the investigations of Buzzard, Bastian, and others, which have done so much to narrow the boundaries of hysteria, and to state my belief that increasing knowledge of pathology will tend to reduce its limits still further. Prolonged vascular spasm or some other lesion must underlie a profound anaesthesia or a contraction of the visual fields. What is meant by calling these phenomena hysterical? In some cases they persist for years, even throughout life, and when they disappear have we adequate knowledge of the subsequent nervous history of the patient? With regard to motor phenomena, such an authority as Charcot has stated that persistent hysterical contractures, after lasting for many years, may be attended with structural changes in the spinal cord; in one case he found a lateral sclerosis, which apparently he regards as a direct outcome of changes started by the hysterical contracture. I find it much easier to believe that from the very first there were minute definite changes to which any hysterical or psychical manifestations were secondary. Commonly enough, such manifestations are met with in association with and frequently overshadowing symptoms indicating organic disease. They are often misleading and tend to make us overlook the significance of a definite objective sign such as paralysis of a group of muscles. In my experience it is rare to meet with psychical paralysis, and when it occurs it is

weakness of a complicated movement rather than of individual muscles. Thus the power to stand or walk may be lost when the movements of the legs in bed are normally performed. We are told that such a patient is not shamming but is suffering from a genuine disease, hysteria; it is always difficult, however, to exclude the absence of real effort on the part of the patient.

I will now briefly relate the clinical histories of three remarkable cases of recovery from symptoms which indicated serious disease. In the first case hysterical manifestations were present, in the other cases they were absent.

CASE 4.—The patient, a girl, aged 22 years, was under my care at the Manchester Royal Infirmary from October, 1893, to May, 1894. There was a history of headache, of impaired vision, and of occasional partial losses of consciousness. On admission she was dull, apathetic, and hysterical. There was partial paralysis of the right arm and leg, and at times of the right side of the face. Optic neuritis was well marked, she suffered from constant headache, and pain was caused by pressing on the occiput and neck. At first cutaneous sensibility was normal, but at a later period there was partial anaesthesia down the left side; then paralysis of the right external rectus was noticed. Subsequently the hemianæsthesia disappeared and the left limbs became weak, but they were not so paralysed as the right limbs, which at one time seemed to be deprived of all power of voluntary movement. Optic atrophy succeeded the neuritis, and the girl became absolutely blind with the left eye and partially blind with the right eye. During this time the right knee-jerk was exaggerated and the left one was very feeble; there was no ankle clonus. In December—that is, three months after admission—double ptosis developed. In January the ptosis had disappeared as well as the paralysis of the right external rectus. In February she passed every night in a semi-conscious, delirious state. In March she was able to walk with assistance in a feeble manner. On leaving the hospital in May she went to stay with friends in London. Towards the end of 1894 Dr. C. E. Beevor wrote to me saying that she was an inmate of the National Hospital for the Paralysed and Epileptic in Queen-square. In reply to his inquiries I gave him the history of the case and said that if it had not been for the optic neuritis and the affection of the right sixth nerve I should have been inclined to regard the case as a so-called functional one. A few months later he wrote again, saying that her symptoms had become worse; vomiting and headache were severe, there was marked staggering in walking, double ptosis was present, and there was anaesthesia down the right side. Dr. Beevor thought that there was a tumour in the neighbourhood of the left occipital lobe and after a consultation with Mr. C. A. Ballance it was decided to trephine. Mr. Ballance operated and found nothing abnormal. The patient made a good recovery from the operation; the headache and vomiting ceased; the ptosis, however, and a loss of conjugate movement of both eyes to the left persisted, as also did the right hemianæsthesia. A few weeks later she became maniacal. But what was most interesting, wrote Dr. Beevor, her ptosis, conjugate paralysis, and hemianæsthesia all disappeared and her sight returned, so that she could read small print. "I am now inclined to agree with you that, except for the optic neuritis followed by atrophy, the case looks very like a functional one." The girl was sent to the Bethlem Hospital. Some 18 months later I was surprised to receive a well-written letter from her in which she stated that she was quite well with one exception—namely, that her eyes became painful after reading a few words.

Time will not permit me to comment on this remarkable case, but I would repeat that definite objective signs of brain disease were observed both in Manchester and in London, that they entirely passed away, and that the patient regained her health and was able to resume her occupation.

CASE 5.—This case, which I saw with Dr. J. Robinson of Dunscair in February, 1897, was one of spastic paralysis in a young woman, aged 22 years. She had suffered from numbness and weakness in the legs for three months before I saw her. Her gait was feeble and spastic in character. The flexor movements at the hip, knee, and ankle were weaker than normal; the extensor movements were fairly strong. The legs were very rigid; the knee-jerk was much exaggerated, and there was well-marked ankle clonus. The right abdominal reflexes were present, the left could not be obtained; the plantar reflex was absent. The cutaneous sensibility was unimpaired; micturition was somewhat

delayed. After a full consideration of the case I concluded that it was not one of hysteria and that the diagnosis rested between a dorsal myelitis and disseminated sclerosis, the latter being by far the most likely. The patient made a good recovery and Dr. Robinson informed me the other day that she was still quite well.

Is this an instance of mistaken diagnosis or one of recovery from serious disease? Let me insist on the character of the ankle clonus. It was well marked and quite different from the feeble loose variety met with in hysterical subjects, and with experience of other similar cases I am convinced that paralysis with a true foot clonus, apart from hysterical contracture, is occasionally recovered from. Dr. Buzzard has recorded cases in which apparent recovery from disseminated sclerosis has lasted four or five years; hence, it is not impossible that the patient referred to, who has been free from symptoms for nearly four years, is not entirely out of danger. As to the absence of the plantar reflex I have observed its occurrence in other cases of disseminated sclerosis. In one case which I reported some years ago the reflex was absent till towards the termination of the disease, and although I recognise the importance of the extensor response as an indication of affections of the upper neuron I do not regard it as a pathognomonic sign.

CASE 6.—This case was one of atrophic paralysis affecting a girl, aged nine years, whom I examined in October, 1895. Both feet were dropped and all the muscles on the front of the legs were paralysed and wasted. The knee-jerks were absent and sensation was normal; there was no affection of the bladder or of the rectum. A careful examination of the spine revealed nothing abnormal. The diagnosis seemed to rest between acute anterior poliomyelitis and a motor type of multiple neuritis. I considered the former diagnosis the more probable of the two and gave a cautious prognosis and prescribed massage and other local stimulating treatment. In a year's time the muscles had almost completely recovered their normal bulk and power. In response to a letter she came to see me last August, just six years from the onset of the disease. The girl had a robust appearance and her legs were quite healthy and strong. She told me that occasionally she walked rather clumsily and that she was subject to cold feet. The right knee-jerk was normal and the left was a little exaggerated. These symptoms seemed to support the original diagnosis and I am inclined to regard the case as an instance of recovery from acute anterior poliomyelitis.

I will now leave cases of doubtful nature in order to have time to consider the course of diseases in which the diagnosis is certain and where there can be no doubt that the symptoms are associated with obvious structural changes.

CASE 7.—Some time ago I saw a child, aged four years, in the later stages of tuberculous meningitis, who suddenly passed from a state of deep coma to apparent convalescence; for a few hours he was bright, spoke to his mother, and played with his toys and then relapsed into fatal unconsciousness. Such fallacious improvement in this disease is well known and would not deceive the skilled observer. It is worth noting, because it seems to indicate that the freely circulating toxin which produces the coma may have its effects temporarily arrested by an antitoxin, or in some other way, and taken in conjunction with exceptional cases of recovery from tuberculous meningitis it gives rise to a hope that some day an antitoxin may be discovered which will counteract the effects of the poison.

The next case I would refer to was seen by Dr. Dreschfeld and Dr. Little and was diagnosed acute disseminated myelitis after measles.

CASE 8.—The patient was a young woman, aged 18 years, who the day after taking a cold bath broke out with the rash of measles. Whilst recovering from the attack of measles she complained of intense headache, of weakness of the legs, and of pain in the back. It was found that she had optic neuritis, and in a few days she became totally blind. The blindness was followed by paralysis, first of the legs and then of the arm; their cutaneous sensibility was also markedly impaired. There was retention of urine, with occasional incontinence. Within a month from the onset of measles all four limbs were completely paralysed. A fortnight later motor power began to return and in about four months the girl was quite well.

A study of the course of chronic nervous diseases such as disseminated sclerosis, locomotor ataxy, general paralysis, and myelitis is also full of interest in connexion with our present subject. It teaches us that the downward progress, which unfortunately characterises the majority of cases, is

by no means made by a constant succession of regular steps. On the contrary, it presents a most irregular course, of which the variations are infinite both in kind and in time of succession. Arrest of a chronic disease may occur at any stage; and while, as a rule, it is only temporary, it may be permanent. We are impressed, not only with the rare complete recoveries which may occur, but with the stationary periods, with the periods of marked improvement, and with the disappearance of individual symptoms, and their replacement sooner or later by others of the same or different kind. These points have been so ably illustrated by Dr. Buzzard in his studies on disseminated sclerosis that I need not further refer to that disease except to state that I could give examples from cases of my own of the various phases he describes and of the risks to diagnosis from the presence of hysterical manifestations to which he draws such just attention.

The clinical histories of locomotor ataxy and general paralysis are prolific in instances of arrested progress and of alternating periods of improvement and breakdowns. Sometimes, as in the following case, prolonged improvement or apparent recovery may be followed by symptoms almost malignant in their severity and rapidity of progress.

CASE 9.—The patient, a man, aged 27 years, consulted me in August, 1891, and was subsequently seen by Sir Thomas Barlow. When first seen he had definite ataxia, shooting pains in the legs, delayed sensation, delayed micturition, and the knee-jerk was absent. Some of these symptoms subsided, especially the bladder disturbance. He went to Aix-la-Chapelle and was much benefited by the treatment. In September, 1892, he paid a second visit to Aix, and there was still further improvement. He was married in December and continued to improve steadily. In May, 1893—that is, nearly two years after I first saw him—he wrote as follows: "I have regained my power of work and no longer experience extreme fatigue or distressing symptoms of any kind. My gait in walking is practically normal and I can daily walk any distance with as little exertion as before the complaint overtook me. The only remaining symptoms I notice are anaesthesia in the toes and some clumsiness in running movements, which, however, is much less when the muscles are fresh than when they are tired. The knee-jerk is still absent." A few months later, however, fresh symptoms developed—namely, oedema of the ankles and some small perforating ulcers. He was sent to undergo Erb's treatment at Heidelberg. This did not answer at all; he had a succession of bad arthropathies affecting the hips, the knees, and the shoulders. A little later symptoms of general paralysis set in rather abruptly and he was sent to an asylum.

Additional interest is attached to this case owing to its etiology. It is certain that the patient had not acquired syphilis in the ordinary way; he had a protracted illness after vaccination in infancy, which the medical man who vaccinated him regarded as due to inoculated syphilis.

Similar varying phases characterise the progress of general paralysis.

CASE 10.—A medical man suffered from well-marked symptoms of this disease and his friends were advised to sell his practice. They did so. Subsequently he recovered to such an extent that he appeared to be quite well. He married, and remained in what seemed to be in good health for about a year; then he suddenly broke down with aggravated symptoms of general paralysis and died shortly after.

What is the pathology of these variations in progress? I would submit that they support the view of a general toxic condition rather than that which has recently been so ably advocated by Dr. Mott—namely, that in tabes and general paralysis the syphilitic poison has so lowered the vitality of nerve elements that they undergo a primary and progressive decay. Let me again observe that the course of these diseases is not steadily progressive, that a subsidence of symptoms is followed by fresh outbursts, and that apparent recovery is often suddenly interrupted by the development of acute symptoms in various parts of the body. Such fluctuations remind one in a way of the temperature chart of a prolonged case of enteric fever in which at irregular intervals a series of high temperatures alternates with a series of low ones, the high curve corresponding to a fresh development of toxins, the low curve corresponding to abatement of their action. It is difficult to understand how the ups and downs which are such marked features in the clinical history of chronic nervous diseases can be explained

on the hypothesis of primary progressive degeneration of neurons owing to exhaustion of their specific vital energy and apart from the direct action of toxins circulating in the blood.

#### PROGNOSIS IN RELATION TO TREATMENT.

If I am right in assuming that a poison is the most common exciting cause of diseases of the nervous system, prognosis will vary with knowledge of the proper treatment for elimination of the poison and of the effects produced by it. But in most cases we know neither the nature of the poison nor the manner in which it enters the circulation, hence treatment is purely empirical and often fails. When we do know what the poison is and how it is introduced into the blood, as in the case of lead, we can stop any further introduction of the poison and then try to eliminate what is already present. Our methods of elimination, however, are still too crude for the purpose. We may employ massage and baths, administer purgatives and alteratives, and place the patient under the best hygienic conditions, often without producing any immediate result, witness the persistence of some cases of peripheral neuritis or neuræsthenia in spite of the most energetic treatment and our inability to stop the progress of an early myelitis. In addition to remedies for the elimination of poisons we want others to aid us in counteracting their effects, and here we must hope for fresh discoveries regarding the effects of glandular extracts and the nature of toxins and their antitoxins. In this connexion the influence of one disease upon another is worthy of renewed investigation. Two examples may be mentioned. A boy with whooping-cough was attacked with most severe urticaria; the whooping-cough quickly subsided. A man whilst suffering from severe neuralgia on the right side of the neck had an attack of bronchitis. Its onset was associated with a sudden disappearance of the neuralgia.

The possibility that a second attack of the same disease may have a beneficial effect on the symptoms left by a first attack is suggested by a case which was recently under the care of Dr. Dreschfeld. A man whilst suffering from influenza began to show symptoms of grave mental disturbance. He talked incoherently, was dull and apathetic, and passed his excreta into the bed. In a few weeks he was sufficiently recovered to take a holiday. Two months later he resumed his business, but his mental vigour was much less than before his illness. Six months after the first attack he had another attack of influenza and was very much afraid that his former symptoms would return; but, to the astonishment of himself, his friends, and his medical attendant, he made a rapid recovery, lost all his old symptoms, and regained complete health, both mental and physical. We have, further, to study the influence of one part of the nervous system upon another part. Thus, a knowledge of the value of sensory impulses in maintaining the proper nutrition of motor neurones affords an explanation of the beneficial effects of massage, passive movements, and galvanism as stimulants to the regeneration of damaged nerve tissue. We also recognise the important influence that cheerful surroundings, sunlight, and other psychical stimulants may have upon morbid processes, and we admit the possibility that a powerful emotion may initiate a change for the better, either by stimulating the metabolism of diseased tissue or by opening up fresh paths for the transmission of motor or sensory impulses. As Dr. Mott points out: "Consciously and unconsciously, a continuous stream of impulses is pouring into the nervous system from without by the sensory channels, which are the avenues of experience and intelligence, and our bodily and psychical life depends upon the existence of such stimuli."

A consideration of these and of other facts which, as I have indicated, may be derived from a study of pathology and of the history of symptoms gives us hope for the future. It suggests that further investigations—clinical, pathological, and chemical—will do much to lighten the gloom which at present surrounds the prognosis of so many disorders of the nervous system.

**PLYMOUTH ROYAL EYE INFIRMARY.**—The formal opening of the Plymouth Royal Eye Infirmary took place on Oct. 30th, the ceremony being performed by Lady Mary Parker in the absence through illness of her mother, the Countess of Morley. There was a large gathering and the Earl of Morley made a strong appeal for subscriptions towards the deficit on the building, which amounts to £1300. £191 were subscribed at the meeting.

## An Address

ON

### THE PERSONAL FACTOR IN TUBERCULOSIS.

*Delivered before the Liverpool Medical Institution  
on Oct. 24th, 1901,*

By SIR DYCE DUCKWORTH, M.D., LL.D. EDIN.,  
F.R.C.P. LOND.,

PHYSICIAN TO ST. BARTHOLOMEW'S HOSPITAL.

MR. PRESIDENT AND GENTLEMEN,—It will not be denied that the art of medicine, and the science of pathology in particular, are at the present time largely dominated by conceptions derived from bacteriology. The progress of medical knowledge in the past has, with each fresh acquisition in any part of it, been commonly accompanied by a wave of enthusiasm which spread itself widely over the profession. In the face of any new revelations in science the tendency is to lose sight more or less of the older conceptions regarding the point in question. The lines of thought and action are henceforth projected vigorously in the new direction, and the older ideas, if not actually excluded, tend to be ignored or possibly forgotten. That this has occurred in respect of the doctrines of bacteriology can hardly be disputed, though all of us readily admit that these in themselves have constituted one of the most momentous triumphs of modern medicine. At such a time it becomes, as I believe, the duty of teachers of medicine to place these new doctrines in appropriate relation with those that have hitherto been held on the subject in question, and to indicate how the new teaching either supports or subverts the old. I have always agreed with the opinion expressed by the late Sir William Jenner that dogmatic teaching is essential for the student, and that it is unsafe, with a view to his future career, to allow many suggestions of doubt or any nebulous conceptions to occupy his mind. The faculty of apprehension and clear thinking has to be cultivated in the young. Doubts and difficulties will assuredly not fail to assail the mind in due time. Old or erroneous doctrines may then be more safely discarded and cut adrift, but they will be replaced by others; and the mature man, having learned to act on principles, will thus always have a faith to guide him. Otherwise he is apt throughout life to be the sport of shifting winds of doctrine and to be devoid of any firm or established principles.

I am led thus to preface the observations which I am about to make respecting the views which are at the present time much occupying the mind of the profession in regard to the modern doctrine of tuberculosis. We are apt to be enamoured by startling revelations in our art which disclose to us new vistas, and bid fair to herald the dawn of a day in which we are to be equipped with fresh powers wherewith to combat maladies which have hitherto baffled us. If we calmly take our course at such a time and are not so overcome by enthusiasm as to cast aside or to forget all the older conceptions that have been held on the particular subject we do well. I think that it must be admitted that some amongst us have been carried away by the latest teaching which has revealed to us the intimate nature of tuberculosis; that they have almost, if not altogether, lost sight of one of the most important elements concerned in the question—to wit, the *personal factor*, or the relation of the host towards the intruding and infecting parasite. Yet this is surely a matter of supreme importance. A perusal of most of the literature of the subject as presented to us to-day distinctly leads to the idea that human beings the world over are in constant risk of infection by tubercle bacilli, which are ever ready to alight upon them and to work out their malign developments in some fashion. I believe that there are not a few amongst us who are deliberately prepared to assert this view of the case. I propose in this communication to deny this conception, to try to indicate what manner of persons are those who most readily fall a prey to tuberculosis, and also to point out some of the conditions which prevail in those who manifest resistance to, or absolute immunity from, this scourge. We are familiar with the varying degrees of susceptibility to tuberculosis met with in different classes of

animals; in man there are evidently great differences in regard to predisposition to tuberculous infection, and the same varying degree of immunity is also witnessed in him towards many other infections.

In order to discuss this matter it is necessary to revert to some of the teachings of the older clinicians who had to face the problem in their day, and who, unprovided with the modern methods of research, formed opinions of weight and cogency, founded on close observation and a patient consideration of the facts which came before them exactly as they come before us. A study of their views should at once convince us that the whole field of clinical medicine is not covered by modern bacteriology, nor yet by modern pathology. As practising physicians we have to deal with humanity, that is, with individual human units, and the latter are not like so many ninepins turned off a lathe and out of one block. If we treat diseases and not patients, we may be scientists, but we are certainly not physicians.

It cannot be denied that the liability to tuberculous infection is limited, that certain persons are distinctly more prone to fall a prey to it than others, and that, happily, the majority of mankind presents a resistance to it, no doubt varying in degree, but in many cases amounting to practical immunity. It is surely important to recognise such facts, and to try to learn the significance of them if we can.

We have first to discover the peculiarities of those persons whose bodies afford a suitable nidus, or resting place, for the parasitic invasion and development of tubercle bacilli. This problem has only come before us since we have learned that a specific microbic and particulate element is the *causa vera* of tuberculosis. The older physicians had no such knowledge to guide them in their conceptions of the pathogeny of tuberculosis. The heredity of tuberculous disease was for them a fact which they could not dispute. Tuberculous parents produced children who sooner or later either developed the same malady or remained frail and delicate. This heritable tubercular tendency attached, as they believed, to the intimate textures of these individuals, and was ready, under certain provocation, to manifest itself in the lungs, skin, glands, or bones. Although they could find no morbid anatomy in such cases before the tuberculous process declared itself in some part of the body they regarded the quality, habit, and tendencies of these particular bodily tissues as differently endowed from those of robust persons void of this peculiar tendency. To this condition or diathetic habit of body they applied the term "scrofulous" or "strumous"—one seldom indeed met with in these days, and discarded for various reasons, none of which, I will add, appear to me to be justifiable. The word "scrofula" has always been offensive to the public and the term "struma" has often replaced it euphemistically. Both terms have almost ceased to have any significance in the professional mind since the discovery of Koch, and now we find it deliberately asserted by many pathologists that there is no such condition as that denoted by these words—that, in fact, struma is neither less nor more than tuberculosis. The recognition of Koch's bacillus has, in their opinion, compelled us to abolish the old conception of scrofula. No struma without tubercle bacilli, they affirm, and I suppose it will then be admitted that everyone infected with tubercle consequently becomes strumous. If this is the case, scrofula, as formerly understood, has necessarily ceased to be. As this idea has certainly been published and no one has ventured to offer objection to it so far as I am aware, I will strictly and absolutely deny this declaration. It is a narrow conception of the bodily condition denoted by the term "struma" to imagine that it is vulnerable alone to tuberculous influence, for it is oversensitive to all irritants and infections.

Let us inquire in detail as to the peculiarities of this condition of body as we recognise it clinically, for none but pure pathologists who are not practising physicians can possibly doubt its existence and wide prevalence. It is not in accord with modern teaching anywhere but in France to discuss or to appreciate any particular habits of body or diathetic conditions. These are now regarded as mediæval and effete lucubrations of the older physicians who evolved them out of their inner consciousness, as conditions which represent nothing that we, with our superior knowledge and attainments, can recognise nowadays. To hold such a view is, in my opinion, to be possessed of very inferior clinical instincts, and to be void of that accurate and penetrating observation which is necessary for the detection and comprehension of many morbid conditions which come before us.

According to Osler,<sup>1</sup> "scrofula is tubercle, as it has been shown that the bacillus of Koch is the essential element." As I have just remarked, many of our modern pathologists take this view. My friend Mr. W. K. Treves, of Margate, whose clinical experience is very large on this subject, and to whom I wrote for his opinion, believes that "scrofula is synonymous with tuberculosis in some form or other and that a scrofulous habit of body is already tuberculised." "Given no tubercular bacilli, there is no scrofula." He recognises, however, "a class of individuals who are especially liable to tuberculous disease in whom it is difficult to stop, and especially prone to recur." "They are flabby, inclined to stoutness, with a thick coarse skin, much cellular tissue, purplish or dusky complexion, and have a poor circulation," but he is not aware if such persons can be called scrofulous before they manifest tuberculous disease. He recognises, further, that these subjects are vulnerable to any variety of irritant and recover badly from injuries. "They are always catarrhal and suffer from congested and unhealthy throats." I am in full agreement with the latter observations. They relate to the class I have in my mind, to those who are as yet free from tuberculous manifestations, although especially prone to be infected. They are of a scrofulous or strumous habit of body, as yet untainted. We surely see many examples and we certainly cannot regard them physiognomically or texturally as types of any other condition than that of scrofula. To use Sir John Simon's<sup>2</sup> words, I would regard such subjects as "inheritors of an imperfect pattern of development" in the same way as we conceive others to inherit a disposition to gout, rheumatism, or cancer, "an inherited personal and particular law of development, which affixes a something peculiar and individual to their passage through each period of their existence."

Sir Thomas Watson<sup>3</sup> held the same opinions. "The formation of tubercle," he wrote, "is closely linked with the existence of the scrofulous diathesis," but he distinctly recognised scrofulous manifestations as occurring independently of tuberculation, and noted that the latter was modified by the variety of inflammation which existed in the scrofulous subject, a point that has received but little recognition anywhere. I will grant that the term "scrofulous" is inadequate to express all that is properly denoted by it. Originally, it was applied to the swollen condition of the neck due to adenitis and periadenitis, whereby the patient thus affected assumed somewhat the aspect of a breeding sow (*scrofa*), that is, void of the ordinary constriction of a human neck, and the term "struma" was also employed to denote a scrofulous swelling. But this condition, as rightly understood, is not expressed merely by a local adenitis, which is but one indication of it. A scrofulous habit of body means a great deal more than this. It may be etymologically correct to regard a cervical adenitis as scrofula, but from a clinical point of view we must have regard to a widely-spread and specific quality of tissues which is impressed upon the entire organism. No more classical description of the physiognomical features of this habit of body has ever been given than that by Watson. It was founded on shrewd observation, and the portraiture thus depicted is not seldom brought before us, and may be recognised if we will but honestly regard it. The two types of "pretty" and "ugly" struma are still with us, and we can plainly see that they are the products of the same disposition, though modified. With our present knowledge of the influence of hereditary syphilis on the bodily textures we have no need to regard the features of the "ugly" variety of scrofula as modified by that particular taint. It would be well if the younger physicians read and pondered Watson's lucid lectures on the scrofulous habit of body. Modern text-books completely ignore this teaching and appear to regard the whole question of tuberculosis as finally settled by Koch's discovery. This is certainly not the case. Albeit, we are not to expect to recognise the features of scrofula in their classical form in every example of it, but we may often discover the presence and influence of this constitutional frailty by a study of the ailments, and the special characters they assume, in those who are impressed by it.

The opinion of Sir James Paget on this matter was clear and decided. He defined "scrofula, or struma, as a

<sup>1</sup> Principles and Practice of Medicine, p. 280.

<sup>2</sup> Lectures on General Pathology, 1850, pp. 169, 170.

<sup>3</sup> Lectures on the Principles and Practice of Physic, fourth edition 1857, vol. i., pp. 195, 204; and vol. ii., p. 206.

state of constitution distinguished, in some measure, by peculiarities of appearance even during health, but much more by peculiar liability to certain diseases including pulmonary phthisis. The chief of these 'scrofulous' diseases are various swellings of lymphatic glands, arising from causes which would be inadequate to produce them in ordinary healthy persons. The swellings are due sometimes to mere enlargements, as from an increase of natural structure, sometimes to chronic inflammation, sometimes to more acute inflammation or abscess, sometimes to tuberculous disease of the glands. But besides these, it is usual to reckon as 'scrofulous' affections certain chronic inflammations of joints, slowly progressive ulceration of bones, chronic and frequent ulcers of the cornea, ophthalmia with extreme intolerance of light, but with little of the ordinary consequence of inflammation, frequent chronic abscesses, pustular cutaneous eruptions frequently appearing upon slight affection of the health, or local irritation, habitual swelling and catarrh of the mucous membrane of the nose, and habitual swellings of the upper lip. .... Certainly these are not all tuberculous diseases." <sup>4</sup> The term "scrofula" includes, he declared, some diseases which are, and many which are not, distinguished by the production of tuberculous matter. Alluding to the proposal to make "scrofulous" and "tuberculous" commensurate terms, he considered it to be doubtfully practicable. "The relation between the two is that the scrofulous constitution implies a peculiar liability to the tuberculous diseases, and that they often coexist." "Many instances of scrofula exist with intense and long-continued disease, but without tubercular deposit, and as many instances of tubercular disease may be found without any of the non-tuberculous affections of scrofula."

These opinions were published long before the discovery of tubercle bacilli, and it has still to be shown that all the alleged scrofulous disorders just described are aroused by, and dependent upon, tuberculous invasion or its influence in any form. I greatly doubt if this can be proved. No one would venture to assert, for example, that ciliary blepharitis, so common in strumous children, is dependent on tuberculosis. We must then regard it strictly as a variety of strumous inflammation. Paget was cautious in stating that the substance found in lymphatic glands commonly known as "scrofulous" matter could not for certain be known as truly tuberculous matter or degenerate lymph or pus. We can tell now whether this be so or not, and may discover that sometimes we are dealing with the one and sometimes with the other.

In discussing this question, Professor Clifford Allbutt <sup>5</sup> remarks: "Whether scrofula is always due to the tubercle bacillus, or always associated with it, is not yet decided. It seems probable that scrofula may arise by the agency of microbes other than tubercles; again, that, originating independently of tubercle, on it tubercle may afterwards supervene; and, once more, that scrofula may be due to tubercle, primarily or even exclusively. No doubt these problems will soon be settled." These hypotheses indicate a shaking of the old faith which has occurred since Koch's discovery. I do not believe that we have sufficient justification for a change of opinion on this matter. We see more clearly how certain conditions, induced either by inheritance or by acquirement, provide a suitable soil for the specific infection. <sup>6</sup> Respecting acquired conditions which may render persons of originally good constitution liable to tuberculous infection, we know that these are all of a character to induce a lowered vitality and so to render the bodily textures unfit to resist the onset of tuberculosis. The inherent immunity appears to cease with a lowered standard of health, more or less according to the nature of the debility and the degree of intensity of the infection. I hold, then, that a scrofulous person is not, and need not be, a tuberculised person.

We meet with another class of subjects who present a marked resistance to tuberculous invasion in those who manifest a proclivity to gout. In the offspring of gouty parentage and

ancestry it is most rare to meet with any strumous indications or disorders. Tuberculosis in a gouty subject is rarely witnessed and, in my experience, its progress is either very slow or apt to be arrested. There is thus a manifest antagonism between a gouty and a strumous proclivity. We may further note that a line of treatment which is appropriate to those who are goutily disposed is unsuitable for strumous subjects, and that what is bad for the gouty is good for the scrofulous—to wit, animal food and wine. The presence of a strain of gout in a strumous subject is thus a saving grace for the individual, modifying the tendency and course of any manifestation of the latter in a favourable way.

I maintain, then, that there is a class of persons who by inheritance, or acquirement, owing to various debilitating conditions, are frail and delicate, endowed with a specific proclivity to become gravely affected by irritants of all kinds, and especially prone to infection by tubercle bacilli. Such persons are of delicate constitution and are apt to manifest this delicacy in various ways throughout life, such developments indicating their scrofulous habit of body. They may never become tuberculous, although always scrofulous. The latter proclivity may blend with other habits of body and seriously modify the ailments induced by them. We have not to wait for tuberculous invasion to occur before we pronounce them scrofulous, since they carry with them the features and characteristics of the scrofulous condition beforehand.

It is therefore a question of tissue or soil-proclivity in the particular host which is to harbour the tuberculous microbe. The ailments of the strumous individual are not necessarily of a tuberculous quality, and the error in modern teaching, as I believe, is to assert that this is the case. When tuberculosis occurs at any point in a strumous subject we must certainly regard it as such, but we have no justification in assuming the existence of it before such manifestations are present. Some have imagined that the indications of scrofula, as properly recognised, are due to the existence of some pre-existing condition of tubercle bacilli in the tissues, but we have no knowledge of such a condition, nor, indeed, of the extra-corporeal stages or environments of the bacillus anywhere. It has even been asserted that the hereditary transmission of the microphyte constitutes the unique and exclusive method employed by nature to propagate tuberculosis, but these organisms are then in a purely passive or latent condition. If no active tuberculosis occurs during the life of the affected individual the germs are supposed never to have been aroused into activity. <sup>7</sup> This is, of course, a pure hypothesis and cannot be accepted without absolute proof (Cohnheim and Baumgarten). We have some trustworthy facts to support the belief that the foetus in utero may be directly infected by tubercle bacilli. Women suffering from advanced phthisis have borne children in whose organs—lympharia, liver, spleen, lungs, and endocardium—have been found bacilli of tubercle. The placenta is infected in these cases and is doubtless the medium of contamination. Dr. J. W. Ballantyne of Edinburgh, who has reported cases of this kind, believes that the problem of tuberculous heredity pertains to the germinal period of intra-uterine life, <sup>8</sup> and wisely remarks that "a healthy placenta is the best friend that the foetus of a tuberculous mother can have." <sup>9</sup> With these facts before us we cannot deny the direct transmission of tuberculosis as a possibility, but there is no reason to believe that such instances are of common occurrence, and we can in no way admit that they alone constitute the type of case which should be regarded as scrofulous, for these infected subjects are either still-born or, if born alive, not viable. A similar transmission is met with, though rarely, in the calf.

I have already quoted the opinion of Osler to the effect that "scrofula is tubercle," but I find that he materially qualifies it, if he does not practically deny it, by adding, "After all, as Virchow pointed out, increased vulnerability of the tissues, however brought about, is the important factor in scrofula." That is exactly my contention.

There remain to be mentioned, amongst causes which diminish resistance to tuberculous invasion, or in other words, promote proclivity or vulnerability to it, the abuse of alcohol, the occurrence of syphilis, of saccharine diabetes,

<sup>4</sup> Lectures on Surgical Pathology, second edition, 1863, p. 321. Clinical Lectures and Essays, second edition, 1879, p. 421.

<sup>5</sup> System of Medicine, 1897, vol. iv., p. 597.

<sup>6</sup> Professor Martius of Rostock (German Association for the Advancement of Science and Medicine, Hamburg, September, 1901) recently expressed the opinion that heredity, as regards tuberculosis, did not necessarily mean that the tubercle bacillus was present in the spermatozoon or the ovum; it meant the transmission of predisposition to tuberculosis, and there was abundant evidence to show that predisposition existed. On this point Dr. Percy Kidd's article on "Phthisis Pulmonalis" in Allbutt's System of Medicine (vol. v., p. 171) may be consulted.

<sup>7</sup> Dr. R. R. Ballota Taylor: La Porte d'Entrée pour la Bacille de la Tuberculose, Transactions of the International Medical Congress, Paris, 1900.

<sup>8</sup> Vide Allbutt's System of Medicine, vol. v., p. 173.

<sup>9</sup> Lecture at the Polyclinic, London, 1899.

and of cancer, the latter proving inimical to the spread of it, as Dr. Sidney Martin has pointed out, even if the condition induced by it tends to invasion of the body.

I have alluded to the specific changes accompanying tuberculosis which are witnessed in scrofulous subjects. The process is modified in them, and the associated inflammatory products tend to soften and break down. In the case of gouty subjects the process is varied; there is less tendency to soften, and the products tend towards sclerosis, fibrosis, and calcification, thus inducing arrest and obsolescence of the lesions. We thus see how the particular habit of body avails to modify the phenomena and course of a definite infecting process. I maintain that these facts in pathology are now too much lost sight of, and that we have been of late too much concerned with the bald facts of bacteriology and infection in regard to the whole subject of tuberculosis. We must turn aside and consider the condition of the host in this matter.

We may, I believe, regard it as certain that for the production of tuberculosis two factors are necessarily concerned: (a) the parasite, and (b) the nature and condition of health, or diathetic habit, of the host. Our modern pathologists "reckon without their host." We fail in comprehending many pathogenic conditions if we disregard the personal factor in each case. Thus, uricæmia as one factor does not explain the production of gout; rheumatic poison as a single factor will not explain the production of chorea. In these and other morbid states, the condition of the organism, attacked or invaded by matters which are toxic to it, has to be reckoned with, and its determining influence for good or for evil is of supreme importance. If we pay due heed to this question, we cannot fail to see that our duties lie in the direction of fortifying by all means those subjects who from any cause are more than others prone to infection. Our warfare is not to be confined to the parasite alone. We do well to intercept it and to destroy it everywhere. But we have also to make our frail and predisposed subjects robust by securing for them appropriate environment and adequate and suitable dietary, and to follow up their special ailments with assiduity till recovery is well established. We come too late into action if we wait till the enemy has entered the gates. We have to anticipate his assault and to challenge his entry. If we do this, and thus pay due regard to the personal factor in tuberculosis, which, from a clinical standpoint, as I maintain, we are bound to do, we shall not improbably do more to avert this terrible scourge from humanity than by any other course of procedure we may decide to follow.

Lastly, I will venture to say that we hear too much in these days of the so-called "cure" of tuberculosis. This is an improper term to apply to cases of this disease which have progressed favourably and in which the local disorder has become quiescent. As we well know, there may not seldom be a recrudescence and a relapse of the process at any period during the lifetime of the patient. We are not entitled to regard the most favourable termination of tuberculous lesions as constituting anything more than an arrest of the process, as has been well pointed out to us by Dr. James Edward Pollock, Dr. C. Theodore Williams, and, more recently again, with all the weight of his authority, by Virchow. If we can determine the peculiar habit of body and predisposition of the affected individual, we may sometimes be enabled to frame a more certain prognosis as to the quality and completeness of the arrest in particular cases. More than this we cannot do.

## THE FREEZING-POINT OF THE BLOOD AND SECRETIONS AS AN AID TO PROGNOSIS.

By ALEXANDER OGSTON, M.D. ABERD.,

REGIUS PROFESSOR OF SURGERY IN THE UNIVERSITY OF ABERDEEN;  
CONSULTING SURGEON TO THE ABERDEEN ROYAL INFIRMARY.

THE use of the thermometer in medicine and surgery has already been of much value in the study of disease, and though in some respects, such as surface thermometry, it has not gained for itself a recognised position, yet the appreciation of the information obtainable by the use of the clinical thermometer has become steadily greater as our experience and knowledge of it have extended.

Another employment of thermometry, in quite a different

direction, has recently been introduced on the continent, and is destined, I think, to attain a very high place in the estimation of the clinician, whether medical or surgical, on account of the valuable data which it is able to afford us regarding certain questions, otherwise scarcely to be solved, which call for an answer when grave decisions regarding prognosis and treatment are to be reached. I refer to the use of cryoscopy, or the determination of the freezing-point of fluids.

Van't Hoff and Raoult pointed out that fluids freeze at a lower temperature in proportion to the quantities they contain of impurities dissolved in them; and Korányi, applying the law to the blood and urine, showed that normal blood possessed a fixed freezing-point of  $0.56^{\circ}$  C. below that of distilled water which forms the zero of that thermometrical scale. From this point it does not vary more than by one-hundredth of a degree up or down. Urine is not so steadfast, varying in its freezing-point about a whole degree, from  $-1^{\circ}$  to  $-2^{\circ}$  C., in proportion to the solids which it contains in a state of solution.

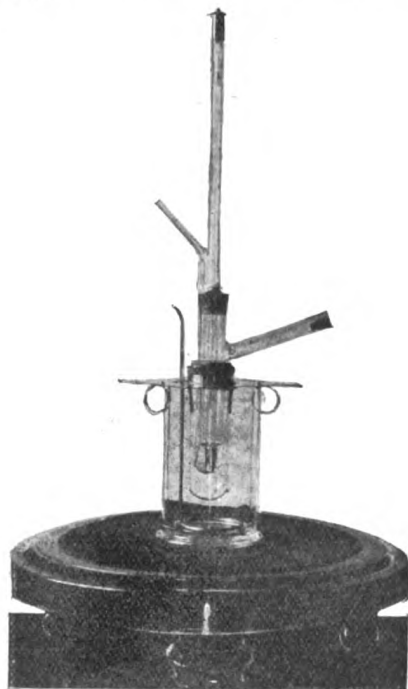
Korányi's observations have been applied to the study of abnormal blood by many German and French writers—Lindemann, Dreser, Richter, Roth, Senator, Claude, Balthazard, and Kümmell, particularly by Kümmell, an eminent Hamburg surgeon. Their conclusions may be thus briefly stated. So long as the blood is healthy and has its effete constituents adequately eliminated it retains, as already said, its normal freezing-point—viz.,  $-0.56^{\circ}$ , or within  $\frac{1}{100}^{\circ}$  of that figure, varying, that is to say, from  $-0.55^{\circ}$  to  $-0.57^{\circ}$ , but if elimination becomes defective the freezing-point sinks below this—to  $-0.58^{\circ}$ ,  $-0.60^{\circ}$ , even to  $-0.71^{\circ}$  in one case observed by Kümmell.

The attention of these observers appears to have been mainly directed to the purification of the blood effected by the kidneys, regarding the measurement of which our present knowledge is admittedly defective and where consequently the value of cryoscopy promises to be great.

That our present information regarding kidney elimination is inadequate is constantly felt by surgeons where renal disease is present in a patient requiring operation. We strive in such a case to ascertain how much disease exists; whether the amount of healthy kidney substance be still sufficient so to purify the blood that our operation wounds will heal well; further, whether the lessened kidney elimination that follows operations, especially if performed under an anæsthetic, superadded to the already existing defect, is likely to kill our patient; and, lastly, where the kidney itself is to be operated on, whether the other kidney be sound enough to take over the eliminative work of the two organs. To all these questions, hitherto imperfectly answerable, the use of cryoscopy promises to furnish a definite and satisfactory reply. I believe, too, that it will prove to be of no less value in determining the existence and degree of hepaticism, when threatening danger to life or imperilling operations, a condition regarding which little that is satisfactory has hitherto been written although its importance is acknowledged by every surgeon of experience.

The determination of the freezing-point is carried out by Beckmann's apparatus (see illustration), consisting of a jar of ice and salt into which dips a large test-tube, into the mouth of which is inserted through a perforated cork a smaller test-tube about an inch in diameter, so that an air-chamber is left between the tubes. The fluid to be frozen is put into the inner tube. The thermometer used is Beckmann's thermometer, the scale of which has a range of only  $6^{\circ}$  C., each degree being divided into hundredths, the numbers running from  $0.00^{\circ}$  to  $6.00^{\circ}$ . On this scale the zero, that is, the freezing-point of distilled water, has first to be found, distilled water being for this purpose placed in the inner tube and the thermometer plunged into it until its bulb is covered. The freezing mixture cools the fluid and the mercury first falls down to, and then descends a couple of degrees or so below, the freezing-point. At the moment at which congelation begins the mercury rises again quickly and within a few minutes attains a steady maximum, which is the true freezing-point. During this observation the fluid is kept constantly stirred by a ring-shaped platinum stirrer that passes down between the inner tube and the thermometer. If the zero thus found be above the six degrees given on the scale a little mercury is shaken off the column into a reservoir which exists for the purpose at the upper end of the thermometer; or if, on the other hand, it be below the scale, some mercury is shaken

from the reservoir into the column until the zero falls somewhere in the upper end of the scale. This point is then noted, and all calculations of temperatures below zero are found by subtracting from it. If, for instance, the zero were  $4.01^{\circ}$ , then the normal freezing-point of blood is  $3.45^{\circ}$ , that is  $0.56^{\circ}$  lower.



Beckmann's freezing-point apparatus.

In cryoscopy of the blood the sample to be tested may be drawn from any large vein about the hand, wrist, or forearm, or in the usual venesection position at the bend of the elbow. It may be drawn directly into the apparatus or, better, into a stoppered bottle where it can be secured until the cryoscopy is conveniently applicable. Coagulation makes no difference to its freezing-point, which is found in the manner just described for obtaining that of distilled water. When once the zero of the thermometer has been accurately determined it is necessary that it be carried very gently and subjected to no jarring or agitation, lest its correctness be impaired by shaking mercury into or out of the column. As the instrument is made of Abbé's glass, the zero remains without alteration from subsequent contraction.

Other fluids of the body besides the blood may be tested by cryoscopy. Kümmell applies the process to the urine from both kidneys as it is passed from the bladder, or to that drawn off from a single ureter, and combines it with the administration of phloridzin, &c., thus testing the eliminating power of the organ. Personally I have also so employed it, but have ceased to use it, as the freezing-point fluctuates more than an entire degree, thus giving no better indication of the quantities eliminated than may be obtained in much less time by taking the specific gravity. I have also used the method, or endeavoured to do so, in testing the saliva from Steno's duct, but it is difficult to apply and has no special advantage. But in regard to the blood it would be difficult, I think, to exaggerate the usefulness of cryoscopy, or the accuracy of the information which it places at our disposal. Brief notes of some of the cases where I have found it useful may render this evident.

CASE 1.—The patient had for three years been recovering from an attack of double interstitial nephritis, and traces of albumin were still always present. The specific gravity of the urine was 1020 and he was so strong and well that he desired to resume his studies for the Church. His blood froze at  $-0.53^{\circ}$ —i.e.,  $1\frac{3}{8}^{\circ}$  higher than normal. He resumed his studies.

CASE 2.—A patient under the care of Dr. J. Stephen of Peterhead wished to undergo a radical cure of an inguinal hernia. His urine was free from albumin or sugar and he

appeared to be a very strong man; but a slight yellowness of the conjunctiva suggested hepatism, that insidious foe of the operating surgeon. His blood froze at  $-0.58^{\circ}$ —i.e.,  $1\frac{3}{8}^{\circ}$  below normal. The operation was declined and a truss was fitted. He died four months later. This patient would certainly, save for the cryoscopy, have been operated upon, and probably with a fatal result.

CASE 3.—A patient who was under the care of Professor W. Stephenson wished to undergo an operation for relapse of a ventral hernia after a previously attempted radical cure. Her blood froze at  $-0.72^{\circ}$ —i.e.,  $1\frac{3}{8}^{\circ}$  below normal, her urine at  $-1.775^{\circ}$ . In this case the usual routine urine examination detected glycosuria and the cryoscopy merely confirmed the existence of the disease. Operation was declined and a truss was used.

CASE 4.—A patient under the care of Dr. T. B. Gibson with symptoms of unilateral renal disease, probably calculous, where radiography had failed to reveal anything, in whom the analysis of the catarrhal urine showed a specific gravity varying between 1004 and 1018, but whose general condition made the prudence of an exploratory nephrotomy questionable, had cryoscopy applied to the blood. It froze at  $-0.54^{\circ}$ —i.e.,  $1\frac{3}{8}^{\circ}$  above normal. Operation was therefore decided on so soon as the patient's circumstances permitted. Here it is to be noted that while the cryoscopy of the blood furnished a satisfactory verdict that of the urine was as indefinite as its specific gravity, for it varied between  $-0.46^{\circ}$  and  $-1.49^{\circ}$  in the same day.

CASE 5.—The patient was under the care of Dr. J. D. Wyness. He suffered from bladder paralysis due to many years' neglect of a cicatricial stricture that admitted only minute bougies. The stricture was dilated and the bladder paralysis was treated by Dr. J. R. Levack with faradisation without removing the paralysis. The patient lived a catheter life, but without any trouble. His urine had a specific gravity of 1010, contained no sugar or albumin, and the question arising whether he should resume his ordinary life and work it was answered in the affirmative by the freezing-point of his blood, which was  $-0.56^{\circ}$ .

CASE 6.—The patient who was under the care of Dr. R. S. Turner of Keith, had a cystic fibro-sarcoma of the left kidney as big as a child's head. She was 71 years of age, and the propriety of operation had to be determined. Her urine had a specific gravity of 1016 to 1015, was free from sugar, but sometimes contained traces of albumin, sometimes none. The freezing-point of her blood was  $-0.556^{\circ}$ , faintly above normal, and hæmacytometry showed the red blood corpuscles numbering 4,560,000 instead of 5,000,000 per cubic millimetre, while the leucocytes were four times more numerous than they ought to have been. The cryoscopy of the blood did not alone, perhaps, decide in this case whether the operation for removal of the tumour was or was not justifiable, but it was slightly unfavourable and enabled a truer view of the patient's condition to be obtained than was otherwise practicable. The decision was against operating, at least in the meantime.

CASE 7.—A patient under the care of Dr. J. Pender Smith of Dingwall who was operated upon for cæcal cancer lost strength steadily after the operation. The urine had a specific gravity of 1021; it contained no sugar, but was albuminous. Here the blood cryoscopy, which showed a freezing-point of  $-0.49^{\circ}$ , or  $1\frac{7}{8}^{\circ}$  above normal, showed that the kidneys, though diseased, were not the cause of the deterioration.

CASE 8.—A patient under the care of Dr. Ashley W. Mackintosh suffered from retention of urine due to an old urethral organic stricture admitting a catheter of No. 6 English scale. The urine had a specific gravity of 1006 and was albuminous. His blood froze at  $-0.59^{\circ}$ , or  $1\frac{3}{8}^{\circ}$  below normal, showing that the kidney elimination was imperfect, and that, though apparently a strong and healthy man, he was approaching uræmia, and was an unfit subject for treatment by operative measures.

CASE 9.—The following case bears on the subject of hepatism. The patient, who was under the care of Dr. Gibson, had an *évident* of a suppurating bursa of the great toe carried out under chloroform. The anæsthetic produced great general disturbance, jaundice, vomiting, and stomach disorder. The urine, which was of specific gravity 1026, was albuminous, but there was no sugar, while the blood froze at  $-0.62^{\circ}$ , or  $1\frac{3}{8}^{\circ}$  below normal, a result due to the liver disturbance more than to that of the kidneys.

CASE 10.—The patient, who was under the care of Dr. A. Mitchell of Old Aberdeen and of Professor J. T. Cash, was

suffering from an old empyema. She was greatly wasted by suppuration and amyloid disease, with albuminuria, 238 grains of urea being eliminated per diem by the kidneys. She had clubbed fingers, and she appeared to be in an evil case. But the cryoscopy of the blood showed  $-0.57^{\circ}$ , or only  $1\frac{1}{2}^{\circ}$  below normal, and an extensive operation was successfully ventured upon on the faith of that observation.

CASE 11.—A patient under the care of Dr. W. Hector of Tarland had prestatic hypertrophy and violent cystitis as the result of many years of disease. Irrigation and catheterism answered for a time, but hæmaturia of an obstinate nature set in. Double vasectomy cured the hæmorrhage and greatly diminished the enormous prostate. But the pain and cystitis recurred, and the patient's sufferings became so violent that bladder drainage through the perineum was inevitable, whatever the consequences might be. Albuminuria, with urine of a specific gravity of 1010, left the renal condition uncertain; but cryoscopy of the blood showed  $-0.61^{\circ}$ , or  $1\frac{1}{2}^{\circ}$  below normal. Still the operation was absolutely necessary to relieve the pain, which narcotics and all other measures entirely failed to do. It was followed in a few days by uræmia and death.

CASE 12.—The patient, who was under the care of Dr. C. Adam of Elgin, had suffered from phlegmasia dolens for some years and had recovered, but lately the swelling had recommenced. No phlebitis or lymphadenitis was found, but a mere trace of albumin and a low specific gravity (1002) of the urine threw suspicion on the kidneys. This was confirmed by cryoscopy of the blood, which showed its freezing-point to be lowered to  $-0.59^{\circ}$ , a condition due, almost certainly, to defective elimination by both kidneys.

These 12 cases, to which I might add more, illustrate the services which cryoscopy of the blood is in a position to render under circumstances in which we have hitherto had little more than conjecture to aid us and they justify the expectation that the method will soon be universally adopted. In Cases 1, 4, 6, and 7 it will be noted that the blood froze from  $1\frac{1}{2}^{\circ}$  to  $1\frac{1}{2}^{\circ}$  above its normal point. Cases 6 and 7 were hydremic, but Cases 1 and 4 showed no signs of either that or anæmia. Possibly a condition of unusual purity of the blood may exist, with a higher freezing-point than normal, but what is the significance of such an elevation of its freezing-point in these cases I am unable to say. It will, I suspect, prove to be a symptom of disease. In Cases 2 and 9 the lowering of the freezing-point was clearly owing to hepatic, not renal disease, and I am of opinion that not the least valuable import of cryoscopy will be its power of indicating otherwise undetectable disease of the liver, at least in the practice of the operating surgeon.

References.—Kümmell: Münchener Medicinische Wochenschrift, Oct. 30th, 1900, p. 1525. Beckmann: Zeitschrift für Physikalische, Chemie, vol. vii., p. 323. Kümmell: Verhandlungen der deutschen Gesellschaft für Chirurgie, Cong. 29, p. 314. La Cryoscopie des Urines, Le Mois Médico-Chirurgical, February, 1901. For the following references I am indebted to Dr. Lindley Scott:—Claude and Balhazard: Journal de Physiologie et Pathologie, 1900, II., pp. 766, 804, 831, 963. Presse Médicale, Feb. 17th, 1900, No. 14, p. 85. Bernard: Presse Médicale, 1900, II., No. 74, p. 159. Bouchard: Journal de Physiologie et Pathologie, 1899, p. 537. Albarran, Bernard, and Bouquet: Cryoscopie, Association française d'Uroscopie, Paris, 1899. Veillard: Cryoscopie, Paris, Rauff et Cie, 1900. Friedenthal: Centralblatt für Physiologie, xiv., p. 157.

Aberdeen.

## THE SANATORIUM IN THE TREATMENT OF PHTHISIS.<sup>1</sup>

By T. CLIFFORD ALLBUTT, M.D., LL.D., D.Sc., F.R.S.,  
F.R.C.P. LOND. AND IREL.,

REGIUS PROFESSOR OF PHYSIC, UNIVERSITY OF CAMBRIDGE;  
PHYSICIAN TO ADDENBROOKE'S HOSPITAL.

My interest in this subject was first aroused by Dr. Archibald Smith, of Lima, with whom I had some acquaintance in the "eighteen-sixties." He spoke, for the first time in my experience, with confidence of the curability of the disease, especially as treated in the mountains of Peru. These new hopes were fortified by Henry Bennet, with whose methods and results I became familiar, both in his writings and in personal association with him at home and in the Riviera. The first records, of any considerable

value, of the effects of various methods of treatment of the disease were published by Dr. C. J. Williams and Dr. Theodore Williams in 1871, records which did much to instruct and to encourage us. Bennet's influence drew me away for a time from the High Alps as a climate for phthisis, but in 1878 I, after occasional observation of a few cases treated in the Swiss Alps, made the acquaintance at Davos of Dr. Unger and Dr. Ruedi, and I then formed great anticipations of the value of Alpine climate—anticipations which 25 subsequent years have strengthened and formulated.

At that time climate seemed to us to be the paramount factor in the cure; so our admiration was the greater as the remarkable results obtained by Brehmer at Görbersdorf rose into repute, results in which climate played but a secondary part. Brehmer's method, to which nothing important has been added by later physicians, brought the cure of phthisis from a remote and costly achievement, attainable only by wealthy and leisurely patients, near the doors, I had almost said into the homes, of poorer sufferers given up to death. We did not realise the facts which the computations of Birch-Hirschfeld and others have placed beyond question, that then, as now, many persons were recovering from pulmonary phthisis under our eyes; our eyes were not open to see it.

By the modern method we are not only curing the individual, but we are also laying the chief stone of the edifice of prevention. This modern method we may call the method of Brehmer; but it is called more commonly the sanatorium method. To this name some objection has been made; it is said that the method may be carried out independently of the sanatorium. We cannot be guided by the etymology of names—no name can indicate all the connotations of its subject; but I think that this objection is a shallow one. The method was worked out in a sanatorium created for the purpose, it has been tested and perfected in sanatoriums, and if now it can be carried on outside a sanatorium, which is not too readily to be admitted, this is so only by bringing the skill and the conditions of the sanatorium into the home. I should look with little confidence on the home treatment of a phthisical patient by a physician unversed in the practice of the sanatorium, and by a patient who had not had at least a month's training within its precincts. It is, as it were, to tell a boy at home to read his Cæsar and his Xenophon, a little Euclid and algebra, to pat him on the head, bid him be good and industrious, and promise to call in a week or ten days to see how he has got on.

It is no paradox to say that in the congregations of the sanatorium we have learnt individual treatment; that from institutions which may well sink into the thralldom of routine, or lend themselves to the grosser temptations of the hotel-keeper, has issued the doctrine that for the individual sufferer no vigilance is fastidious, no skilled control vexatious. From a highly specialised system we have learnt that for phthisis there is no specific—not even climate; that to speak of the best climate for phthisis, of the best mode of feeding, or again of the best disposal of rest and exercise, is to speak vainly. For scrofulous children, as a rule, the best climate is the sea; for the adult in the third or fourth decade of life the climate of the high Alps, less windy than the sea, even more tonic and perhaps having some virtue in its dryness and rarity, is often the best; the elderly must be content with a milder and more equable resort, which indeed is to be preferred also for many younger patients whose stomachs are unequal to large demands, and whose heat production is slow. On the robust folk full feeding may be pressed quickly; with the enfeebled, whose stomachs are often relaxed, large and rich meals best agree when they are vomited. To the febrile and overwrought again that prolonged rest, which in vigorous and apyretic persons would be lost time, is precious.

The sanatorium, if on the block system, should stand south-east, on a dry upland site sheltered by pine woods, 200 yards at least away from the building. The front should be slightly crescentic. Most of the rooms should be single, a few may be double for special needs. All must be on the front, the back being given to the service, and to the accommodation of an occasional visitor. The smaller the bedroom, within limits, the better, lest it be used as a sitting-room, whereas it is but a shelter for the bed and for dressing and undressing. There should be no general sitting-rooms, which encourage indoor gossip, except, of course, a dining-room and a spacious and airy entrance-hall on the south front. Every room should have its covered

<sup>1</sup> A paper read before the British Congress on Tuberculosis, Section II., Medical, including Climatology and the Sanatorium.

balcony, wide enough to take the long chair (or bed) and a table, separated by glazed screens from those next to it, and supplied with convenient electric light. The balcony is the living room of the patient. Airing galleries may be provided for the few who may like them, but they have social and other disadvantages. The balcony, if raised a step or two above the bedroom floor, will not shut out much light from the window below, at any rate not in winter, when the sun is low. Of walls and furniture I will only say that the doors should be double and the walls and floors without angles and well pugged; that wardrobes should be built in the walls, flush with them and the ceiling; that linoleum, with felt under it, makes the most comfortable and the cleanest carpet. The window must occupy the greater part of the south wall, and sliding shutters with louvres must be provided to darken the room for light sleepers, and against stormy weather. Heating is a great difficulty. Open fires, if practicable, are by far the best means of heating. If impracticable the walls should be heated by flues. To heat the air to be respired is wrong, both in principle and in practice. If so-called "radiators" must be used, the radiator must be set against an opening in the outer wall, and the air led over it into the room so as to enter the room at the bottom. Hot air rises, and, do as we may, the inmate of a room so heated is hot in the head and cold in the legs and feet. The roof must be warm in winter and cool in summer. If all passages and corridors be well and equally warmed the heating of the chambers will need less attention.

It is undesirable that patients should take their principal meals in the private room and a dining-hall must be provided; but I have received a bad impression of the dining-rooms of most of the sanatoriums which I have visited. Either they are a whirlpool of draughts, wherein the poor patients can scarcely keep their hair on, or they reek with foul odours. The director of a sanatorium, in many ways admirable, lately ushered me with pride into a handsome dining-hall whose close atmosphere was so thick with the reek of departed dinners that I sickened on the threshold and, muttering some excuse, made my escape. Most of these halls are much too high and not thoroughly air-swept; others are ordinary apartments with the windows taken out, so that the patient must dine in a hurricane, bolting his food and surrendering whatsoever charm dinner might yet have for him. Saloons should give place to sheds or bungalows with sliding walls of louvred shutters which can be adapted to the wind of the day, and afterwards quickly thrown open for coffee and cigarettes, when each patient can sit where he pleases.

If, in obedience to the needs of municipal or other public bodies, such sanatoriums must be built to receive more than 50 patients a physician must be engaged for every multiple of 50—the largest number of patients to which any man can do well. Let us not tolerate again the farce of so-called medical attendance which still persists in many asylums for the insane, to the grievous loss of science and to the detriment of the sick. But in my opinion sanatoriums are designed so large and costly as to deter the benevolent and to encumber the treatment. A hut or villa system in the grounds about a central administrative block is cheaper, more homely, and more efficient. The Japanese house is a good model. The difficulty of ventilating large blocks is insuperable; they will beget the secretary-director, and lead to a barrack or hotel system. Tents are useful, but for temporary purposes only. Ordinary dwelling-houses converted into sanatoriums are makeshifts at best, and unsatisfactory at that.

I repeat that it is vain to talk of a "best climate" for phthisis, even for those who can go where they please. Sun is an amenity and a cordial, but does not directly contribute much to the cure. At Davos the patients do as well in the darker as in brighter winters. Gabrilowitch, at Halila, compared the reports for the winter six months with those of the summer six months, and found that the winter patients did considerably better than the summer patients, the bracing air of winter, in spite of less light, being more restorative. For the most general terms in which climatic conditions can be put is that the coldest air which the individual can tolerate, if it be dry, clear, and still, is the best, as it calls for more food and thus stimulates the appetite. But in an air so cold as to be very stimulating to a patient of 35 years of age, a patient of 55 years of age would shrivel up. Thus it is for the younger patients of fair vigour that the high Alpine airs are the best; say for vigorous persons under 40 or 45 years of age without much bronchial irritation. At Davos it is wonderful to

see a wan listless youth for the first few days picking daintily at his half-eaten meals, and 10 days later devouring all before him. At lower altitudes some urgent feeding may be needed, but in any fresh open air a naturally good feeder soon regains appetite; and to force him before nature calls is too often to lose a week or two in an attack of indigestion. In England, Norfolk, Suffolk, and Kent offer the best climates for the phthisical. A poor eater does badly in any climate and under any stuffing. Appetite again much depends upon the preparation of the food, especially among the wealthier classes. The meals, even in the more luxurious sanatoriums, are too often badly cooked and badly served, good as the raw materials usually are. The dishes and plates are cold, the meats are tepid, and the coffee and tea are scarcely fit to drink. All bread, rolls, and cakes should be baked in the house. A variety of dishes, again, as city diners know, tempts to repletion; yet sanatorium cooks do not stand alone in their contentment with a narrow round of menus, which, attractive enough at first, begin, perhaps after a week or two, to pall upon the palate. The physician of a sanatorium should be something of a cook and much of a gourmet.

For the encouragement of scientific work in sanatoriums, which in the nature of the case are far from the advantages of large towns, there should be central committees. Such a committee in England—let us say a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis—would organise the methods of reporting, would suggest the kind of information needed, would circulate scientific results among these institutions, and would point out the many directions in which investigation is needed. Excellent work of this kind is now done in a few sanatoriums, but there is a fear lest the medical officers should fall into the supine routine of too many of the asylums for the insane. Or, again, work may be active but ill-directed. Every sanatorium deservng the name has its laboratory; but how much valuable time is wasted in the counting of bacilli! Such computations are necessary from time to time, no doubt; but daily or even weekly fluctuations are too dependent on temporary contingencies to be worth much, and there are more important things to be done. For instance, I may suggest examinations of the blood, the comparison of its cells, and of the fluctuations of its specific gravity; the study of its sera for agglutination, toxins and antidotes, and their relation to the tuberculin; the attenuations of virus by inoculation and other methods; the estimation of the virulence rather than of the number of bacilli in the sputa; the evidences of mixed infections such as cocci in the blood; the investigation of the possible harm of re-infection by tubercle, as, for example, by soiled fingers, tooth-brush, or swallowed sputum; the secretions of the stomach at various phases of digestion; examinations of the urine for toxins, for the comparison of ingestion and excretion, for the influence of fever and of exercise on metabolism; and so forth, *ad infinitum*. Many a worker on such subjects in a remote sanatorium would feel the moral tonic of the help and association of a central scientific committee. Again, in all public or semi-public institutions there should be a bench in the laboratory where any pathologist, neighbour or visitor, could avail himself of the material either for research or for self-improvement. I attach importance also to the establishment of some connexion between the district medical officers of health and the sanatoriums; but this is a long story.

I am guilty of no extravagance when I suggest that one-third of you who hear me, wittingly or unwittingly, are, or have been, infected with tubercle. Some of us, ailing indefinitely, may have been the innocent means of infection to others, so secretly stalks infection in our midst. Every trustworthy report from sanatoriums—and herein I must compliment our colleagues of Germany on such reports, the last in my hands, and this not the least, being that from the sanatoriums of the Hanse Towns—every such report, I say, emphasises anew the remarkable success of Brehmer's system, on one condition—namely, that the patient be caught at the outset of his disease. Happily for me, it is not within the sphere of this paper to ask what provision is to be made for advanced cases, whether for their own comfort or for the safety of the public, this is a matter of State Medicine; but it is my duty to reinforce your demand that advanced cases, save in a few overwhelming infections, shall cease to occur. There has been much supineness in the matter of early diagnosis—a supineness bred of pessimism, of despair; let us bring the inspiring message of optimism, of

enthusiasm. Let every physician, however modest his sphere, remember that upon his alertness depend the lives of the infected and the stamping-out of infection. The incipient case of to-day is the advanced case of to-morrow. On former occasions I have said that a case presenting the ordinary first stage symptoms of the out-patient room, if for our fathers an incipient case, is in our eyes an advanced case; yet too often still the family practitioner waits till the physical signs are evident to a second year's student. What consultant has not felt his heart sink as, in the so-called incipient case, the "consonating r  le" fell upon his ear? Medical men who have no ear for music ought to distrust themselves a little in auscultation. Not long ago a physician, as honest as he is accomplished, told me that he could not perceive a difference of percussion which I estimated at quite a quarter of a note; he lamented his lack of an ear for music. Early diagnosis depends, however, less upon this detail or that, more upon the cumulative evidence of many indications which the family physician is in the best position to appreciate. The features of the individual do not carry much weight with me, excepting, of course, such acquired features as scars in the neck, or the thick nostrils and upper lip due to the catarrhs of childhood. Many persons of so-called tuberculous aspect never fall victims to the bacillus; many of robust appearance are attacked. Never let muscular strength, ruddy cheeks, or a well-formed chest blind us to canker within.

Whosoever complains of being overwrought, of being "off colour," as the phrase goes, in him suspect phthisis, cough or no cough. Let no hamoptysis, however slight, be set down to a "blood-vessel in the throat"; let no pleurisy, however long ago, be forgotten. In examining the sputum, if any there be, we shall not take the absence of bacilli as an assurance of safety. In young children we may find some occasion of examining vomit for bacilli. If there be no fever, a high mean pulse-rate with low arterial pressure will keep us on the watch, especially if therewith there be some loss of weight, an unusual tendency to sweat and languor after exertion. Indeed, we shall not admit the absence of fever until we have taken the temperature in the rectum every two hours of the 12 of the day, and particularly after exercise. To an  mia, to dyspepsia, to vague pains in the chest, if we shall not give more than their due weight, we must not give anything less. Percussion, which must be made on the bare chest of the patient, sitting on a wooden chair without cushion, must be made with a light finger, and the notes must be estimated not so much by absolute pitch as by an attentive comparison of the two sides. Even if both apices be affected the notes of the two are never identical. I would ask you if comparison of the percussion notes in respiration and in expiration is of importance? The larynx should always be examined, if only for loss of colour. The Roentgen rays, so anxiously tested by Dr. Walsham and others, have not yet proved to be of use in doubtful cases. The spirometer, valuable for comparative records in the various stages of a patient under treatment, is of no use in early diagnosis. Attempts to plot out curves of fever characteristic of tubercle or mixed infections seem not yet to have met with much clinical success. Of tuberculin in diagnosis I have had little experience; in one case, however, it was a great help to me; yet tubercle sleeping in many of us, if not by its use awakened for mischief, might give some ominous answer in its dreams.

The next question I would submit for consideration is that of the mean duration of residence in the sanatorium. The degrees of cure are three—namely, arrest, obsolescence, and *restitutio ad integrum*. To consider this last is to be too curious. Nay, even if we make obsolescence our term for discharge we shall nip sanatorium treatment in the bud, at any rate for the poorer classes. To bring about obsolescence of phthisis, even of the first stage, we need, in my opinion, two winters and one summer at least—say, 18 months—and in saying this I am astonished at my own moderation. In many cases three winters and two summers will be needed. But how many, even in the easier classes, can sacrifice this time without breaking up their careers and abandoning the ties of home? Such, nevertheless, is the advice which for many years I have had to offer to those who have consulted me; and this opinion I must still give if we are to be satisfied with nothing short of obsolescence. But during the last few years, during which time statistics, such as those of Dr. Turban and of Dr. Trudeau, have been given to the world, since we have had to reckon with what is practically possible in the provision of sanatorium accommodation, and

to consider if it be worth while to spend money on a vast scale for cures beyond our compass, my own views have undergone a change. Herein I have been much impressed by the distinction which our German colleagues have drawn between "*wirtschaftliche Heilung und wissenschaftliche Heilung*";—as we may express it in English, between a pathological cure and an economical cure. What is meant by a pathological cure we know, as we know also that the means of such cures are unattainable save by persons of wealth and leisure, and not by all even of these. Keeping our minds fixed upon the first stage—for we will not admit that physicians will continue to let cases drift into the second without sanatorium treatment—it appears that after a certain time patients may be allowed to return to clean homes and wholesome occupations so far improved, and, what is quite as important, so deeply imbued with sanatorium methods, that most of them will hold their ground for some years, and many will ultimately recover. To fix a term for the individual case is, of course, impossible; but, now that large numbers have been dealt with, a mean term may fairly be demanded of us by the paymasters of these resorts. Some sanatoriums put the mean term at three months, which seems to me too sanguine; others put it at six months.

When we try to apply some general rule to the individual case, to estimate for the patient and his friends how far he will fall within the mean or without it, we must be guided by certain individual features. For instance, if fever continue after the first 10 or 14 days the mean duration of residence will be exceeded. How long may fever continue, and yet the patient do well? In view even of an extreme term, is it any use keeping a patient in the occupation of a bed if the fever has not subsided, say, in four or six months?—for we may have 6 or 8 per cent. of such cases. Rapidity and instability of pulse are adverse symptoms. Sugar or albumin in the urine is, of course, of bad omen. Poor feeders do badly. Toppers do badly. Young patients not out of their teens do badly on the whole; and so, again, do patients in the later decades of life. A steady gain of weight is, of course, hopeful, but patients may gain weight while retrogressing in respect of local disease. I have expressed the opinion that tuberculous pedigree does not tell against the case prognosis; but herein Sir William Broadbent differs from me. Pregnancy is, of course, a very unfavourable complication. Gout I regard as a very favourable one. An obedient patient of tranquil temperament has a much better chance than the wayward or fretful. As to physical signs—I have not worked in a sanatorium; but on my fragmentary experience I think that if on admission there were crepitations at one apex these ought to have dried up in a month or six weeks if the patient is to be discharged in three months; at which term the physical signs should have become fairly negative. As to bacilli, these pests seem to persist indefinitely in many patients discharged and otherwise doing well. In bronchiectatic cases, on the other hand, they may not be found. I attach more importance to a diminution of the quantity of the sputum. Upon such data as these I think the chances of the individual case in respect of the mean stay may be calculated, say, after the first month's residence? That the presence of tubercle in other organs is a very grave factor in the prognosis I need not say; cases of slow scrofula with pulmonary complication often indeed do remarkably well, but in most other cases of multiple diseased organs I have had disastrous experience. Multiple deposits in the lungs themselves also in their degree forbid the more sanguine hopes. However, if sometimes we are disappointed by the ill results of a case in which we had looked for better things, on the other hand, it happens, more frequently, I think, that cases in which we had not dared to hope much gratify us by revealing an unexpected power of recovery. Thus the cruel face of Nature may break into a smile.

It is only by means of the kind reception that many sanatorium physicians have given me, and of the free and generous manner in which they have allowed me to share their thoughts, that I shall dare to-day to discuss treatment in sanatoriums. I will begin by quoting the words of him to whom my debt is the greatest—viz., Henry Bennet. In 1866 he wrote of the physicians of his time: "They dare not apply to their patients the ordinary rules of hygiene; they dare not give plenty of animal food; they dare not give fresh cool air day and night; they dare not keep the skin clear and cool by cold or tepid sponging. .... Their patients when they go to health resorts think they ought to take exercise, and they do so. .... They think it did them good

when well, and will do so now when they are ill; but they merely walk themselves into the grave." If I quote no more than this, does not that which I have read tell us how enlightened a forerunner was Bennet in the treatment of phthisis? And now we are tending to drop into the opposite routine of idleness and stuffing. So hard is discrimination. Whatever our treatment, let us first take such order with ourselves that it shall not be treatment of the abstraction Phthisis, but of the individual victim of tubercle bacilli, of which victims no two are identical. Such discrimination means well-paid physicians, and many of them. I repeat, let us not fall into the routine of asylums for the insane, wherein the public authority has always been seeking how far it can reduce the salary for which it can get medical men to apply, and, having got them cheaply, how many patients it can make them attend to. Let not the public act in sanatoriums, as it acts in asylums and hospitals, as if, that is, the public had itself found out how to cure diseases and had engaged a few medical men to carry out its own ideas.

As in other diseases, so in phthisis, the first task in undertaking a cure is to clear up arrears. When the patient comes under care, in most cases at any rate, he has drifted into physiological debt. He has mortgaged his estate, has overdrawn his banking account, has bought raw material at forced prices and paid for it with bills renewable at heavy fines. Our first duty, then, is to straighten the account; and it is astonishing how much is to be done by reducing expenditure, by husbanding profits, and by clearing off arrears. Every patient, febrile or not, should rest for ten days or so until the physician can reckon up the balances. And let it not be forgotten that the stomach, indispensable as it is, indeed, because of its indispensability, needs rest too—that is to say, it must be nursed. To thrust a heap of food into the stomach of a worn or exhausted human machine is to court failure; fortunately, such is the tolerance of the human body the patient is often quit of such an error for 10 days' indigestion and "biliousness," when the food has to be moderated after all. Now I do not often read in the reports of cases, amid their long lists of physical examinations, records of the dimensions of the stomach before and after meals, which I regard as one of the most important of these examinations. In weak and febrile patients the walls of the stomach are almost always lax, so that the food is delayed in the viscus, and tends to ferment there; especially if the secretions of the peptic glands are attenuated; under the internal pressure the organ gives way more and more, and may not recover itself in the hours of emptiness, or indeed, if feeding by frequent snacks is advised, may never become empty. Not long ago I saw such a patient, stuffed on the most modern principles; his medical attendant was annoyed that he positively declined to eat, that he was nauseated, and was losing ground rapidly. On examination of the emaciated body we were able not only to map out but even to grasp a large pendant stomach as full of food as a haggis. How long it had been full I do not know. For the first few days let rest be rest all round, stomach included; then, after the varying dimensions of the organ are known, the food may be increased according to the energy of the individual. Another warning I would give is to watch carbohydrates with care. Feeble stomachs digest these materials with less activity, and they tend to generate flatulence. Man at bottom is carnivorous. I think milk is given too profusely. The bulk of liquid has two dangers: first, it impedes digestion by diluting the gastric juice and distending the stomach—at any rate, in non-febrile cases where liquid is not so quickly disposed of; and, secondly, it adds to the mass of the blood which the heart, often ill-nourished, has to lift. For my part, I rarely find the need of forced feeding—now and then a patient is fastidious, but the secret of forcing the food is to put the patient into open air as cool as he can bear it, and if the cook is a good one the appetite in hopeful cases will come back of itself. On my first visit to Davos, when I found myself at table with 30 weather-beaten people eating like wolves, I exclaimed to Ruedi, "But where are your patients?"

Food has two ends to fulfil: to compensate fever, if, that is, fever be present, and to nourish the body. Feverish patients will dispose of more liquid than the non-febrile; and as in them the stomach is usually relaxed the food must be in frequent small quantities. Gabrielowitch, in a series of careful experiments, has shown that in the phthisical, and not in the febrile only, the weight falls with

surprising rapidity between meals if these are at too long intervals. This fall he finds best marked at nights between supper and breakfast. It would seem, then, that so long a fast, however wholesome for the sound, is not desirable for the sick. As he epigrammatically puts it, "Irritability and sleeplessness are the hunger of the phthisical." When fever has disappeared, and the patient has regained his normal weight, the physician, by close watching of the scales, will be able to return to ordinary meals at the usual intervals. There are now no more arrears to make up, only the balance of waste to repair.

Of alcohol Bennet well said, "Even when it is prescribed medicinally there is always the risk of abuse. It is a double-edged sword." For a few days, occasionally, when the patient flags, when his skin is cool and damp, when his pulse is feeble, when his digestion is slow, and when after meals he is depressed in spirits, it is helpful; as a rule it is not needed. It is our duty, then, as pathologists, knowing that liquorish habits favour tuberculosis, to discourage the still prevalent notion that without alcohol a sick person can never regain strength. There are many lives to throttle out of this cat yet. All patients, without exception, must rest both before and after meals; the latter they remember, the former, which is at least as important, they are apt to forget. Patients liable to vomit food must take their meals in bed. Exercise may be insufficient; indolence may lead to padding with fat rather than to hard condition. Stalled fat cattle are more subject to tuberculosis than the leaner kine on the hillside. The restoration of the heart degenerated by toxins is to be brought about by regulated exercise, and in no part of the treatment is the discrimination of the sanatorium physician more indispensable. On massage I would invite opinions: in former years when more patients remained under home treatment I thought it very beneficial; since the departure of our patients for the sanatorium I have had little further experience of it. I would ask particularly whether massage is inadmissible during moderate fever?

In the earlier days of Davos hydropathy had some vogue, especially the douche. On these means also I would invite discussion. I have found much good in the wet sheet, and the wet pack may be helpful in fever.

The use of gymnastics in the treatment of phthisis is little understood. That in certain phases of disease of the lungs gymnastics must be inappropriate needs no insistence. For instance, he would be a brave man who ordered lung gymnastics in a case of softening or recent hæmorrhage. In phases of softening, again, the risk of suction of septic matters from one part of a lung into another would forbid all exertion likely to cause forcible inspiration. At high altitudes it would seem that the larger volume of the inspirations promotes insensibly an expansion of the lungs too gradual to bring about this peril. In healing stages, when softening has ceased and the lung is drying and laying down protective fibre, may not gymnastics, under supervision as skilled as for cardiac disease, do much to expand and thus to call into healthy function the parts which the tubercle has spared? I seek the answer from those who are dealing daily with these problems.

To admit that there is no drug endowed with specific virtue in phthisis is not to admit that drugs are never useful. For the most part the open air will reduce fever, will prevent sweats—whether due to fever or debility—will promote appetite, and will calm and fortify the circulation. But it is not to be forgotten that during liberal feeding gentle laxatives, and especially an occasional mild mercurial alternative, prove valuable; that a drop of an arsenical solution may settle an irritable stomach, a few drops of strychnine may brace up a slack one, and so on; but I have no faith in courses of drugs, whether antidotal, tonic, or topical, save, of course, in laryngeal cases, which, as the part can be got at, are to be treated locally from the first.

Finally, I must protest against the emptiness of mind which certain reformers would enforce upon their patients. I feel sure that a lack of tranquil occupations and amusements conduces to introspection, and, moreover, is not without grave peril to the moral life. Most of the patients we have to treat depend for their livelihood upon habits of industry; young folks may be sent to a sanatorium at the very time when the habits of life are forming, and it is deeply to be regretted if to the calamity of tuberculous infection must be added a dissipation of those virtues of energy and method upon which our happiness depends. During phases of bodily incapacity submission to the inevitable takes the form of a duty, unfortunate as the loss

of time may be; but vapid hours and aimless days may break up the hardly won discipline of a careful education, if it do not abandon the thoughts to wantonness. The vacuous looks and aimless wanderings of the patients hanging about the precincts of some sanatoriums have impressed me painfully. Vigorous games are rarely suitable; but surely there are occupations, such as gardening, the fine arts, literature, natural history, and quiet handicrafts, which to those free from fever would be beneficial. Perhaps even the visits of teachers in the arts and sciences would not prove so wildly exciting as to throw the population into a fever.

I will sum up the chief questions which I have propounded.

1. Can mixed infections be recognised from fever curves?
2. Can we distinguish between economical (*wirtschaftliche*) healing and complete (*wissenschaftliche*) healing? if so, what is the mean term of residence for the economical healing of early cases?
3. How long in certain active cases, say from 6 to 8 per cent., is a febrile patient to be kept to bed in the reasonable hope of recovery? For instance, in a public sanatorium are we justified in retaining patients who have been confined to bed for six months, five months, or even for four months?
4. What estimates of improvement and what rules of prognosis can be based upon physical signs alone?
5. Is multiple tuberculosis, for instance, in lung and testicle too hopeless a condition for a public sanatorium? How far is it comparable with an equal extent of mischief in one organ?
6. Of what use, if any, is massage?
7. Of what use, if any, is hydrotherapy?
8. Are special pulmonary exercises appropriate at certain stages of progress? and if so, when, and under what conditions?
9. Must we repair the body at the expense of the life of the mind? Can we not give even some educational value to the sanatorium besides the medical drill of it?

## A FURTHER CONTRIBUTION ON ACUTE DILATATION OF THE STOMACH,

WITH AN ACCOUNT OF TWO ADDITIONAL CASES.

BY CHARLES R. BOX, M.D. LOND., F.R.C.S. ENG.,  
ASSISTANT PHYSICIAN TO ST. THOMAS'S HOSPITAL AND TO THE LONDON  
FEVER HOSPITAL;

AND

CUTHBERT S. WALLACE, F.R.C.S. ENG.,  
ASSISTANT SURGEON TO ST. THOMAS'S HOSPITAL AND TO THE EAST  
LONDON HOSPITAL FOR CHILDREN.

WE have been led by the perusal of a paper on this subject by Dr. Campbell Thomson<sup>1</sup> and the discussions and letters which have recently appeared on the subject to make this addition to a paper published by us in the Transactions of the Clinical Society of London in 1898. In this paper we tabulated and briefly abstracted 16 cases of this rare and fatal condition and reported two new cases, one by the courtesy of Mr. Walter Edmunds and one which had come under our own observation. Since the paper was published other cases with quite typical symptoms and running fatal courses have been recorded by W. H. Brown,<sup>2</sup> Kirsch,<sup>3</sup> and T. B. Appel.<sup>4</sup> Abstracts of these cases may be found in the *Medical Review* of the same year, with a reference to a case published by Fenger.<sup>5</sup> These and additional cases are also given in Mayo Robson and Moynihan's work on Diseases of the Stomach. An attempt was also made to collect cases of the same disease which did not prove fatal. This was difficult, but we found and abstracted the accounts of five cases which appeared to be instances of the disease in question. Care was taken to exclude all cases in which mechanical obstruction at the pylorus was present. Although it appeared to us at the time that the same train of symptoms might follow in cases of this kind, yet we felt that in discussing the cause, symptoms, and diagnosis of the disease it was better to deal with uncomplicated cases only. The two additional cases which we wish to record are as follows.

**CASE 1. Lacerated wound of the knee-joint; cellulitis of the leg and thigh; ultimate amputation of the limb; acute dilatation of the stomach and of part of the duodenum.**—The patient, a male, aged 29 years, came under observation in 1900 with a lacerated wound of the left knee, opening the joint. A large amount of grit was ground into the wound. The injury was the result of a railway crash, the patient attempting to enter a train in motion and his leg being dragged between the footboard and the platform. The joint wound gave considerable trouble, pockets of pus forming both above and below the joint. Later an arthrectomy was performed and ultimately, on account of severe and repeated hæmorrhage, it became necessary to amputate the thigh. This was about a month after the accident. The patient at the time was extremely collapsed and hardly responded to intravenous infusion of saline fluid, or to brandy or strychnine injections. The bowels were not confined but there was no marked diarrhoea. Unfortunately, no note was made as to the presence or absence of vomiting.

The post-mortem examination was made 17½ hours after death. The only marked visceral abnormality was the condition of the stomach and duodenum. The stomach was dilated and was very prominent. Its upper border was not displaced. Its lower border extended well below the umbilicus. The dilatation was not confined to the stomach, for the first part of the duodenum was dilated to twice its normal size. The dilatation extended to the place where the duodenum came in front of the lumbar spine. The stomach contained a little fluid and some odourless gas.

**CASE 2. Pleuro-pneumonia with severe toxic symptoms; acute dilatation of the stomach and duodenum.**—The patient, a man, aged 24 years, had previously had no serious illness and came of a healthy family. On May 27th, 1901, after playing cricket, he shivered and shortly afterwards noticed a pain in his left side which caused a "catch" on breathing. On the third day of the illness he was admitted to St. Thomas's Hospital, evidently very ill and with a temperature of 104° F. Over the lower lobe of the left lung percussion resonance and vocal fremitus were diminished, the breath sounds were very feeble, and a few crepitant sounds were audible. The abdomen was not distended, the abdominal respiratory movements were present, and the abdominal viscera were apparently normal. On the fourth day of the illness the temperature suddenly fell to 96°, but it rose again the same evening to 102°, and steadily mounted from that time until death when it reached 104°. In addition to the signs mentioned at the base of the left lung, a patch of faint tubular breathing developed in the left scapular region and rhonchi and moist sounds were present over the other parts of the lungs. Profuse and uncontrollable diarrhoea now set in, the bowels acting 15 times on the eighth, five times on the ninth, and 11 times on the tenth day of the disease. The patient was sleepless, complained of severe epigastric pain, and commenced to vomit. He was so collapsed that saline fluid was injected into the subcutaneous tissues, brandy being administered freely and strychnine being injected. Death occurred 11 days from the commencement of the disease. Up to the day before death the urine contained no albumin. No urine measurement was made.

At the post-mortem examination the body was found to be emaciated, the trachea and bronchi contained a large quantity of tenacious mucus, the bronchial glands were swollen, and the left lung was completely pneumonic, the lower lobe being grey and oedematous whilst the upper was still red. The visceral pleura was covered with a thick fibrinous pellicle. The lower lobe of the right lung showed patchy grey hepatisation; the other lobes were congested and oedematous. There was a fibrinous pellicle on the pleural surface of the lower lobe of this side. The heart was not dilated; the cavities of the right side contained tough fibrinous clot, which extended from the auricle to the commencement of the pulmonary artery. There was no endocarditis and no excess of pericardial fluid. The parietal pericardium, however, was thickened and adherent to the superjacent pleura of the left side. The adhesions were recent and "buttery." Inflammation had not spread to the interior of the pericardial sac. The stomach was greatly distended. It lay with its long axis directed downwards and to the right. The lowest part of the viscus was within a few inches of the pylorus and reached the level of a line joining the anterior superior iliac spines. The lesser curvature, after emerging from beneath the liver, ran almost vertically downwards to a point on the right of the mid-line on

<sup>1</sup> THE LANCET, Oct. 26th, 1901, p. 1115.

<sup>2</sup> THE LANCET, Oct. 14th, 1899, p. 1017.

<sup>3</sup> Deutsche Medicinische Wochenschrift, August 17th, 1899.

<sup>4</sup> Philadelphia Medical Journal, August 12th, 1899.

<sup>5</sup> Clinical Review, 1898.

a level with the umbilicus, then becoming sharply recurved and ascending to the pylorus. The distension *was not* limited to the stomach but involved also the whole of the duodenum, stopping short near the jejunum. The interior of the stomach showed no gross disease; its contents were partly fluid and partly gaseous. The intestines below the duodenum were partially collapsed. The liver appeared to be fatty, the spleen was firm and slightly enlarged, and the kidneys were somewhat swollen, probably as the result of tubal changes. The portal and biliary systems were natural. There was no peritonitis. (For the clinical notes of this case we are indebted to the courtesy of Dr. Hector Mackenzie.)

In our previous paper we particularly drew attention to the fact that the dilatation was not necessarily limited to the stomach but in four of the cases involved the duodenum as well, and in one of these four the first part of the jejunum was said to be also dilated. In both the cases we now record the duodenum was dilated, in one a part and in the other practically the whole of the duodenum being involved. In one of the cases lately recorded by Dr. Campbell Thomson a similar condition of affairs was noted. In the face of this evidence it seems impossible to maintain any longer, as some apparently still do, that the dilatation is due to pyloric spasm. The presence of bile in the stomach contents is additional evidence against spasm of the outlet of the stomach.

One point was very noticeable at the operation on our previous and first case: it was that the stomach was so tensely distended that it actually emitted a musical sound when an attempt was made to pick up its wall. Now it is impossible to believe that a paralytically distended viscus could be placed in a condition of tension so great as this without some mechanical obstructive factor. The question is, How is the obstruction produced? So far as we can gather from literature the advocates of mechanical obstruction of the duodenum incline to one of two views—either the duodenum is kinked by depression of the distended stomach or it is compressed by the root of the mesentery and superior mesenteric vessels which cross it. The advocates of the latter view postulate a *primary* collapse of the intestine and prolapse of the empty coils, such as to cause dragging on the root of the mesentery and superior mesenteric vessels.

We have found by actual experiment on the cadaver that the stomach can be enormously distended by water pressure, with the jejunum cut right across and lying patent in the abdomen. Moreover, the stomach remains thus distended. The same result can be attained after the superior mesenteric vessels and the peritoneal folds in their neighbourhood have all been divided. If, however, by introduction of the finger well behind the distended stomach a little to the left of the mid-line of the spinal column the fundus and posterior wall of the stomach be gently raised the excess of fluid will at once flow freely away from the stomach through the cut jejunum. If the part of the duodenum which lies on the right side of the spine, behind the peritoneum, be first incised, the tense distension of the stomach cannot be produced. We therefore feel justified in assuming that the tense distension is due to actual pressure of the stomach on the part of the duodenum which crosses the third and ascends by the side of the second lumbar vertebra to end in the jejunum.

We would suggest, therefore, that in producing the train of symptoms met with in acute dilatation of the stomach two factors come into play. There is first a paralytic condition of the viscus which leads to distension, and then, at a certain stage the distended stomach actually produces obstruction by pressing on the duodenum on the front and to the left of the spinal column.

The persistence of the vomiting is often held to controvert the idea that the primary lesion is paralytic. It is well to bear in mind the present teaching of physiology on this question. Vomiting may be induced by the injection of tartar emetic into the blood, even after the stomach has been replaced by a bladder, provided that the cardiac orifice has also been removed so that the bladder is actually tied into the œsophagus. If the cardiac orifice be left intact vomiting cannot be induced. Two factors are therefore essential for the production of vomiting: (1) a dilatation of the cardiac orifice and (2) compression of the stomach by the abdominal muscles and diaphragm or in some cases by the diaphragm only. The presence of the power to vomit is not therefore evidence that the stomach is not paralysed.

Acutely distended stomachs usually contain a quantity of gas as well as of bilious fluid. It is quite possible that a

large quantity of this usually, but not always, odourless gas is derived from air which is consciously or unconsciously swallowed, and helps to increase the gastric distension. At the same time saliva is also swallowed, the patient's thirst leads him to drink freely, and possibly gastric hypersecretion also comes into play. When vomiting ceases in cases of acute dilatation of the stomach apparently the abdominal distension becomes extreme.

The early diagnosis of the affection is a point of no little importance. Treatment is apparently futile when the distension becomes extreme. It remains to be seen what can be effected by judicious management in the earlier stages of the affection. A consideration of the recorded cases shows that the recognition of the condition is by no means easy. It has been mistaken for (1) intestinal obstruction, (2) perforative peritonitis, (3) perforation of bowel with encysted abscess, (4) pancreatic cyst, (5) uræmia, and (6) post-anæsthetic vomiting. 1. Of obstruction it doubtless is a form, but of obstruction high up, with obtrusive abdominal signs in the form of gastric dilatation. It must be noted, however, that diarrhoea is present and severe in some cases. 2, 3, and 4. The intense abdominal pain which is usually present, the vomiting, the increasing abdominal distension, and the very marked collapse closely mimic general peritonitis. The position of the percussion dullness in the lower part of the abdomen and right iliac region may on a superficial examination appear to confirm this suspicion. The enormously distended stomach has even been mistaken for an encysted abscess. 5. The incessant vomiting, the partial suppression of urine, the occasional albuminuria, the condition of somnolent delirium which may mark the approaching termination, and the "collapse" temperature which is sometimes but not always present, may well give rise to suspicions of uræmia. 6. In those cases which occur after operations there is a great danger of attributing the vomiting to the anæsthetic and the collapse to the operation. Careful examination of the abdomen in these cases is the only safeguard.

In all cases the readiest way to a diagnosis lies in a knowledge of the conditions under which acute dilatation of the stomach is likely to occur and in a careful physical examination of the abdomen with an attempt to elicit the succussion-splash.

We pointed out in our other paper that the gastric dilatation may not at the onset of symptoms assume the extreme degree seen in the later stages of the disease, and that even a day or two may elapse before dilatation is recognised.

It must be borne in mind that the course of the temperature is variable and is largely influenced by the accompanying disease; a "collapse" temperature is not necessarily present.

The general lines of treatment by strychnine injection, stomach lavage, rectal feeding, and intravenous or rectal saline infusion, have been insisted upon again lately. With regard to an attempt to remedy the obstruction by the postural method we can only say that we have not been able to satisfy ourselves that it is successful in the cadaver, even with the abdomen freely opened, so that the stomach might fall forwards easily. It would appear rational, however, to adopt the right-sided or prone position after syphonage. It might be advisable also to try the effect of atropine injection, this method being believed by some to be of utility in the cardio-gastric crises of diphtheria. In these, however, obvious dilatation of the stomach is a very uncommon occurrence. Should operation be determined upon the ideal procedure would certainly appear to be gastro-jejunostomy, as proposed by Mayo Robson in his remarks on the subject.<sup>6</sup>

## BRIEF NOTES OF A FEW EXCEPTIONAL CASES OF CATARACT EXTRACTION.

BY CHARLES BELL TAYLOR, M.D. EDIN.

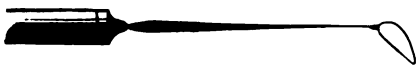
SURGEON TO THE NOTTINGHAM AND MIDLAND EYE INFIRMARY.

CASE 1.—This patient, from Middlesbro', was born with opacity of the lens in each eye, not the ordinary form of congenital cataract with an opaque centre and clear margin, but with an opacity affecting the lens throughout, slight at first and not sufficient to prevent his learning to read and to write, but gradually increasing

<sup>6</sup> Loc. cit.

until at seven years of age the right eye was quite blind and the left so imperfect that in order to see ever so little he was obliged to hold objects literally in contact with his nose. When I first saw him he had been blind—that is, with only perception of light—for upwards of 35 years in the right eye and the left was not much better, the vitreous was fluid in both eyes, the iris was tremulous, and the lens shared in the general commotion whenever he moved his head. In these circumstances it was clear that any operative procedure would be attended with considerable risk; indeed, he had been treated as an in-patient and as an out-patient at a large ophthalmic hospital and had been strongly advised by one of our most eminent surgeons not to submit to any operation upon his eyes. Nevertheless, as matters were getting worse and he could neither enjoy life nor get his living, I decided to operate upon the right eye; this I did in the usual way, with a small flap upwards, and, contrary to my usual custom, a slight iridectomy. The vitreous drained away the moment the section was completed, the eyeball collapsed, and the lens sank to the bottom of the chamber; I therefore coaxed it out with my wire spoon, an invaluable instrument, since its extreme tenuity enables the operator to assist the exit of the lens without adding to its bulk (see Fig. 1). All went well

FIG. 1.



and the patient recovered without a bad symptom. I therefore repeated the same process on the left eye which also recovered, and this patient now has excellent sight. Here is what he writes on the subject: "I am so thankful to say my eyes are splendid now, I have not had the least pain whatever and can see any distance. I have been taken to church, chapel, and lectures many a time, but never saw the speaker till last Sunday. Things are so different to what I thought they were, it is a new world altogether, oh, dear! after being in darkness for over 37 years and then to recover my sight, I am bewildered and could weep for joy."

CASE 2.—The patient, who was 42 years of age, was struck in the right eye by a piece of steel 15 years ago and the sight of this eye was in consequence completely lost. A year ago the same accident happened to the left eye, and after residence for a month in a large ophthalmic institution he was discharged on the ground, according to his own account, that "it was not possible to do anything for him." The case was certainly complicated and unpromising, but I saw no reason why an attempt should not be made to restore his sight. I therefore operated four times, extracting the lens in each eye and forming an artificial pupil in both. Suffice it to say that he has recovered sight, so good that he is now employed as manager of a large store, a position in which accurate vision both for distance and for near objects is essential.

CASE 3.—The patient, a woman, aged 45 years, lost her right eye 17 years ago from an accidental blow, and recently while nursing a friend's child she contracted purulent ophthalmia, followed by panophthalmitis, shrinkage, and complete loss of the left eye. She had been treated with the utmost care and skill in an ophthalmic institution, and when all hope of restoring sight to the left eye was abandoned she was placed under chloroform with a view to operation upon the right eye, which had been blind so long (17 years). This intention was, however, abandoned by the surgeon at the last moment and on recovery from the anæsthetic sleep she was informed that nothing had been done or would be attempted as the case was hopeless. When I first saw her I found that she was suffering from "cataracta complicata accreta," that the vitreous was fluid, that the iris was tremulous, and that the prospects of restoration of sight by operation were very small indeed. I dared not give an anæsthetic for fear of sickness and excitement, and it was only by a combination of cocaine, holocaine, and what might fairly be called hypnotism that I succeeded in doing a small iridectomy upwards and removing the lens capsule and all entire with iris forceps, leaving a perfectly black pupil, through which she now has excellent vision both for reading and writing and is able to resume her former occupation—that of a teacher of music.

CASE 4.—The patient, a man, aged 74 years, had long suffered from cataract in both eyes; the left had been blind

for years and recently the right had become similarly affected. When I first saw him the cataract had been removed from the right eye by a well-known and experienced ophthalmic surgeon, but with unfortunately disastrous results. The patient's son informed me that before the operation he could see to go about with the operated eye, although the left was quite blind, and I naturally asked, "Why did you have an operation on the best eye when the left, blind so long and with everything to gain and nothing to lose, was inviting interference?" To which he replied that the operating surgeon had said "that the reason why he selected the right eye for operation was because he could use his right hand so much better than his left." I mention this merely to call attention to my bent knife, by which the left eye may be operated upon with the right hand with even greater facility than may the right eye. I operated upon this patient's left eye with the knife in question (see Fig. 2),

FIG. 2.



upwards without iridectomy and am thankful to say that he has now a perfect eye and excellent sight both for reading and for distance.

CASE 5.—The patient, who was blind from cataract in both eyes, was first operated on in Australia, the right eye being selected for extraction, an operation which was performed in the usual way upwards with iridectomy. Unfortunately, everything went wrong. The pupil closed, sight was lost (the retina was said to be detached), and the eye remained in a very irritable condition. In these circumstances it was deemed desirable that he should seek advice in the old country, and he accordingly came over and consulted some of our most eminent metropolitan ophthalmic surgeons, with the result that he was advised to submit to extirpation of the right eye before any operation was attempted on the left, and that he should be then safeguarded by a preliminary iridectomy with an interval of weeks or months before the cataract was extracted from the left eye. He did not see his way to fall in with these suggestions, and as the last surgeon whom he had consulted had told him that circumstances were not favourable for operation and that he had better return home he determined to do so, blind as when he came. At this juncture someone sent him to Nottingham. When I first saw him he was accompanied by a gentleman on whom I had operated for cataract some years ago, and as this gentleman was very anxious to get away the same day I operated upon the patient's left eye at once, extracting in the usual way upwards with cocaine and holocaine and without iridectomy. All went well; he had no pain at the time and none after. There was no prolapse of the iris, the pupil was clear, round, central, and moveable, and the eye (a light grey) beautiful to look upon. It is almost needless to add that he recovered most excellent sight both for reading and for distance. The question now arose, what should be done with the right eye? and some of his friends were very anxious that it should be excised before he incurred the risks of a voyage. No doubt this would have been a prudent course, but I never take an eye out if I can help it, and as the patient had good perception of light I performed a large iridectomy downwards, extracted a mass of capsule and punctured the hyaloid fossa, with the result that he has now very useful sight with this eye, being able to go about with his best eye closed and to read large print (double pica) with a glass.

CASE 6.—This patient came under my care in his eighty-sixth year, suffering from asthma, chronic bronchitis, and constant cough. He was blind from cataract in both eyes and had been advised by an ophthalmic surgeon not to submit to extraction. I operated upon the left eye without misadventure and without iridectomy; there was no prolapse and as the pupil was central and moveable I divided a small piece of capsule and sent him home within 14 days. Later the opening in the capsule closed and I therefore extracted it *en masse* with iris forceps. This operation was followed by an attack of acute glaucoma, which was instantly arrested by sclerotomy and puncture of the hyaloid fossa, and he has now excellent sight both for reading and for distance. The case is worthy of record as the patient, who

keeps a public-house, is a life-long abstainer from all alcoholic liquids.

CASE 7.—This patient also was in his eighty-sixth year when he came under my care. He was then suffering from cataract in both eyes, fully formed on the right eye and commencing on the left. I extracted on the right eye without iridectomy, restoring excellent sight. A decade later he expressed a wish to have the left eye operated on, and I repeated the same process without iridectomy on that eye. As he was in his ninety-sixth year I was anxious that he should be exposed to as little risk as possible and therefore treated him in my private hospital and surrounded him with every care

FIG. 3.



and attention. The day after the operation, however, he got up, dressed, and returned home, where there were no facilities for treatment whatever. Nevertheless, he made an excellent recovery without any prolapse of iris and has now in his hundred-and-first year most excellent sight both for reading and for distance. This case is remarkable and I therefore with his permission present your readers with a portrait of the Nottingham centenarian (see Fig. 3).

Nottingham.

## THE TREATMENT OF OZÆNA BY CUPRIC ELECTROLYSIS.

By EUGENE S. YONGE, M.D. EDIN.,

HONORARY ASSISTANT PHYSICIAN, MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.

It is probable that of all the nasal diseases which, by a somewhat haphazard nomenclature, have been loosely labeled "ozæna," foetid atrophic rhinitis is the one for which the term has most frequently been used as a synonym. When employed in this specific sense it is understood to indicate a disease characterised by a chronic course, by atrophy of the nasal mucosa and sometimes of the osseous structures of the turbinates and by the formation of foetid crusts, and all this without definite discoverable cause.

Until within recent years the treatment of this malady was largely confined to dealing with the troublesome symptoms associated with the disease. It was found that by continued local measures the formation of crusts and the intense foetor could to a large extent be kept in abeyance; and inasmuch as these two disabilities when unchecked were almost as potent to banish the victim from society as was the power given by Kleisthenes to the Athenians, it must be admitted that this was something gained. For a long period, however, no noteworthy advance was made, and although remedies which were said to have healing properties were from time to time suggested it was not until the year 1892 that Jouslain<sup>1</sup> proposed the method of cupric interstitial electrolysis which up to the present date appears to have progressed farthest in the direction of cure. Cheval described the procedure in 1895 and asserted that he had obtained 90 per cent. of cures, the majority of these after a single *séance*, but a committee appointed to investigate the

matter by the Society of Belgian Laryngologists and Otolologists, to whom he had communicated his paper, were far from being able to share his optimism. Bayer,<sup>2</sup> Brindel, Gouguenheim and Lombard,<sup>3</sup> and McBride<sup>4</sup> have all given their experiences of cupric electrolysis, and to the article by the last-named author I am much indebted.

I have had the opportunity of testing the efficacy of this treatment in 15 cases and the details of the method as employed are briefly as follows. The nasal cavities were first thoroughly cleansed by a warm alkaline and antiseptic douche. Cocaine was then applied to the nasal cavity to be treated, and after a few minutes the parts were dried and the electrolysis needles inserted. The copper needle, attached to the positive pole, was passed into the inferior or middle turbinal, usually the former, and the steel needle into the septum. The strength of the current varied, but it was found that from three to 10 milliampères were the most suitable intensities, although currents as strong as 20 milliampères were on a few occasions used. As a general rule, the current was allowed to pass for 10 minutes, and it appeared that no advantage accrued from prolonging the application beyond this period of time. After each *séance* the patient was usually instructed to refrain from syringing the nose until the next examination. The number of applications given depended upon the improvement noted; five *séances* were the maximum.

Although at least one death has been attributed to this treatment I did not myself observe any after-effects which were calculated to give rise to alarm. A patient occasionally complained of slight giddiness and some general disturbance after the application, a few stated that they suffered from neuralgic pains in the teeth and face, and one patient reported that there was some swelling of the face. Two children (aged 11 years and 14 years respectively) each developed a small perforation in the septum as one of the results of the treatment, but in neither case did the event give rise to any permanent inconvenience. With currents ranging from 5 to 10 milliampères there was considerable discomfort and the cocaine appeared to act only in reducing the amount of pain caused by the insertion of the needle; there was, however, a tendency for the unpleasant sensations caused by the passage of the current to become lessened in the course of a few minutes. In analysing my own observations I have divided the cases into (1) those in which the patients were cured; (2) those in which the patients were much improved; (3) those in which the patients were temporarily improved but relapsed; and (4) those in which the patients were not improved.

1. *Cases in which the patients were cured.*—These were two in number.

CASE 1.—The patient was a female, aged 38 years. There was a history of marked crusting and offensiveness for at least 15 years. Examination revealed considerable atrophy of the turbinates and marked crust formation. The patient was given two applications of electrolysis (one in each nostril) at the Manchester Throat Hospital in October, 1899. Since that time she has presented herself at intervals for re-examination and was last seen in October, 1901, but no crust or odour could be detected. She has therefore been free for two years. The patient thinks that her sense of smell has slightly returned.

CASE 2.—The patient was a female, aged 20 years. There was a history of considerable nasal discharge and crusting for several years. Foetor had been marked for at least 12 months. The patient was given two applications in December, 1900. She had not syringed since that date and had not been troubled with foetor or crusting. Now (October, 1901) the nasal cavities are quite free from crusts or odour, although the atrophy of the turbinates persists. She has therefore been free from symptoms for 10 months.

2. *Cases in which the patients were much improved.*—These cases amounted to five, all of whom with one exception (Case 3) were seen in October, 1901, and the reports were made at that date.

CASE 3.—The patient, a female, aged 26 years, came under treatment 18 months ago. When she was last seen she reported that she had had to syringe about four times in three months (as compared with twice daily before treatment). She had been much bothered with crusts in the naso-pharynx; when last seen, however, there was practically

<sup>1</sup> Moure: Bulletin de la Société Française d'Otologie &c., tome xiii., p. 1.

<sup>2</sup> Revue Hebdomadaire de Laryngologie, Mai, 1896.

<sup>3</sup> Annales des Maladies de l'Oreille, November, 1896.

<sup>4</sup> Edinburgh Medical Journal, March, 1899.

no crusting in the nose, but there was marked pharyngitis sicca. The fœtor was very much less; it was, indeed, often absent.

CASE 4.—The patient was a girl, aged 11 years. She had been under treatment about 12 months before. At present she has to syringe her nose two or three times in three months, as compared with daily syringing before treatment. There is said to be now no crusting, but there is slight occasional offensiveness, on account of which the patient still syringes.

CASE 5.—The patient was a girl, aged 17 years. She had been under treatment two and a half months before; there had been no syringing since that time. The nares are at present free from crusts or odour, but there is a small, white, and non-offensive crust on the right side. Although she has been free for two and a half months the treatment is too recent for the case to be fairly considered a cure.

CASE 6.—The patient was a female, aged 23 years. No crusts or odour could be detected, although the syringe had not been used since treatment, two months previously; but the patient states that some crusts of moderate size have been expelled and that slight offensiveness has occasionally been noted.

CASE 7.—The patient was a female, aged 21 years, in whom the last application had been made three weeks before. There had been no crusting or fœtor up to the date of the re-examination, but she is still under observation. This case is so recent that it is perhaps hardly fair to include it.

3. *Cases in which the patients were temporarily improved.*—These cases amounted to six and the patients in all except one reported their condition in October, 1901. Of these the patient in Case 8 has remained free for three months and then relapsed; in Case 9 the patient relapsed after two months; in Case 10 the relapse occurred after several weeks; and in Case 11 after one month. In Case 12 the patient relapsed after 10 days, but she has now only to syringe three times weekly as compared with twice daily before treatment. In Case 13 the patient improved slightly but was lost sight of.

4. *Cases in which the patients were not improved.*—In two cases (Case 14 and Case 15) no improvement was shown; Case 15 was lost sight of after one application.

All the cases were females and in all except one the disease was bilateral. The patients who suffered from marked atrophic pharyngitis gave the most trouble; and it was observed that whilst the treatment applied to one nostril had a beneficial and, so far as could be ascertained, an equal effect on the other, the action of the remedy on the dry naso-pharynx was practically nil. The exact means by which the treatment takes effect is still a matter for conjecture. Possibly fetid atrophic rhinitis is a tropho-neurosis which is benefited by the stimulating effect of the electrical current on the part; on the other hand, it may be that the formation of copper salts at the positive pole is the essential factor.

Whilst I am quite convinced of the relative value of this method of treatment my own small experience leads me to be somewhat diffident of concluding that a permanent cure is to be expected in any but a minority of the cases; and a re-examination, after an interval of several months, of a number of patients who were all too prematurely considered to be cured has impressed upon me that freedom from symptoms for one, two, or even three months does not insure that a patient shall be free from relapse. At the same time, the benefits of cupric electrolysis appear to be so far superior to those of other procedures that it may be looked upon as the best remedy that has yet been found; and although for the victims of "ozæna" it will not repair the shrunken turbinates or restore intact the sense of smell, it will, in a certain percentage of cases, so reduce, or even banish, the tendency to fetid crust-formation that a state of wholesome comfort—the *ultima Thule* of these unfortunate sufferers—is safely reached.

I am much indebted to my colleagues Dr. A. Hodgkinson and Dr. N. C. Haring, and to Dr. H. A. G. Brooke, honorary physician to the Manchester and Salford Hospital for Skin Diseases, for kindly sending me cases suitable for the treatment; and I wish also to express my particular obligation to Mr. A. E. H. Blackburn, of the firm of Mottershead and Co., Manchester, who most courteously rendered me on several occasions generous and valuable help.

Manchester.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### PREGNANCY AND LABOUR IN ONE HORN OF A BILOBED UTERUS; PLACENTA PREVIA.

By CLAYTON A. LANE, M.D. LOND.,

CAPTAIN, I.M.S.; RESIDENT SURGEON, EDEN HOSPITAL, CALCUTTA.

A DUTCH woman, aged 25 years, a primipara, was admitted into the Eden Hospital on July 24th, 1901, in labour, giving the history that pains had begun at 4 P.M. on the previous day, the membranes rupturing at the same time. On admission the pains were feeble and the general condition of the patient was good. On examining the abdomen the bulk of the uterine tumour lay to the right of the mid-line, but just above the pubes; it extended more to the left than to the right. The superficial appearance was one of unusually marked lateral obliquity of the uterus. The position of the child could not be mapped out as the uterus was tenser than usual. The foetal heart-sounds were audible. The external os was not dilated and the presentation lay above the brim. Under chloroform the os was dilated with Hegar's dilators and Barnes's bags and a marginal placenta previa was found on the anterior wall. It may at once be stated that this gave rise to no symptoms at any time. Since the os showed a tendency to close a de Ribes's bag was put in and left for an hour. The pains became feeble and the patient was given 10 grains of sulphate of quinine and in half an hour the pains were strong. The bag was removed and the os was found, admitting three fingers, with the left foot lying just above it. This was brought down and the case was left to nature. The pains, however, died away again. She was given 30 grains of chloral hydrate and 30 grains of bromide of potassium at once and half the quantity of each half an hour later, after which she slept for two hours and awoke with strong pains. An hour later, her pulse being 78 and her temperature 98.8° F., the dilatation was found to be unchanged and the protruding leg was blue and swollen. Accordingly, under chloroform the cervix was digitally dilated and the right foot was brought down. After this by slight traction on the legs during the pains the body was delivered to the umbilicus. The child was sitting astride the cord; this was released and the hands, which were not extended beside the head, were brought down. The head was now gripped by the cervix; forceps were rapidly applied and the head was immediately delivered. The cord was twice round the neck. The placenta followed rapidly and some bleeding occurred, which was checked by massaging the uterus and by a hypodermic injection of 10 minims of ergotin. On examining the uterus with a view to giving a uterine douche it was found that the uterine canal bifurcated in the body of the uterus. The right branch was large and was the one in which the pregnancy had occurred; the left one, though much smaller, readily admitted the finger. Bimanually the uterus was found to be bilobed, the right lobe being of the size of a cricket-ball and the left considerably smaller. The right half of the uterus was douched out. The perineum was torn about an inch; its mucous membrane was sutured with a continuous catgut suture and the skin with silkworm-gut sutures. The child was born asphyxiated and revived with difficulty. The placenta was battledore. The discharge became offensive, though not excessively so, and for this the patient was treated with vaginal douches. Her temperature was as follows: second day, 101°; third day, 101.2°; fourth day, 100°; fifth day, 100°; sixth to eighth days, normal; ninth and tenth days, 104°; eleventh day, 100°; twelfth day, 103°; and subsequently it was normal. On August 13th she was reported to have an offensive discharge, but that removed from the cervix by a swab was sweet. The cervix was split to the fornix on the right side and at this point there was some thickening. The right uterine cornu reached out to the right, extending two inches vertically above the pubes and the inner part of Poupart's ligament. The left cornu lay deeper in the pelvis, was smaller, and was somewhat difficult to feel. The uterus was moveable. On the 18th the thickening beside the cervix on the right side

was replaced by a linear scar. The uterus was less mobile than usual, was bilobed, the right cornu being of about the size of the normal uterus at the same period. The left cornu lay wedged in the pelvis, appearing jammed against the pelvic wall and was seemingly the cause of the want of motility of the organ. The bispinous diameter was nine and a quarter inches and the bisiliac eleven and a half inches. The width of the true pelvis, as estimated by the finger in the vagina, did not appear to be greater than usual.

The chief points of interest in this case seem to be the great reluctance of the cervix to dilate, a well-recognised accompaniment of the condition, and its association with placenta previa. The condition of bilobed uterus seems to be not very uncommon in Calcutta. I find in a search through the register of this hospital that two women with a similar condition were delivered here in 1898; both cases terminated fatally.

I have to acknowledge the kind permission of Lieutenant-Colonel F. S. Peck, I.M.S., to publish this case.  
Calcutta.

#### A CASE OF THROMBOSIS IN A CYSTIC DILATATION OF THE SAPHENA VEIN.

BY GEORGE A. CLARKSON, F.R.C.S. ENG.

THE patient, a man, aged 51 years, consulted me on Feb. 7th, 1901, on account of pain and swelling of the right leg which had commenced on the previous day. He had never had any trouble of the kind before and had enjoyed excellent health all his life. On examination the inner side of the leg from the knee downwards was rather red, swollen, and very tender on pressure. Over the inner tuberosity of the tibia was a hard, exquisitely tender mass of the size of a large walnut, and at the junction of the middle and lower thirds of the leg was a very much smaller thrombus. The intervening vein was tender and thickened but neither enlarged nor varicose. Overlying the patella was a group of varicose veins quite unaffected. Rest in bed with the leg raised, coupled with hot Goulard fomentations and purgation, soon reduced the inflammation, and at the end of a week the two thrombi alone remained, but little reduced in size. On Feb. 14th, under ether, I made an incision five inches in length over the upper thrombus and dissected out a cyst of the saphena vein of considerable size filled with hard clot. The vein was traced some little distance above and below and was ligatured beyond the limit of the thrombus. The lower thrombus was similarly dealt with through a small incision. The subsequent history of the case was quite uneventful. The wounds healed throughout by first intention and by the middle of March the patient was able to return to his work.

I think that this case exemplifies very well the superiority of this form of treatment over that by prolonged rest, which is more commonly pursued, for the following reasons. 1. The patient is effectually relieved from the risk of any dislodgement of clot with its accompanying dangers. 2. It prevents extension of the clot to the deeper veins and main venous trunks. 3. It reduces the necessary rest in bed to a minimum. 4. It leaves the patient afterwards less liable to a second attack. 5. It relieves the surgeon of the difficult task of deciding when, without incurring undue risk, the patient may begin to use the limb.

Leicester.

**NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (ALBANY MEMORIAL).**—The report of the Board of Management for the year ending December, 1900, states that notwithstanding the untoward circumstances of the year no diminution of the hospital's beneficent operations has come about. The full number of beds has been maintained, while the average in occupation has been larger than at any previous time. The total number of in-patients during 1900 was 895, the average number of beds occupied was 183, and the average stay of each patient was 75 days. The cost of each occupied bed was £81 6s. 2d., which shows a serious addition to the figures of the previous year (£76 19s. 5d.). The out-patients under treatment numbered 5959, who gave a total attendance of 36,641. The receipts from all sources amounted to £15,843 19s. 6d. and the expenditure was £18,193 14s. 4d.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proemium.

### METROPOLITAN HOSPITAL.

#### A CASE OF ENUCLEATION OF PROSTATIC ADENOMATA.

(Under the care of Mr. HAROLD L. BARNARD.)

MUCH of the difference of opinion which exists as to the desirability of treating enlargement of the prostate by "enucleation" depends on the fact that many fail to recognise that only certain forms of enlarged prostate are suited for the operation—namely, the adenomata. The success following enucleation in suitable cases cannot be surpassed by any other method of treatment. For the notes of the case we are indebted to Mr. J. D. Hartley, house surgeon.

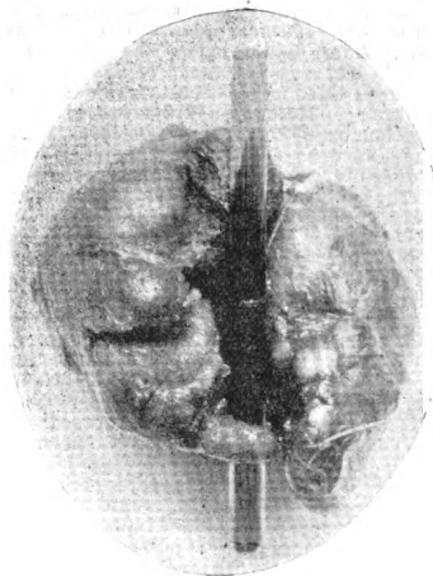
A man, aged 62 years, was admitted into the Metropolitan Hospital on August 14th, 1901, under the care of Mr. Barnard, suffering from enlargement of the prostate. The history was that the patient had had no urinary trouble until five years ago when he had an attack of retention of urine. This was relieved by catheterisation. Subsequently to this on several occasions he suffered from retention, and each time his urine was drawn off by catheter. He passed a quantity of blood with his urine once, three years ago, and during the past year he had frequently passed blood. He had pain on passing urine which was very thick and offensive. The frequency of micturition greatly increased, though he passed but little at a time and the last portion dribbled away. He had great difficulty in starting the stream. The patient was thus suffering from all the troubles incident to enlargement of the prostate and was in such a wretched state that he begged for the operation. He had given up all work and was for the most part confined to his bed.

On admission the urine was found to be alkaline, of specific gravity 1020, full of pus, and of an ammoniacal odour. The residual urine amounted to five ounces. The patient had pain and tenderness in the hypogastric region and in both lumbar regions and down the course of each ureter. By the rectum the prostate was felt to be uniformly enlarged, being of the size of a small orange, and was not tender. The lateral lobes were smooth, rounded, and elastic. A soft, full-sized rubber catheter passed easily into the bladder. The general condition of the patient was fair though his lungs were emphysematous and he had a good deal of bronchitis. He was put on acid sodium phosphate (one drachm to a pint of water) and this he always had by his bedside and drank when he felt so inclined, taking in all about three pints a day. Urotropine was also given in ten-grain doses three times a day. Under this treatment in a week the urine became clear, the pus disappeared, and the smell was lost.

On August 20th an operation was performed by Mr. Barnard, chloroform being administered by Mr. L. Thornley. The bladder was first emptied by a soft rubber catheter and then five ounces of warm boric lotion were injected. An incision two and a half inches long was made in the middle line of the abdomen just above the pubes. When the abdominal wall had been cut through ten ounces more of boric lotion were injected into the bladder and the latter was incised and each margin of the opening was caught up with pressure forceps. The opening in the bladder was enlarged by means of a blunt-pointed bistoury and a pair of vulsulum forceps was passed in. The right lateral lobe was caught and pulled up into the wound. The prostate was then thoroughly explored by the finger; the two lateral lobes projected into the bladder as rounded egg-shaped masses, whilst between their posterior extremities was a pedunculated middle lobe of the size of a walnut. The mucous membrane of the floor of the bladder was incised over the right lobe for about one inch and the forefinger of the left hand was passed into the opening thus made and the growth

was gradually scooped out. Two fingers of the right hand were passed into the rectum in order to keep the prostate up in the wound. After the right lobe had been freed the finger was worked across the middle line and the left lateral lobe was shelled out without further incision. The middle lobe came away with the right lateral lobe. There was a considerable amount of hæmorrhage during the progress of the operation and at the conclusion the bladder was irrigated with equal parts of hazeline and water, thus restraining the bleeding. A long rubber tube bent double with a hole cut at the angle was inserted into the bladder and was stitched to the skin: another suture brought the upper part of the incision together, the lower part being left entirely open. The bladder wall was not sutured, neither was the bladder sutured to the abdominal wall. The wound was dressed with sterilised gauze and wool.

The patient stood the operation well. Four hours later he was dressed. The dressings were soaked through with blood and urine; he had also passed blood and urine per urethram. His bladder was irrigated with warm boric lotion twice a day until the tube was removed. The lotion flowed down one side of the double tube into the bladder and then out through the other limb of the tube. Later he was irrigated through a catheter passed down the urethra. His bronchitis made it necessary to sit him up in bed as soon as he came round from the anæsthetic. His recovery was uneventful; the tube was removed a week after the operation. He was out



Figure, rather less than actual size, showing adenomatous mass enucleated. The glass rod marks the position of urethra and sphincter vesicæ. The adenomatous ring is thin in front but thick behind, where it projected upwards as a middle lobe.

of bed in a chair nine days after the operation and a fortnight after the operation he passed urine from the urethra at will. Three weeks from the operation the suprapubic wound closed and urine passed quite naturally and was sweet and clear; he could hold his urine from three to four hours at a time. He passed it without delay with a good stream and he could project it a good distance. On examination by the rectum the prostate was found to be normal in size and a median cleft could be felt. The part removed (see figure) weighed two and a half ounces and microscopical section showed it to be in structure a simple adenomatous growth.

*Remarks by Mr. BARNARD.*—I do not propose to take any part in the battle for priority which has been raging in another journal. I may, however, state that I was led to operate by the enthusiastic description of Mr. P. J. Freyer and after seeing one of his cases and examining figures of his specimens. In operating I followed as closely as may be the method described in his paper<sup>1</sup> and found it a faithful guide, except perhaps in the matter of hæmorrhage, for my patient lost from 15 to 20 ounces of blood whilst he was on the table

and perhaps another 10 ounces or so the same night. The hæmorrhage was not alarming but it was not insignificant.

There is no doubt that by the method described above the obstructing tumour, which is after all the practical prostate, may be entirely removed, but I do not believe that the anatomical theoretical prostate can be so extirpated. Recently I enucleated a thyroid adenoma of the size of a child's kidney from the right lobe of the thyroid gland. The gaping cavity left was inclosed by the merest shell of thyroid tissue and capsule, which could be seen by the eye but could not have been identified by the finger tip had it been out of sight at the base of the bladder and bathed in blood. So I believe the adenomatous tissue of the prostate is enucleated from the muscular and fibrous capsule and stroma, leaving the urethra and even ejaculatory ducts intact, and probably also the normal glandular tissue thinned out by expansion to a mere membrane. Such an enucleation can be carried out with ease on the cadaver and in this case there is no doubt that the capsule of the gland is left behind. If the plane of cleavage were between the fibrous capsule of the gland and its fascial sheath it would pass through the prostatic plexus and very severe hæmorrhage would be produced, whereas the loss of blood has not been considerable in any reported case of this operation. Moreover, since the urethra and ejaculatory ducts pierce the capsule as they enter and leave the gland, these structures would of necessity be removed with it, and this is not so. In the case reported above the tumour formed a complete collar round the urethra. This collar was broken through in front so as to produce a free end and was then unwound as it was enucleated from around the urethra, leaving that structure isolated in the cavity. The groove of the urethra is clearly seen on the inner surface of the ring of adenomatous material. Another argument in favour of the fibrous capsule of the gland having been left behind is supplied by the fact that my patient had, a month after the operation, as felt per rectum, a normally-shaped prostate which was, however, much smaller than it had been before and was doughy, as though formed of immature fibrous tissue. I have little doubt that as time goes on this will contract.

Among the specimens of prostate glands which I have recently examined and dissected was one in which the enlargement was due to fibrous hypertrophy. The stroma was converted into dense fibrous tissue and no amount of violence was sufficient to enucleate the gland from its capsule. I am bound to admit that this prostate, although enlarged, had not obstructed the urethra in any way, but I should be sorry to find myself embarked upon an attempt to enucleate such a prostate with the tip of the index finger *in situ* and during life.<sup>2</sup> I am not aware of the relative numbers of adenomatous and fibrous enlargements of the prostate which obstruct the urethra, but it will be essential before this operation comes into general use to be able to distinguish the one from the other, as can be done in the case of the thyroid gland.

Whether Mr. Freyer really removes the entire anatomical prostate, as he supposes, does not appear to me of so much importance as that he has brought prominently before the profession an operation which promises to be a radical cure for this common and malignant complaint. When the tumour had been enucleated in my case and the tip of the index finger explored the cavity it was abundantly clear that nothing was left of the prostate but an empty shell which was so thin that the fingers in the rectum and bladder appeared perilously close to one another. All other measures appear pitifully palliative when compared with such a result as this: the painful and unsatisfactory catheter life full of awkward limitations, and punctuated with attacks of hæmorrhage, retention, and cystitis. Castration and vasectomy, at one time so promising and hopeful, now appear to alleviate only, leaving the tumour untouched, although the prostate and bladder are less irritable and less subject to attacks of congestion and cystitis. It is a fundamental principle of surgery that when a tumour obstructs a passage the patency of which is essential to the continuance of life that tumour should be removed forthwith: or if this is not possible some short circuit must be established. The latter method is scarcely ever applicable to urinary surgery. When thyroid adenomata press on the trachea or œsophagus the surgeon loses no time but enucleates them or extirpates half

<sup>2</sup> Since the above was written I have attempted to remove another enlarged prostate and found it fibrous. No effort was sufficient to enucleate it and all that could be done was to cut away the obstructing portions of the prostate. The patient is, however, doing well.

<sup>1</sup> Brit. Med. Jour., July 20th, 1901.

of the thyroid gland. When pelvic tumours press upon the rectum, ureters, or urethra it is considered a clear indication that they should be at once removed. By a similar reasoning I believe that in the near future, when adenomatous enlargement of the prostate has once caused urethral obstruction, no time will be wasted whilst the bladder, ureters, and kidneys become dilated, whilst sepsis spreads throughout the urinary tract, and whilst the patient is worn out by pain and hæmorrhage, toxæmia and renal inadequacy; but at once, while he is strong, the entire tumour will be enucleated and the urethra permanently freed from obstruction.

The use of acid sodium phosphate ( $\text{NaH}_2\text{PO}_4$ ) in order to render the urine acid was first suggested by Dr. Robert Hutchison who has not, I believe, published his results. This drug is far more efficacious than boric acid or ammonium benzoate. It is best administered as described above, one drachm to a pint of water flavoured according to taste and taken as a beverage during the entire day. In excessive doses it only purges. I can speak very highly of its results in ammoniacal cystitis especially when combined with urotropine.

### SUSSEX COUNTY HOSPITAL, BRIGHTON.

#### THREE CASES OF TRAUMATIC TETANUS RECOVERING UNDER ANTITOXIN.

(Under the care of Dr. E. MACKEY.)

FOR a determination of the exact value of the antitoxin in the treatment of tetanus we need the notes of even more cases than have been already published, and for the purpose of statistics series of cases occurring in the same institution or under the care of the same surgeon are of especial value, for on the one hand the method of treatment is likely to be more uniform, and on the other all the cases which have been under treatment will be considered. For the full value to be obtained from the record of any case of tetanus it is necessary that the following points should be noted. 1. It is always well that the diagnosis of the disease should be confirmed, if possible, by the discovery of the bacillus in the wound. 2. The incubation period should always be stated, for at present this is the most definite guide which we possess for the forming of a prognosis early in the disease. The longer the incubation period the more probable is it that the attack will not be severe. 3. The source of the serum should be mentioned, for at present there is little doubt that there are great differences between the activities of the various sera. 4. The exact doses administered and the time when given should be stated. It must not be forgotten that the use of antitoxin does not render useless the administration of sedatives. These should still be given and will afford much aid in controlling the spasms. The local wound must be rendered thoroughly aseptic, and should this be difficult excision or amputation may be required. The importance of this local treatment is obvious when it is remembered that the bacillus lives only in the wound and does not enter the circulation, its toxins only being absorbed. As to the dose of antitoxin, in most cases from 30 to 100 cubic centimetres or thereabout have been administered, but a case was reported last year<sup>1</sup> in which Dr. Sydney H. Long of Norwich administered 625 cubic centimetres of serum hypodermically and 55 cubic centimetres by the rectum. The patient thus treated recovered. It cannot be laid down at present with any certainty what is the maximum quantity that should be administered, but obviously we should not risk poisoning the patient with the remedy. The following three cases form a series and are carefully recorded; they are therefore of great value in assisting our knowledge of the treatment of this disease. Dr. Mackey is to be congratulated on the recovery of all his three patients, and we shall hope to have reports of any further cases, so that the series may be extended. Mocheowitz<sup>2</sup> considers that the antitoxin treatment has reduced the mortality of tetanus from 90 per cent. to 40 per cent., but most medical men who have examined this question will hesitate to endorse this statement.

CASE 1.—A boy, aged 15 years, a gardener, was admitted into the Sussex County Hospital on Oct. 28th, 1899, having crushed his left little finger between a barrowful of manure and a wall three weeks before. About one week previously

(i.e., after an incubation of about a fortnight) he felt back-ache and difficulty in opening the mouth and had been getting worse daily. On admission he lay extended on his back, which was somewhat rigid and painful; the head was retracted; the face was flushed and sweating, with marked "risus"; the mouth was tightly closed but could be opened sufficiently to drink and to speak. The crushed nail was loose and dirty; it was removed and its bed was cleaned and carbolicised. The temperature was 99° F., the pulse was 76, and the respirations were 20. At 8 P.M. 10 cubic centimetres of anti-tetanic serum (which was obtained from the British Institute of Preventive Medicine) were injected, with antiseptic precautions, into the abdominal wall by Mr. A. C. Jordan. On the 29th the patient had dozed or slept with occasional attacks of general spasm and starting and pain in the right hand and back, rigidity, and sweating. He had taken well feeds of milk of from four to five ounces, with egg and two drachms of brandy and also some beef-tea. At 11.30 A.M. 12 cubic centimetres of serum were injected. At night one dose of chloral and bromide was given because of rigidity, pain, and spasm (when a door banged). On the 30th he was no worse. At 11.30 A.M. 12 cubic centimetres of serum were injected. There was no fever. The pulse was good. The bowels were slightly opened. One dose of chloral and bromide was given at night. On the 31st the symptoms continued, but in shorter attacks of rigidity, retraction, sweats, pain in the chest, "phlegm" in the throat, &c. He took the feeds and passed urine freely. At 11 A.M. 13 cubic centimetres of serum were injected. The temperature was 97°. A full dose of chloral and bromide was given at night, but he had a severe attack of rigidity and arching about two hours after. On Nov. 1st there was less "risus" but more frowning. He had bitten his tongue. At 10 A.M. 13 cubic centimetres of serum were injected. Pain in the right side and leg was present. The patient was excited and there was difficulty in feeding. Chloral was required in the morning. The bowels were not opened; compound mixture of senna was given. On the 2nd he held his ground, but he had pain in the left leg. At 11 A.M. 12 cubic centimetres of serum were injected. He required chloral at 2 P.M. and again in the night for pain in the left leg which caused him to cry out. He was quieter afterwards. On the 3rd the patient was better. He could open his mouth and asked questions. There was less rigidity; 10 cubic centimetres of serum were injected. There was occasional spasm. Chloral was given at night only. On the 4th he was distinctly better; 12 cubic centimetres of serum were injected. The bowels were opened. He had one dose of chloral. On the 5th he was progressing favourably, but had pain in the leg, which was relieved by liniment; 11 cubic centimetres of serum were injected and he was given one dose of chloral. The pulse ranged from 80 to 88. For two days he had been free from spasm. An acid and malodorous sweat was present; 11 cubic centimetres of serum were injected. On the 7th a red blush was present over the joints of the shoulder, elbow, and knee, and between the shoulders and on the back. This was irritable till bathed with boric lotion. On the 8th the rash was present also on the abdomen, one patch being much raised, and on the cheeks and the forehead. It had faded on the elbows and had disappeared from the legs. The patient had had a quiet night and could put out his tongue, which was raw. On the 9th the rash had faded. He complained only of sore-throat and some pain in the neck and left leg, and some rigidity of the abdomen. On the 21st the patient sat up and on the 28th he was convalescent. Altogether he had had 10 injections, making a total of 116 cubic centimetres of serum.

CASE 2.—A man, aged 49 years, a bricklayer, was admitted into the Sussex County Hospital on June 29th, 1901, supposed to be suffering from sunstroke; no history of any wound was given. He was said to be a heavy drinker, but he had never been ill till five days before, when he felt pain all over, especially in the shoulders and groin. There was no vomiting but much sweating. He could not now open his mouth wide and his legs were rigidly extended; he could not flex them and movement caused general spasm. The knee-jerks were excessive. The pulse was 112, the temperature ranged from 99° to 100° F., and the respirations were 28. The tongue was furred. He was given castor-oil, and morphia was injected hypodermically. On the 30th the patient had had several attacks of spasm during the night. The back was rigid. (Bromide with phenacetin was given.) He was sweating profusely. The pulse was dicrotic. On July 1st a

<sup>1</sup> Brit. Med. Jour., Nov. 24th, 1900, p. 1495.

<sup>2</sup> Annals of Surgery, October, 1900.

whitlow was found and opened on the finger of the left hand, the result, the patient said, of a splinter from his barrow which pierced his hand three weeks previously (= incubation of about a fortnight). In the evening 10 cubic centimetres of anti-tetanic serum (which was obtained from the Jenner Institute) were injected by the house physician (Mr. P. Foster). The bowels were opened after calomel had been given. On the 2nd there had been much spasm during the night and till 4 A.M., when a further 10 cubic centimetres of serum were injected and the patient became easier. The finger was freely incised and fomented with perchloride of mercury lotion (Mr. A. H. Buck in consultation). 10 cubic centimetres of serum were injected at 10 A.M. and also at 10 P.M. The patient was moved to a special quieter ward. On the 3rd he had passed a good night excepting for three bad spasms. He was now comfortable and could open his mouth better. Ten cubic centimetres of serum were injected at 2 P.M. and eight cubic centimetres were injected at 10 P.M. He had had four severe and eight slight spasms, but he was easier after the injections. He had milk diet with three ounces of brandy in the 24 hours and three doses of bromide and chloral mixture. On the 4th he had passed a fair night, there having been four spasms. Two doses of sedative were given and 11 cubic centimetres of serum were injected at 10 A.M. He was sweating freely and had many severe spasms of the whole body. He was excited even by speaking but between whiles he had been easier. The finger has been frequently fomented and now ached and smarted much. He had taken liquid food and water freely and three doses of sedative were given during the day. Ten cubic centimetres of serum were injected at 10 P.M. On the 5th he had passed a fair night and he was "greatly relieved by the injection." He was given a sedative also at 10 A.M. Six cubic centimetres of serum were injected and again at 10 P.M. He was comfortable all the day. On the 6th he had had a good night as to spasm, but there had been a tendency to collapse. Medicine was omitted. At 10 A.M. five cubic centimetres of serum were injected. He had a good day. Spasms occurred but were slight and were brought on by any disturbance. On the 7th he had passed a fair night, but at 9 A.M. severe spasms commenced, two occurred in succession and in half an hour three more with slighter ones between. At 10 A.M. the medicine was resumed and seven cubic centimetres of serum were injected. Seven severe spasms occurred before 8 P.M. when they were controlled by hypodermic injections of morphia and sedative medicine and eight cubic centimetres of serum. There was a tendency to collapse. The medicine was stopped and the fomentations were continued. On the 8th the patient passed a better night. Five cubic centimetres of serum were injected at 10 A.M. and he passed a very comfortable day. There was an urticarial rash on the abdomen. He had a good night till 5 A.M., when suddenly he woke with severe spasms, followed by 10 other attacks and some collapse and cyanosis. A quarter of a grain of morphia was injected hypodermically and medicine was given. The attacks were controlled and eight cubic centimetres of serum were injected at 10 A.M. on the 9th, after which only one slight spasm occurred and the patient passed a comfortable day. The rash was fading. The temperature ranged from 97° to 98° and the pulse from 100 to 112. The patient passed a good night. On the 10th in the morning at 10 serum (five cubic centimetres) was injected for the last time. The hand was in a bath of biniodide of mercury (1 in 500) for eight hours, but it caused pain and vesication, so borie ointment was substituted. From this date he gradually convalesced, requiring treatment for occasional collapse, but he was discharged quite well on July 31st, having had 16 injections, the total quantity of serum used being 131 cubic centimetres.

CASE 3.—A young man, aged 19 years, a bricklayer, who was employed in the same works as the patient in Case 2, was admitted to hospital on June 29th, 1901, having run a splinter from the *same barrow* under the finger-nail of the left hand on June 14th. This came out one week later, having caused no pain worthy of notice. On the 24th (i.e., after an incubation of 10 days) he felt tightness across his chest and general spasm, with hardness and contraction of the abdominal muscles, which had since spread to the legs and neck, not much affecting the jaws till the day of admission, when he could not open his mouth well and had risus sardonicus. The tongue was foul, the temperature was 100° F., the pulse was 96, and the respirations were 24. The knee-jerks were exaggerated and a tetanic condition with some opisthotonos was readily induced, accompanied

by pain and profuse sweating. On the third finger of the left hand the scar of injury was healed; it was not tender. There were large acne pustules on the forehead. A quarter of a grain of morphia was injected hypodermically and he was given castor oil as well as bromidia at bedtime. On the 30th there was less pain but recurrent spasms were present; 10 grains each of bromide and chloral with five grains of phenacetin were given every six hours. On July 1st there was much groin pain, also retention of urine, requiring the use of the catheter (this and subsequent cystitis were possibly accidental complications from a neglected gleet). Ten cubic centimetres of serum (obtained from the Jenner Institute) were injected by Mr. Foster. During the night spasm was severe and the patient was "light-headed." On the 2nd 10 cubic centimetres of serum were injected at 4 A.M. Later Mr. Buck saw him in consultation. The scar was opened and dressed with carbolic (a mercury-biiodide bath was ordered but the hand could not be kept in it); 10 cubic centimetres of serum were injected morning and evening. On the 3rd the spasms, which were better through the day, recurred, with opisthotonos and some pleurosthotonos in the evening; 10 cubic centimetres of serum were injected in the morning and eight cubic centimetres in the evening. Calomel and castor-oil were also given. The patient took liquid food well; only one ounce of brandy was given per diem. On the 4th during the night he had several severe spasms on waking. The tongue was bitten. Eight cubic centimetres of serum were injected in the morning and 10 cubic centimetres at night. The symptoms were less severe during the day, but chest pain and much sweating were present. On the 5th during the night there were much twitching of the hand and choking on swallowing, but these were relieved after the injection of serum, eight cubic centimetres being injected in the morning and six cubic centimetres in the evening. Through the day the patient was sleepy and more comfortable and was able to extend the legs without rigidity and to open the mouth. He had a comfortable night. Five cubic centimetres of serum were injected on the morning of the 6th. On the 7th there had been much pain in the legs during the night. No injection was made on this date; spasms were present, but were slight in character. The bladder symptoms were becoming more troublesome. The urine was ammoniacal with phosphates. On the 8th he was going on well but for "stiffness." From five to 10 grains of urotropine were given in the morning. The finger was still being fomented with antiseptics. Some faintness was experienced on moving. On the 10th slight spasms occurred on any disturbance. Five cubic centimetres of serum were injected. Bromic acne was now extensive on the forehead and the bromide was stopped and the pustules were opened. The bladder was washed out. The stiffness was said to be relieved by the last serum injection. Solid food was taken. The patient got up on the 12th. On the 13th he was better, but some spasm occurred. Five cubic centimetres of serum were injected. The bladder was washed out daily. On the 17th a whitlow on the right hand was opened. On the 19th there was much blood on washing out the bladder. Urotropine had been continued up to this date, but was now omitted. On the 24th the cystitis was better. The urine was acid. The patient was able to walk out. On the 31st he was discharged well, having had 13 injections, 105 cubic centimetres of serum being used.

*Remarks by Dr. MACKEY.*—The above cases are not selected for publication simply because they recovered: they are all that have come under my care since the antitoxin treatment was established, and I think that their evidence should be added to that which has now accumulated for and against. They may be judged by their incubation period to be of the milder type, but even of such the average mortality has been put at 25 per cent.<sup>1</sup> The impression made on those who watched these cases was of distinct antidotal power exerted by the serum, and although, as noted by others, the spasms seemed to be sometimes increased for a time they were afterwards lessened, and sometimes were relieved markedly and quickly; also, they returned more than once on suspension of the injections and were again mitigated on resuming them. The amount of sedative given was not large and could only be considered as saving fatigue and distress, not as curative; the good nursing and nourishment (of which only brief details are indicated) may be credited with a larger share of the recovery; several times there was imminent danger from collapse.

<sup>1</sup> Humphry and Woodhead, 1896.

## Medical Societies.

### PATHOLOGICAL SOCIETY OF LONDON.

*Investigations of the Intracellular Constituents of the Typhoid Bacillus.—Hæmolysins of Bacillus Pyocyaneus.—Isotonic Culture Media.—Proteolytic Enzymes of Fibrin.—So-called Mucous Intestinal Cast.—Products of Splenic Proteolysis.—Artificial Preparation of  $\beta$ -Hydroxybutyric Acid of Urine.*

A LABORATORY meeting of this society was held on Nov. 5th at the Jenner Institute of Preventive Medicine, Mr. WATSON CHEYNE, the President, being in the chair.

Dr. A. MACFADYEN and Mr. A. ROWLAND communicated a paper on the Investigations of the Intracellular Constituents of the Typhoid Bacillus. They then demonstrated the method of obtaining the intracellular constituent and finally recorded some results already obtained as regard the immunity conferred by injection of the intracellular constituents.

Dr. G. F. PETRIE read a paper on the Hæmolysins of Bacillus Pyocyaneus. He pointed out that results in hæmolytic experiments would be of greater value if a more definite system of examination were carried out. A considerable margin of possible fallacy was presented when the results were positive. With a view to lessening the risks of misinterpreting results it was recommended to use a solution in which the osmotic pressure was greater rather than less than that of the contents of the corpuscles. Again, the use of defibrinated blood was to be deprecated. Absolutely fresh unclotted blood was preferable as liable to introduce less chance of fallacy in the results. Definite percentages of the hæmoglobin to be tested were placed into test-tubes of equal size and equal amounts of blood were added by means of calibrated pipettes.

Dr. A. HARDEN read a paper on Isotonic Culture Media.

Dr. S. G. HÉDIN gave a short account of the Proteolytic Enzymes of Fibrin.

Mr. T. B. LEATHES gave an account of the So-called Mucous Intestinal Cast—Mucous Colitis. He said that the casts obtained from cases of Mucous Colitis were not composed of mucin, for they were insoluble in water and in weak alkali. If, however, the cast was treated with an alkali it went into solution. If the cast was left for some days in weak alkaline solution it was dissolved. This solution, however, gave none of the proteid reactions. If the cast was treated with weak acid the solution which resulted would reduce Fehling's solution and therefore it was probable that some glucosin was present. All the evidence seemed to point to the fact that it was not a proteid.—Dr. LESLIE EASTES said that he had investigated several of these cases chemically; he thought that the body was more nearly allied to keratin than to mucin. The cast contained a large number of other cells and leucocytes and these were held together by a mucin-like body. Blood was often present and some of the products gave rise to the chemical tests.—Mr. LEATHES, in reply, said that though the solubility of the substance suggested keratin yet it gave no sulphuretted hydrogen reaction, and therefore he was of the opinion that it was not keratin.

Mr. LEATHES then made a short communication on the Products of Splenic Proteolysis.

Dr. A. MACKENZIE read a paper on the Artificial Preparation of  $\beta$ -Hydroxybutyric Acid of Urine.

**NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.**—On Oct. 23rd, at the Dispensary, Broad-street, Nottingham, the inaugural address for the winter session of this society was delivered by Dr. Risien Russell on the Value of the Tendon-jerks and Superficial Reflexes in Diagnosis. Dr. Russell first called attention to the value of the plantar reflex and tendo Achillis jerk in diagnosis. The former had received a large amount of attention in this country as well as abroad, but very little attention appeared to have been paid in this country to the state of the tendo Achillis jerk as an aid in diagnosis. After referring to the significance of the alteration of the plantar reflex known as "Babinski's sign" or the "extensor response," from the presence of which a lesion of the pyramidal system might be inferred,

he pointed to certain fallacies that had to be avoided, and in support of the value of the phenomenon he quoted three cases from among many in which the "extensor response" had been a great help to him in arriving at a correct diagnosis. The state of the tendo Achillis jerk had been regarded as of especial value in the diagnosis of early tabes and in the differential diagnosis of real from hysterical sciatica, and he could confirm the statements that had been made by neurologists on the continent and in America with regard to the significance of alterations of this jerk. It was especially in cases of tabes in which the knee-jerks were still preserved that loss of the tendo Achillis jerk had proved of service in the diagnosis of this disease. In sciatica the tendo Achillis jerk was commonly abolished on the affected side, whereas this was not the case in hysterical sciatica. As an illustration of the way in which the tendon-jerks assisted in the separation of one form of organic disease of the nervous system from another he quoted cases with atrophy of the muscles of the upper limbs in which the state of the tendon-jerks went far to establish a correct diagnosis. This afforded him an opportunity of indicating the significance of the jaw-jerk and of pointing to its value in the differential diagnosis of cases such as those to which he referred. Finally, he dealt with the help to be obtained from the tendon-jerks and superficial reflexes when attempting to localise the exact situation of a lesion of the spinal cord. He also referred to the fact that the state of the tendon-jerks of the lower limbs served to indicate the degree of severity of a lesion of the spinal cord above the level of the lumbar enlargement. In incomplete transverse lesions, such as commonly resulted in myelitis, there was ankle clonus and the knee-jerks were exaggerated, whereas with complete transverse lesions, such as were usually caused by fracture-dislocation of the spinal column, there was no ankle clonus and the knee-jerks were abolished. A satisfactory explanation of why there should be this difference had been supplied by the results of Sherrington's experimental observations, which made it clear that augmentor influences passed from the ponto-cerebellar region to the spinal segments to maintain muscle tonus. Incomplete transverse lesions of the spinal cord, while sufficient to prevent the inhibitory influence of the cerebral centres from reaching the spinal segments, still allowed the augmentor influences to reach them, whereas in complete transverse lesions the augmentor influences were also cut off and the spinal segments in man did not possess sufficient autonomy to be capable of preserving muscle tonus in the absence of the augmentor influences from above. A case had recently been recorded by Mills in which there was ankle clonus while the knee-jerks were absent, a rare event in that only ten similar cases could be collected from the literature on the subject. This indicated a limited lesion in the lumbar cord and one of the affections suggested that might possibly have given rise to this combination was disseminated sclerosis; but highly probable as it seemed, in a large experience of this disease Dr. Russell had only met with two cases in which the diagnosis seemed likely and in which the knee-jerks were absent. He would always hesitate to diagnose disseminated sclerosis in a case in which the knee-jerks were absent, although such a state of things was, of course, possible. The paper was illustrated by lantern slides of the various morbid conditions to which reference was made.

**LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.**—A meeting of this society was held on Nov. 1st, Dr. A. G. BARRS, the President, being in the chair.—Dr. James Braithwaite read a paper on a Possible Factor in the Causation of Cancer, in which he stated his belief that probably an excess of salt in the diet along with either an unnecessary amount of food, and especially meat, or non-use of the nutrient supplied to the tissues, as in old age and in organs such as the womb and breast, was the cause of cancer. The excess of salt, however, was the necessary factor. This was illustrated by the comparative exemption of certain people and animals. Haviland's map of cancer in England was explained by the diet of the people, which varied with the kind of farming, and the farming with the geology. Cancer houses were also explainable on this hypothesis, which Dr. Braithwaite thought to be contradicted by no known facts about the disease. At the same time, he did not consider the theory proved. It was merely a matter for consideration and experiment.—In the discussion Dr. E. F. Trevelyan said that Dr. Braithwaite had brought forward no

satisfactory evidence to show that salt was in any sense even a contributory factor in the causation of cancer. On the other hand, he thought that more systematised efforts than hitherto should be made in order to throw light on the etiology of this ever-increasing disease. Such an object would, in his opinion, be best promoted by the establishment of a league against cancer which should collect evidence respecting all aspects of the question, indicate the more profitable lines of research, and perhaps provide the necessary means to young workers in this pressing field of investigation.—The President, Mr. P. J. Cammidge, Dr. T. Churton, Mr. J. W. Draper, and Dr. G. E. Young also joined in the discussion, and Dr. Braithwaite replied.—Mr. Lawford Knaggs read a paper on Inflammation in Growing Bone arising from Cartilage. Special attention was directed to the predisposing influence of ligament strain and tendon pull or of injury at the juxta-epiphyseal line up to complete separation. The consequences were one of the following: (1) acute periosteal abscess, (2) acute osteo-myelitis, (3) acute septic arthritis, (4) separation of an epiphysis, or (5) acute deep-seated abscess. Each of these subjects received separate notice and nearly all the points were illustrated by lantern slides from specimens. It was suggested that otorrhœa and mastoid abscess not infrequently resulted from this disease in infants less than one year old, before which time the temporo-squamosal suture was occupied by a disc of cartilage which was to all intents and purposes a conjugal cartilage. The immunity of bones developed in membrane was attributed to the absence of the epiphyseal cartilage and this juxta-epiphyseal area.—Mr. H. Littlewood mentioned a case where the path along which infection had spread to the joint was the tendon of the popliteus muscle.—Mr. Pridgin Teale also took part in the discussion and Mr. Knaggs replied.—The following cases, pathological specimens, &c., were shown:—Dr. A. L. Whitehead: A Successful Case of Temporo-sphenoidal Abscess.—Mr. J. Holmes: A Hunting Emergency Case.—Dr. A. Bronner (Bradford): (1) Recent Cases of Extraction of Senile Cataract without Iridectomy; and (2) Apparatus for the Treatment of Dry Catarrh of the Middle-ear by Suction.—Dr. T. Wardrop Griffith: (1) Traction Diverticulum of the Oesophagus; and (2) two examples of Specific Ulceration of the Palate in Children.—Dr. E. O. Croft: Specimen of Primary Cancer of the Labium (Growth and Microscopical Section).—Dr. E. Ward: A Tuberculous Testis.—Mr. Littlewood: (1) Osteoma of the Upper Jaw; (2) two specimens of Epithelioma of the Upper Jaw; and (3) Ovarian Tumour with Twisted Pedicle removed from a patient seven months pregnant.—Mr. Mayo Robson: A case of well-marked Charcot's Disease of the Knee.—Dr. J. B. Hellier: Cystic Myoma Uteri removed by Abdominal Hysterectomy.—Mr. B. G. A. Moynihan: Two cases of Spina Bifida, one Cervical and the other Lumbar, treated by Excision of the Sac.—Mr. W. H. Brown: Ossification of the Pyramidalis Muscle after Suprapubic Cystotomy.—Dr. Trevelyan: A case of Raynaud's Disease with Marked Trophic Changes in the Finger-ends.

**MIDLAND MEDICAL SOCIETY.**—The annual meeting of this society was held at the Birmingham Medical Institute on Oct. 16th, Mr. Jordan Lloyd, the President, being in the chair.—Mr. A. Elmslie Crabbe was elected a member of the society.—The following officers were elected for the ensuing session:—President: Mr. Arthur Oakes. Treasurer: Mr. John Garner. Secretaries: Mr. Christopher Martin and Dr. James W. Russell. Members of council: Mr. W. F. Haslam, Mr. Newton, Mr. E. B. Whitcombe, and Dr. Wood White.—The first ordinary meeting was held on Oct. 30th at the Birmingham Medical Institute, Mr. Oakes, the President, being in the chair.—Dr. M. S. Maclean, Dr. I. L. McNeill, Dr. J. T. Hewetson, Dr. J. R. Charles, and Dr. James E. H. Sawyer were elected members of the society.—The following specimens were shown:—Mr. Gilbert Barling showed a male patient, aged 48 years, upon whom he had performed Albert's Gastrostomy five and a half years previously for what was then believed to be malignant disease of the oesophagus. At the present time the man was able to follow his occupation as an edge-tool maker. He looked fairly well and vigorous and wore in the gastrostomy opening a tube of five-eighths of an inch diameter through which he was able to introduce foods of all kinds if finely divided, and there was practically no leaking at all. There was a hernia through the weakened abdominal wall where the stomach was brought through the left rectus, but this caused no inconvenience. The lapse of time having shown that the stricture was not malignant it was proposed to make an

attempt to dilate the stricture from below, and if this succeeded to close the gastric opening.—Dr. F. Edge showed a patient upon whom he had performed Oöphorectomy for Recurrent Inoperable Cancer of the Breast. The left breast was amputated on April 10th, 1900. On Oct. 17th the pectoral muscles were divided and the glands were found to be shotty above the clavicle and on the vessels at the root of the neck. In February, 1901, the right breast and right axillary glands became involved. On March 10th oöphorectomy was performed per vaginam. On Oct. 30th the glands and breast lumps were quite soft and had practically cleared up. The weight increased two stones and the general well-being was much improved. Thyroid extract had not hitherto been given, but Dr. Edge now intended to make use of it.—Dr. J. G. Emanuel showed a case of Saccular Aneurysm arising from the transverse part of the arch of the aorta. The specimen was from a soldier who had contracted syphilis in India three years before the symptoms of aneurysm developed. He died 15 months after his first symptom from pressure on the trachea.

**SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.**—A meeting of this society was held on Oct. 24th, the President, Dr. C. H. Willey, being in the chair.—Mr. R. J. Pye-Smith showed a case of Unilateral Congenital Dislocation of the Hip which he had shown last February, to illustrate the results of treatment. The displacement had been reduced by Lorenz's method of manipulation under an anæsthetic and the hip had been kept for nearly four months in a plaster-of-Paris case. The deformity and limp had now disappeared and a second skiagram showed practical symmetry.—Mr. Edward Skinner showed specimens from a case of Cancer of the Lung.—Mr. E. J. Scolah exhibited microscopical specimens of Bronchial Glands, Liver, Spleen, and Kidney from a case of Lymphadenoma shown last session.—Dr. A. J. Hall showed the following cases: 1. Primary Spastic Paraplegia in a man, aged 39 years. 2. Two cases of Trade Eczema. Both patients were middle-aged women who worked as "scratch brushers." The irritant appeared to be the "sour beer" with which they brushed the silver goods. 3. Lupus Vulgaris and Lupus Erythematosus in the same patient, a girl, aged 20 years. Lupus began at the side of the nose eight years ago, shortly after she had been nursing a woman who died from consumption. There was some destruction of both alæ nasi and the upper gum was affected. Lupus erythematosus appeared much later and had twice disappeared and recurred. At the present time it had an extensive "butterfly" distribution.—Dr. S. White showed (1) a Post-rectal Dermoid containing Bone; (2) an Unruptured Tubal Gestation; and (3) a Dilated Vermiform Appendix removed from the sac of an Inguinal Hernia.—Dr. S. Riseley showed a case of Double Dislocation of the Lens.—Mr. S. Snell showed a case of (1) Vascular Growth on the Lower and Inner Wall of the Orbit. There was marked proptosis and the surface of the sclerotic below the tumour was covered by a nævoid condition of vessels.—Mr. Pye-Smith read a paper entitled "Four Cases of Gastric Ulcer in which Operation was performed together with One Case not operated on, Two Cases operated on by others, and Three Cases of Exploration for Suspected Perforation."

**GLASGOW SOUTHERN MEDICAL SOCIETY.**—At a meeting of this society held on Oct. 31st Dr. John Stewart gave his Presidential Address. In the course of his remarks he referred briefly to the present position of medical science and dwelt on the necessity of the general medical practitioner keeping himself well abreast of the times. The general practitioner stood between the patient on the one hand and the consulting specialist on the other, and the successful carrying out of the latter's recommendations depended greatly on the general practitioner. The idea, now somewhat prevalent, that the general practitioner must give way in time to the specialist was due, he thought, to the greater elaboration of the art as distinguished from the science. Proceeding, he contrasted the general practitioner of to-day with him of 20 years ago and contended that the practitioner had progressed proportionately with the science and art of medicine. With reference to the objects of the society of which he had the honour to be president he referred in particular to the mutual improvement in professional knowledge accruing to the members and to the corresponding advantages obtained in their work as practitioners. Touching on another

great object of the society—namely, the promotion of amicable relationships between the members—he showed how this friendship could also help the cause of medical science through the rendering of mutual assistance in family practice. In concluding an interesting address he expressed the hope that the future development of medical practice would not tend too much in the direction of a greater subdivision of labour or to an increase of the number of practitioners devoted solely to one particular branch. Rather did he hope for the production of a highly-specialised general practitioner, the very existence of whom would insure that consultants and specialists would be men of outstanding merit in their respective departments.—On the motion of Dr. James Hamilton a very cordial vote of thanks was awarded Dr. Stewart for his address.

**NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.**—A meeting of this society was held at Liverpool on Oct. 18th, Dr. T. B. Grimsdale, the President, being in the chair.—Dr. W. Japp Sinclair (Manchester) exhibited an Improved Portable Apparatus for Continual Irrigation with Fluid at a Constant Temperature and explained its use.—The President showed a specimen of Cancer of the Cervix in a Uterus with three and a half months' pregnancy. The symptoms of bleeding and discharge had first declared themselves with the commencement of the pregnancy. The uterus was removed successfully by vaginal hysterectomy.—Dr. J. E. Gemmell (Liverpool) showed a Uterus with four and a half months' pregnancy and extensive cancer of the cervix, which he had removed by vaginal hysterectomy. Owing to the size of the uterus it had been found necessary, after separating the bladder, to slit up the anterior wall of the cervix and uterus as far as the peritoneal fold and through this opening to empty the cavity. The subsequent steps of the operation were easy and the patient recovered and was reported to be well 12 months later.—The cases were discussed by Dr. Lloyd Roberts, Dr. Briggs, Dr. Garner, and Dr. Davies.—Dr. Lloyd Roberts (Manchester) showed a pair of Large Ovarian Cysts with Papillomatous Degeneration removed by Abdominal Section. None of the cysts had burst and the peritoneum had not become infected by the growths. There was no ascites, its absence being probably associated with the fact of the non-infection of the peritoneum. The patient made a good recovery.—Dr. Sinclair related a case of Cesarean Section performed for the second time in the same patient. The uterine wound was so intimately adherent to the abdominal wound that the new incision was carried directly through into the uterus without opening the peritoneal cavity. The child was delivered through this opening. The patient was not sterilised by ligature of the tubes or otherwise. Both mother and child recovered.—A discussion followed on the dangers of subsequent pregnancy after Cesarean section had been performed, and on the question of sterilising operations under such circumstances. The President, Dr. Lloyd Roberts, Dr. Davies, Dr. Croft, Dr. Briggs, and Dr. Lea took part in it and Dr. Sinclair replied.

**ÆSCULAPIAN SOCIETY.**—A meeting of this society was held on Nov. 1st, the President, Dr. Arthur T. Davies, being in the chair.—The President showed (1) a man, aged 26 years, the subject of marked Myxedema; (2) a specimen of Carcinoma of the Esophagus and Tubercle of the Lung from a man, aged 48 years, who had been losing weight for two years and had had a cough for three years before admission to the hospital; and (3) a Perforation of the Cæcum due to Typhoid Fever in a child, aged four years, whose intestine showed other small ulcers in the neighbourhood.—Mr. Harold Barnard showed a woman, aged 35 years, who had recovered from Strangulated Femoral Hernia. The bowels acted well before the operation. At the operation there was pus in the sac of the small femoral hernia and a little piece of the bowel was gangrenous. The symptoms had lasted for seven days.—Mr. W. Campbell M'Donnell related a case of a man, aged 67 years, who, having an old Scrotal Hernia, collapsed after three days' constipation, and complained of abdominal pain from the hernia to the umbilicus. The hernia was irreducible. On the sixth day of constipation he had stercoraceous vomiting. After nine days' constipation the bowels acted and recovery ensued.—A discussion followed.

**NEWPORT MEDICAL SOCIETY.**—At the annual meeting of the Newport Medical Society held at the Newport and County Hospital, Cardiff-road, the following officers for the session 1901-1902 were elected:—President: Dr. T. G.

Macormack. President-elect: Mr. C. Stuart Vines. Honorary secretary and treasurer: Dr. J. Howard-Jones. Honorary librarian: Mr. A. Falconer Hayden. Committee: Mr. O. W. Morgan, Dr. Garrod Thomas, Mr. H. E. Williams, and Mr. W. Basset.—The honorary secretary reported that the membership had increased during the last session from 27 to 33. At the next meeting, which will be held on Friday, Nov. 29th, Mr. C. Stonham, C.M.G., who was recently in charge of the Langham Field Hospital (Yeomanry Hospital) in the South African War, will read a paper on "The Surgery of the Boer War."

## Reviews and Notices of Books.

*The Case for the Factory Acts.* Edited by Mrs. SIDNEY WEBB, with a Preface by Mrs. HUMPHRY WARD. London: Grant Richards. 1901. Pp. 233. Price 2s. 6d.

THIS book is described in the words of one of its authors as being "the outcome of a small conference of ladies of all shades of opinion, yet agreeing in a common belief in the advantages of factory legislation, and especially in the advantages to working women of such legislation." At the conference it was decided to form a society, which was named the Labour Law Association, and "as a first step the association decided to get a small book written." Mrs. Sidney Webb, Miss Clementina Black, and Miss Tuckwell were appointed to arrange for the preparation and publication of the book, and these ladies have written respectively on the Economics of Factory Legislation, Some Current Objections to Factory Legislation for Women, and the More Obvious Defects in our Factory Code. The other two chapters are entitled, The Historical Development of the Factory Acts, written by Miss B. L. Hutchins, and Colonial Developments in Factory Legislation, by Mrs. W. P. Reeves. There is an appendix of three pages, giving a list of books recommended to those who wish for further information.

Mrs. Sidney Webb, in the first paper, states that women did not concern themselves with such matters as factory legislation a century ago, and that "the women of to-day are no cleverer" than the men of 100 years ago. But the women of to-day have this great advantage. They can study the history of factory legislation and they can see that men began "by making every mistake that could possibly be made on the subject." Unfortunately, some women even now, it seems, are arguing exactly as the men of their class argued when they too had no experience to guide them. A word of caution is required by such people, and Mrs. Webb gives it. "My warning is," she says, "to form no conclusions till you know the facts." It may be presumed that Mrs. Webb considers that she is armed with this knowledge, and it is interesting to see how she applies it to the solution of difficulties which have been the despair of less enlightened people. A true knowledge of the economics of factory legislation leads her to throw a new light on agricultural depression. Some trades are regulated by the legal enforcement of common rules. These trades tend to expand. "The farmer has been free from all common rules. He has always been free to hire his labour at the lowest possible wages." He is able to insist that the day's toil shall endure from sunrise to sunset, and he is not obliged to take expensive precautions to insure his labourers against the effects of unhealthy exposure. "Poor agriculture" has therefore "gone increasingly to the wall and finds itself losing more and more even of the home trade." Is it too much to hope that Mrs. Webb will be able to draw up the regulations which are necessary to put agriculture on a firm footing and at the same time increase the comfort of the labouring classes? At present it is to be feared that shepherds often work more than an eight-hours' day, and

that ploughmen are occasionally exposed to inclement weather. It would be a noble work even for a "brilliant writer, economist, and historian"—all of which qualifications we have Mrs. Humphry Ward's authority for saying are possessed by Mrs. Webb.

Miss Clementina Black in her essay on Some Current Objections to Factory Legislation for Women incidentally informs us that "a publisher does not offer a lower royalty to Mrs. Humphry Ward than to Mr. George Meredith." And this fact may perhaps incline readers to weigh well Mrs. Ward's golden words and to accept her opinion that the writers are "well acquainted with the subjects on which they speak." For her own part she modestly claims "no special knowledge of the great matters with which they deal," but she turns to the "vast English public" with "beckoning finger" which expresses the profit and pleasure she has derived from the book, and she passes on to express her regret that more is not generally known of the Factory Acts, their origin and their results. "What the Factory Acts are—how they came about and what have been their effects. Strange! that of one of the noblest chapters in the history of the nineteenth century there should be so little general knowledge among us to-day." There is plenty of good sound literature on the subject, and to those seriously interested in the matter it may be worth while to point out that what the Factory Acts are may best be understood by reading them attentively, and that copies may be obtained at Messrs. Eyre and Spottiswoode's. The way in which they have been administered is best seen by reading the annual reports of the Chief Inspector of Workshops and Factories. To the imaginative writer, however, facts may have a repressing influence, and if Mrs. Ward had read only the latest of the factory reports it would have prevented her from writing her preface in its present form.

It has been incidentally mentioned that the book contains an appendix to which those wishing to make a study of the subject are recommended. The exact treatises which we have mentioned are not included in this list, but it mentions two books by "S. and B. Webb," one by Sidney Webb and Harold Cox, and two by Mrs. Sidney Webb. In her essay on the More Obvious Defects in our Factory Code Miss Gertrude Tuckwell points out that owing to recent agitations on the subjects of lead and phosphorus poisoning "the public has learnt that there are in certain trades the added danger presented by liability to some special disease." The late Dr. J. T. Arlidge's great work on the Hygiene, Diseases, and Mortality of Occupations was published as long ago as the year 1892. It is not included in Mrs. S. Webb's list of books.

Miss B. L. Hutchins in her essay on the Historical Development of the Factory Acts, instead of following the Acts in chronological order, adopts the classification used in a German text-book on the subject and treats of them under their different aspects: (1) extent of their application to industries and classes of persons; (2) scope and protection, including limitation of hours, provision for health and safety, and education; and (3) method of administration. The essay, though not up to date and occasionally ungrammatical, is not without merit, and the writer has apparently taken pains to get a good general idea of the subject on which she wishes to instruct the public.

Mrs. W. P. Reeves's article on Colonial Developments in Factory Legislation is not entirely lacking in the element of humour. Victoria and New Zealand, we are told, furnish "the most progressive factory legislation." Both colonies have had the courage to adopt principles of labour legislation which other countries "are still painfully boggling over." In one of these enlightened and progressive countries a wide definition given to the term "factory." A wife and her husband still count as one person, but any two persons not married to one another constitute "a factory" when they are working together.

"A mother and child make a factory and have to be registered as such. They must observe factory regulations as to hours and sanitation and are open to inspection at all hours." This thing apparently seems well in the eyes of Mrs. W. P. Reeves, and the system generally, she thinks, has its lessons for the mother country. Possibly it has. Perhaps in this respect the mother country will contrive to "boggle" on as it is.

To the few people who know about the Factory Laws and their administration and who have sufficient leisure for light reading this book may prove amusing, but with the exception of Miss Hutchins's essay on the Historical Development of the Acts (which might with advantage be expanded, brought up to date, carefully edited, and published separately), the book cannot be taken as a serious contribution to the literature of the subject.

*A Text-book on the Practice of Medicine.* By Dr. HERMANN EICHHORST, Professor of Special Pathology and Therapeutics and Director of the Medical Clinic in the University of Zürich. Authorised translation from the German. Edited by AUGUSTUS A. ESHNER, M.D., Professor of Clinical Medicine in the Philadelphia Polyclinic and Physician to the Philadelphia Hospital. Vol. I., pp. 628; Vol. II., pp. 590. With 84 Illustrations. London and Philadelphia: W. B. Saunders and Co. 1901. Price 26s.

For purposes of reference this text-book will be found useful, as it abounds in details that are not usually found in English text-books. Students will, however, be rather confused with the numerous sub-divisions under which most of the diseases are arranged. For instance, it would but little benefit a student preparing for his examinations to learn that "several forms of endocarditis have been distinguished and they have been designated ulcerative, verrucose, and contracting." The last term is not used in English manuals, and we doubt whether any student would recognise the phrase "recurrent contracting endocarditis" as designating chronic valvular disease of the heart which has again become acute. The part of the work dealing with Diseases of the Nervous System is well carried out, although here again we are inclined to cavil at the numerous sub-divisions occurring under the headings "peripheral paralysis" and "neuralgia."

For a general text-book of medicine an unusual space is allotted to Diseases of the Skin, but for reference this is not at all to be deplored.

In the parts of the work devoted to treatment the decimal notation is retained as in the original, but the British equivalent is always given. The book is also of interest as a comparison between the Swiss and English methods of considering disease and its treatment, and those who are unable to read German will thank Dr. Eshner for the very able translation which he has made of Dr. Eichhorst's text-book.

*Modern Obstetrics, General and Operative.* By W. A. NEWMAN DORLAND, A.M., M.D. With 201 Illustrations. Second edition, revised and enlarged. London and Philadelphia: W. B. Saunders and Co. 1901. 8vo. Pp. 797. Price 16s.

To this, the second, edition of his text-book Dr. Dorland has added chapters on the Surgical Treatment of Puerperal Sepsis, Infant Mortality, Placental Transmission of Disease, the Serum-Therapy of Puerperal Sepsis, and the Role of the Liver in the Production of Puerperal Eclampsia. He holds that serum-therapy to be effective requires firstly, the accurate recognition of the form of infection with the early employment of the appropriate antitoxin; secondly, the dilution of the poisoned blood by the active introduction into the system of a normal salt solution, either by hypodermoclysis, by rectal clysmata, or by direct intravenous transmission; and thirdly, the restoration of the blood to

normal condition by measures that will increase leucocytosis or that will produce hyper-leucocytosis as from the administration of the nuclein preparations. The plan is still followed in this edition, as in the first, of giving the measurements of the foetal head and the pelvis in inches with their exact equivalents in centimetres to four places of decimals. The student cannot be expected, and will not try, to remember such figures. The easy method of regarding one centimetre as two-fifths of an inch and expressing the fraction as fifths of inches, or half a centimetre, is preferable to the one adopted, and is sufficiently accurate for all the purposes of pelvimetry. In discussing the differential diagnosis of various conditions, such as pregnancy and ovarian tumours, very useful tables are given containing the physical signs and symptoms likely to be of most use in making such a diagnosis. The line of practice advocated differs in a good many instances from that adopted in many English text-books, but Dr. Dorland's treatment is on the whole moderate and sound. In discussing post-partum hæmorrhage he would rely upon gauze plugging of the uterus before trying the effect of a hot douche, an order of procedure which we should reverse. Dickinson's method of controlling the hæmorrhage in such cases by seizing the uterus through the abdominal wall, lifting it out of the pelvis, and compressing it against the spine while the lower hand grasps and manipulates the cervix, is described and recommended. The book is not so good as many of our English text-books, but is on the whole trustworthy and appears to find some favour amongst American students and practitioners.

*Archæology, Education, and Medical and Charitable Institutions of Glasgow.* Edited by MAGNUS MACLEAN. Glasgow: Published by the Local Committee for the meeting of the British Association (James Maclehose and Sons). 1901. Pp. 239. Price 3s. 6d.

IN connexion with the meeting of the British Association for the Advancement of Science which has this year been held in Glasgow the local committee has prepared three volumes, one of which is now before us, the other two dealing respectively with the Fauna, Flora, and Geology of the Clyde Area and the Local Industries of Glasgow. Mr. MacLean deserves credit for the manner in which he has brought within moderate compass and arranged in a convenient form an immense mass of information on a great diversity of subjects. As the title indicates, the book is divided into three sections and consists of 43 separate articles, most of them being by different authors, whose names are given. Part III.—Medical and Charitable Institutions—includes 29 such sub-headings contained in 60 pages, the most important of them having for their subjects the Faculty of Physicians and Surgeons, Anderson's College Medical School, St. Mungo's College Medical School, the Glasgow Royal Infirmary, the Western Infirmary, the Victoria Infirmary, Poor-law Hospitals and Infirmary of the Parish of Glasgow, Asylums of Glasgow, and Municipal Fever Hospitals. The University is described under Part II.—Education.

*Diseases of the Rectum.* By WILLIAM ALLINGHAM, F.R.C.S. Eng., and HERBERT ALLINGHAM, F.R.C.S. Eng. London: Baillière, Tindall, and Cox. Seventh edition. With 69 Illustrations. Pp. 471, demy 8vo. Price 12s. 6d. net.

THIS work is already so well known and its practical nature so valued that a seventh edition does not require elaborate criticism at our hands. The alterations are the work of Mr. Herbert Allingham, and his views on inguinal colotomy particularly, and on the subject of excision of the rectum for cancer, on which questions the chief differences from the original edition arise, are also familiar to medical readers. Mr. H. Allingham considers the question of age in the subjects of cancer of the rectum of the very highest

importance as regards the decision whether or not to employ excision. He finds recurrence in young subjects of most disheartening frequency in spite of the freest removal, and those who are familiar with his operative methods will not be inclined to accuse him of timidity in dealing with cases that require drastic measures. In performing excision he always employs a modification of Kraske's method, except for cases in which the disease is limited to the neighbourhood of the anus and sphincters. In these cases the perineal route is chosen. The practitioner will find the chapter on After-treatment of Cases of Operation for Hæmorrhoids of the greatest assistance. This is a subject that, considering the extreme frequency of the cases and the serious inconveniences arising from lack of careful after-treatment, does not commonly receive enough attention from the general practitioner, or even from the surgeon.

Another point upon which this book may be carefully studied with advantage is the question of palliative or operative treatment in cases of hæmorrhoids. The authors discuss the matter closely, showing what cases may reasonably be treated without any operation and what kinds of milder treatment are most suitable to their cure. The ligature is to be used in a vast proportion of cases. Mr. H. Allingham does not recommend cutting off the hæmorrhoids and is careful to secure a narrow base for application of the ligature. His method necessitates a longer convalescence than do some others, but Mr. Allingham claims for it that it secures practically absolute freedom from recurrence of the affection for the cure of which it was employed. As regards cancer of the rectum Mr. H. Allingham's work on inguinal colotomy has done much to secure for the operation its present favourable position. The operation as he performs it is one of great simplicity and need never be avoided on account of the patient's debility or abdominal distension. The most recent modification in the method is the abolition of the mesenteric stitch in favour of a Spencer Wells clip. This is passed through the mesentery closed and is then made to rest on the abdominal wall, gripping a piece of gauze. Thus the clip cannot slip through from the blade-end and the handles prevent it slipping through from the other. A few stitches are inserted between the skin and the musculo-serous coats of the bowel. The authors give excellent practical directions for finding the bowel when any difficulty arises and say: "There is no excuse for not being able to find the colon, nor is there any for making a mistake as to what part of the intestine is the colon. We have never yet seen a case in which both longitudinal bands and appendices epiploicæ have been absent in the large intestine." We have said enough to show that the seventh edition of this work will confirm the position which it already holds as a thoroughly sound and practical guide to the treatment of diseases of the rectum.

*Diseases of the Nose and Pharynx.* By J. B. BALL, M.D. Lond., Physician for Diseases of the Throat, Nose, and Ear, Lecturer on Diseases of the Nose and Ear, West London Post-Graduate College; formerly Physician to the West London Hospital. Fourth edition, 61 Illustrations. London: Baillière, Tindall, and Cox. 1901. Pp. 439. Price 7s. 6d.

THE last edition of Dr. Ball's book was only published in 1898, which is a proof of its popularity. He has not increased the size of the book since his last edition, though certain small additions and corrections have been made. He has thus been able to keep the work within a moderate compass while giving, as we have said before with regard to previous editions, a concise and intelligible description of the diseases of the nose, naso-pharynx, and accessory cavities. His views on general diagnosis show that Dr. Ball is able to impart his knowledge to others clearly and

concisely, though there is certainly one point in which improvement might be expected. The want of good drawings of pathological states of the nose and nasopharynx, to which we alluded in our earlier reviews of Dr. Ball's book, is still evident.

The chapter on Methods of Treatment contains valuable information of a practical character with regard to syringing and irrigating the nose. While speaking of inhalations again Dr. Ball gives many useful hints, and the same may be said of the directions for the use of the galvano-cautery. We quite agree with Dr. Ball in thinking that the existence of a non-diphtheritic membranous rhinitis cannot at present be denied; in fact, we think he might have made the statement in stronger terms. In the treatment of chronic rhinitis the directions to be given to the patient with regard to sniffing and blowing the nose are well worthy, we think, of a more wide application than is generally given to them; and we endorse Dr. Ball's veto with regard to the use of astringent sprays and powders in this disease. Dr. Ball is not impressed with the theory that ozena is at all frequently a sequel to suppuration in the accessory sinuses, and whether his view that this disease (fœtid atrophic rhinitis) will be proved to be due to a specific micro-organism is sound we venture to doubt. In operations on adenoid vegetations Dr. Ball declares his preference for Gottstein's post-nasal curette, having now entirely given up using any form of forceps. He also prefers the use of chloroform for young children, and ether for older children and adults, and, for his own part, is not in favour of nitrous oxide gas.

The chapter on Reflex Nasal Neurosis is very complete, and in speaking of hay fever Dr. Ball describes every approved variety of treatment. Further points upon which we congratulate Dr. Ball are that when discussing deformities of the septum he has not been led into those subtle and useless subdivisions which have been adopted by some writers; while the parts of the book on morbid growths and infectious disorders of the naso-pharynx and pharynx are excellent; as is the description of pharyngeal diphtheria.

#### LIBRARY TABLE.

*Surgical Applied Anatomy.* By Sir FREDERICK TREVES, K.C.V.O., C.B., F.R.C.S. Eng., consulting surgeon to the London Hospital, &c. New edition, revised by the author with the assistance of ARTHUR KEITH, M.D. Aberd., F.R.C.S. Eng., Lecturer on Anatomy at the London Hospital. Twenty-fourth thousand. London: Cassell and Co. 1901. Pp. 571. Price 9s.—This the last edition of Sir Frederick Treves's admirable manual can only be said to be an improvement upon its predecessors by reason of the most modern views of surgery being incorporated in it, for all the other issues of the book were as complete as they could be, having regard to the state of knowledge at the time at which they were written. That 24,000 copies have been printed shows that the book is appreciated at its true worth, and we can only say that not only practitioners and senior students will find the book eminently useful, but that junior students who are just commencing the apparently unattractive study of anatomy will find by reading it that the dry facts of that science will have a real meaning and will be imbued with interest. We must give a word of praise to the publishers for printing a detailed statement of the various editions and the dates at which they appeared and can only exhort other publishers to do likewise.

*Unprofessional Tales.* By NORMYX. London: T. Fisher Unwin. 1901. Pp. 248. Price 6s.—This book is dedicated to Ouida and we hope that that accomplished lady values the dedication, for of all the drivel which it has been our bad

fortune to read this book takes first place. Some silly books are amusing—this one is dull. We can do no better than quote a few sentences which express our opinion perfectly: "Convince yourselves that I am perfectly calm.<sup>1</sup> ..... I do not profess to know what it means or whether, indeed, it means anything."

*Home Exercises for Spinal Curvature, adapted from Ling's Swedish System of Medical Gymnastics.* By RICHARD TIMBERG, graduate of the Royal Gymnastic Institute of Stockholm. London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. Pp. 70. Price 2s. net.—This little book is well adapted for those who are anxious to treat either themselves or those under their charge by means of simple gymnastic exercises involving the use of no apparatus other than a broomstick. Lateral curvature is of course the kind of curvature chiefly dealt with, though angular curvatures are just mentioned. Exercises carefully and rationally used are nowadays, in addition to some simple forms of apparatus, the chief method relied upon for the removal of lateral curvatures, and Mr. Timberg's little book will be found valuable as giving a clear account of the necessary exercises. We are glad to see that he insists upon the advisability of the exercises being supervised by some competent person. But there are many cases in which a patient must do the best he can for himself and careful attention to the rules laid down by Mr. Timberg will enable him to get good results. He can check his position either by standing between two mirrors, or in most cases, at any rate, he can get a friend to tell him whether he is standing straight or not.

*Report on the Health and Sanitary Works in Calcutta for the Year 1900-1901.* By J. NIELD COOK, D.P.H., Health Officer. Calcutta: Printed at the Municipal Press. 1901. Pp. 56 (tables included).—According to the census of 1901 Calcutta had a total population of 843,487, being an increase of 181,927, or 23·7 per cent. over the figures of the census of 1891. In his report on the health of the city during the calendar year 1900 Mr. Cook says that the total number of children born, exclusive of still-births, was 10,773, which gives a ratio of 12·7 per 1000 per annum. The total number of deaths was 36,728, which gives a ratio of 43·5 per 1000 per annum. The "five principal diseases" and the total deaths therefrom were as follows: cholera, 2754 deaths; plague, 8354 deaths; dysentery and diarrhoea, 4126 deaths; fever, 7642 deaths; and small-pox, 1010 deaths. Mr. Cook considers that the mortality of Calcutta is progressing in spite of all the work that has been done and the money that has been spent to improve the sanitation of the town. During the last decade three diseases not previously recorded in Calcutta have made their appearance—namely, influenza, cerebro-spinal fever, and bubonic plague. The maximum shade temperature was 103·6° F. in April; the minimum was 50·8° in January.

*Ceylon: Administration Reports. Part IV. Miscellaneous. Medical.* Pp. 67.—The estimated population of the Island of Ceylon on Dec. 31st, 1900, was 3,612,303. During the year 136,051 births were registered and 100,873 deaths, giving a birth-rate of 38·2 per 1000 and a death-rate of 28·3 per 1000 calculated on the estimated population at the middle of the year. Mr. Allan Perry, Principal Civil Medical Officer and Inspector-General of Hospitals, states that the public health of the island was good during the year 1900. There was an absence of widespread outbreaks of malarial fever, but cases of cholera and small-pox were numerous. The number of cases of enteric fever treated in the various hospitals throughout the island was 224, with 77 deaths. No case of plague

<sup>1</sup> Cf. Pet Marjorie:

"But she was more than usual calm,  
She did not give a single dam."

occurred. In a report published in the appendix Dr. T. F. Garvin states that the Boer Camp at Diyatalawa, 157 miles from Colombo, was opened on August 9th, 1900, when the first batch of prisoners of war from South Africa arrived. The number in camp on Dec. 31st was 4256. The number of deaths up to the end of the year was 73 out of a total population of 4396, or 1·6 per cent. Enteric fever first began in the camp on Sept. 24th; the total number of cases to the end of the year was 601, and of those 50 died, being a mortality of 8·3 per cent.

*The Life History of British Serpents.* By GERALD R. LEIGHTON, M.D. Edin. Edinburgh and London: William Blackwood and Sons. 1901. Pp. 383. Price 5s.—The average dweller in these islands has a hazy idea that snakes are in out-of-the-way places and thinks that they all "sting," that they are all poisonous, and that they are slimy. The better informed person is quite conversant with the grass- or ring-snake and with the adder. He knows that the former is harmless, with the exception that it can put forth a heathenish smell, and that the latter can and does inflict a poisonous bite. He also knows that snakes are not slimy. The expert is aware of the existence of a third kind—namely, the smooth snake, *Coronella Austriaca*. Dr. Leighton is an expert and any ordinary person who digests the book before us will have a greater knowledge of snakes than he ever had before. On the vexed question as to whether the female adder receives her young ones into her gullet for safety when danger threatens, Dr. Leighton, as becomes a scientific man, preserves an open mind. There is, at all events, no reason which renders it impossible for a female adder to swallow her young. Plenty of observers have seen such apparent swallowing or have seen the young adders coming forth from the mother's mouth, but apparently no one has as yet captured a female adder with the young in the gullet. At present we can but say that the fact is not proven.

*Advice to Women on the Care of the Health Before, During, and After Confinement.* By FLORENCE STACPOOLE, Diplômée of the London Obstetrical Society and Lecturer to the National Health Society. Third edition. London: Cassell and Co. 1901. Pp. 184. Price 2s.—This little book, which has reached a third edition, contains a good deal of useful information for women concerning pregnancy and child-birth. It is clearly written and the facts which it is important for a mother or a nurse to know are well described. The author, however, has added a number of prescriptions for use in such conditions as indigestion, diarrhoea, neuralgia, and other disorders of pregnancy. These prescriptions, she states in the preface, have been prepared for her by an "experienced doctor." They are entirely out of place in such a work and should never have been inserted. Under no conditions could we recommend a book which contains such prescriptions, encouraging as it does the foolish and dangerous habit of self-prescribing without the advice of a medical man. We must point out to the author that there is no such thing as a "diplômée" of the Obstetrical Society of London and that she has no right to describe herself as such on the title-page.

*Small-pox: its Prevention, Treatment, and History.* London: Florence White. Pp. 82. Price 6d.—This little compilation is well-timed in its appearance. It is obviously intended for popular use and it is an exception to many medical pamphlets so intended by being accurate and not sensational. The writer, we notice, accepts a microbic origin of the disease without question. The case for vaccination is not so strongly put as is justifiable and as we should like to have seen it put. This defect, however, is to a large extent remedied by a concise appendix giving some authoritative opinions in favour of vaccination, mainly from the pamphlet issued by the Council of the British

Medical Association in 1898. Doubtless this book will find a wide general sale at the present time, and in spite of its somewhat awe-striking cover it is the kind of popular medical work which does the least harm in lay hands. Miss Florence White is, we imagine, the first lady-publisher to issue anything of this kind, and she may be congratulated upon her enterprise.

#### JOURNALS AND MAGAZINES.

*The Scientific Roll and Magazine of Systematised Notes.* Conducted by ALEXANDER RAMSAY. Bacteria. Vol. I., No. 3. London: Published for the proprietor by R. L. Sharland. 1901. Pp. 31. Price 1s.—This publication has aims somewhat similar to those which were possessed by the "Annus Medicus." The present number is concerned with bacteriology. The names of the authors are placed alphabetically under the year in which their communications were published. In order, therefore, to find a certain reference the reader must be aware of the name of the author and not only of the nature of the communication. If the reader wishes to ascertain what has been written concerning certain subjects he has to glance through the whole publication to find the information he requires. As it stands, however, the publication should prove a valuable one. We are informed that the number of subscribers is now 45; when this has increased to 200 the work will be issued monthly. We trust the desired number will be forthcoming. We should add that the roll is not drawn from English sources only, but foreign works, especially German and French, have also been consulted.

### New Inventions.

#### THE FUMELINE LAMP.

THE fumeline lamp represented in the accompanying illustration is used for the vaporisation of a volatile antiseptic or disinfectant. It consists of a cylindrical support about three and a half inches high and a shallow dish or saucer, both made of tin-plate. Fumeline is the designation of a power-



fully antiseptic mixture, two teaspoonfuls of which are put into the dish, and an ordinary night-light is then placed underneath as a source of heat. The apparatus is extremely simple and danger from fire seems to be almost impossible; the bottle containing the fumeline is labeled "poison," and this substance must evidently be kept out of reach of children or delirious persons. The lamp is so constructed that if the light is not required in the room

the night-light may be shielded from view. The agents for the apparatus are Messrs. William Edwards and Son, 157, Queen Victoria-street, E.C. The price, including a supply of fumeline, is 2s. 6d.

**WINSLEY SANATORIUM FOR PHTHISIS.**—At the meeting of the Sanitary Committee of the Bath Town Council held on Oct. 28th the sub-committee recommended that the Council should contribute £500 towards the cost of the Winsley Sanatorium and that the corporation should have the right of the use of two beds at an annual cost of £65 each and also be represented on the committee of management of the institution. The Sanitary Committee unanimously supported the recommendation, which will now be brought before the town council.

# THE LANCET.

LONDON: SATURDAY, NOVEMBER 9, 1901.

## Dr. Glover and the General Medical Council.

IN another column will be found a letter from Dr. GLOVER announcing his intention not to offer himself as a candidate at the forthcoming election of Direct Representatives of the medical profession upon the General Medical Council. Dr. GLOVER'S reason for his action is one that must be satisfactory to everybody, however much the course that he is taking may be regretted. He is warned by his medical advisers that he cannot, with safety to himself, discharge the onerous duties of practice and at the same time support the grave and delicate responsibilities that devolve upon the tiny group of members who represent upon the General Medical Council the popular vote of the profession as a whole. It is characteristic of Dr. GLOVER that when he found that he could not give his best to the profession he retired rather than offer services which, tried by his own high estimate, he was not able to deem completely efficacious. Dr. GLOVER has served the medical profession as a Direct Representative on the Council for 15 years, having been originally elected in 1886, the year when the principle of direct representation was conceded, with Mr. WHEELHOUSE and Sir WALTER FOSTER as his colleagues. He was re-elected in 1891 at the head of the poll with the same colleagues, and was again re-elected in 1896 with Dr. RENTOUL and Mr. GEORGE BROWN. During the whole of this long service he has had ever before him his desire to render the profession that he loves an honourable and dignified calling.

We do not propose to enumerate the claims that Dr. GLOVER has upon the consideration of his large constituency. Are not his actions at the Council Board recorded in page after page of the reports of the proceedings at the General Medical Council, and do they not always show that his single ambition was to discharge his trust worthily and wisely? But we may remind our readers in a few words that their special confidence in Dr. GLOVER, as shown by electing him and re-electing him as often as he was able to offer himself to their suffrages, was particularly justified. Dr. GLOVER has not been a noisy advocate of his virtues, and in his brief election addresses he never made enormous promises, but his work was sure and sterling. One of his first votes in the Council was against discussions *in camera*, which were then considered more necessary than they are now, and which he stated should be reduced to a minimum. This was a very early declaration that hole-and-corner legislation by a small group for an enormous number of educated men could not be tolerated—it was tantamount to an assertion that the medical profession have a right to demand from the General Medical Council, and not only

from the Direct Representatives but from every member of that Council, an account of their conduct at the deliberations of the Council. The only way in which the medical profession could learn which members of the Council had a proper conception of their duties and which had not was by publicity. We make no secret of the fact that Dr. GLOVER was here carrying on the policy of THE LANCET, for it is perfectly well known that he has been for many years a valued colleague on the staff of this paper; but what we want to bring out is the credit that is due to Dr. GLOVER for the present familiarity of the medical profession and the lay public with the transactions of the General Medical Council. Dr. GLOVER, again, was particularly zealous in his efforts to elevate the standard of medical education of the country, while it was upon his motion that the Council instructed its Executive Committee to report on the disciplinary functions of the examining bodies, both universities and corporations. Here he showed himself the true reformer, raising a voice against the pernicious view that the General Medical Council is a congeries of gentlemen representing the interests of some two dozen educational centres instead of a body instituted for the protection of the public and employed in safeguarding the health of the public by educating the medical profession up to a proper pitch and ensuring that they regulate their conduct according to a high ethical model. The Acts of Parliament under which the Council exists provide but one punishment for all offences, whatever their degree and whatever their kind, so that the ignorant and half-accidental delinquents find themselves treated with the same rigour as the convicted forger—that is to say, their names are removed from the Medical Register if their "infamous conduct in a professional respect" is proved. Dr. GLOVER perceived that enormous pressure could be brought to bear upon the weak vessels of the medical profession through the examining bodies whence they obtain their qualifications to practise, what was required being that the examining bodies should consent to play their part. Hence his motion that a report should be prepared which would show what powers, if any, the various examining bodies possessed over their graduates or diplomates, for when such returns were made it would be certain that no university or corporation would dare to lag behind its fellows for long. All would have to show themselves anxious in the same degree to keep the Medical Register pure. The motion was a direct attack upon the narrow spirit which would make the representative of an examining body upon the General Medical Council conceive it to be his one duty to save his own corporation trouble, and it has already borne excellent fruit.

With regard to the question of registration of midwives Dr. GLOVER spoke with no uncertain voice. He agreed—and it is difficult to see where dissentients can be found—that something must be done to protect the lives of the parturient poor from the risks of being attended by women entirely ignorant of the first elements of puerperal safety. He considered that the training needed for midwives should be of a character to enable them to act as midwifery nurses in safe cases, while they should be required in all others to send for a medical man. He entirely

disapproved of the proposal of a course of three years' training for midwives to be followed by examination and registration:—firstly, because such a measure would create a class of nurses too costly to serve the needs of the poor women who constitute the section of the population requiring assistance during childbed; and, secondly, because there would be a danger under such a scheme of creating a semi-medical order, who would be competitors with medical men for patients, while not possessing the necessary qualifications. Certain shades of Dr. GLOVER'S views on this question, and on others, did not meet with our approval, a fact which did not turn him from his independence or shake our confidence in the valuable nature of his services to the medical profession as Direct Representative upon the General Medical Council. At about the date when we expected to be advocating the claims of Dr. GLOVER to a fourth election upon the General Medical Council we find ourselves bidding him adieu in his character of a Direct Representative. We do so most regretfully, and we know that our sentiments are very generally shared.

### The Report of the Committee on Navy Rations.

THE Committee appointed to inquire into the question of navy rations, meal hours of the sailors, and the management of canteens had a very important and at the same time very difficult subject submitted for their consideration. Not only had they to take up the general question of the victualling of the fleet in being, with special reference to the sufficiency or otherwise of the present ration and to the hours for meals on board ship (and consequently to the arrangements for the issue of the ration), but the retention of the system of "savings" which has been in force for upwards of 100 years, and to which the men of the navy are much attached, had to be taken into account, as well as the influence of the extension of late years of the system of canteens on shipboard. The effect which any of their recommendations might have, moreover, on the victualling of the fleet in time of war had to be borne in mind. By "savings" is meant monetary payment in lieu of rations and articles of diet in kind. Where the conditions are so complex and so many circumstances have to be taken into account, as in the present case, it follows that the report must be largely technical in character. It must be studied from an expert point of view, and carefully studied, in order to be properly appreciated and understood. We publish in another column a review of the report from the unconventional pen of a correspondent who is in an admirable position for knowing what he is talking about. It will be seen that he is very critical, but it will also be seen that he comes to the conclusion that the recommendations of the Committee are praiseworthy. We think that any of our readers who study the report will find themselves in agreement with him.

It is clear that the Committee have expended a great deal of time and labour in taking and digesting the evidence of a large number of witnesses able to give practical information. We do not suppose that there is, or can be, any finality about the recommendations of the Committee in a matter of dietary where so much may be learned from actual trial and experience, but if we may judge from our examination of

them and from the opinion expressed by some experienced naval medical officers to us, we may safely congratulate those responsible for the report on having taken a decidedly forward step in advancing the health and comfort of our sailors. The constitution of the Committee was on the whole a good one, the great predominance of laymen proving not so objectionable as might have been expected. But where so complicated a subject as the nutritive value of aliments and food-stuffs in relation to health and work is concerned it would have been strengthened by the presence at the council board of some scientific expert accustomed to laboratory investigations to help Deputy Inspector-General IRVINE, the one medical member of the Committee. The medical evidence, if somewhat conflicting as to the sufficiency or otherwise and the dietetic qualities of the ration, was practically unanimous in regard to its lack of variety. In Table 3 of Appendix IV. of the report the nutritive values of naval and other dietaries in respect of albuminous matters, hydrocarbons, and carbohydrates are set forth; those of the standard diet for a man undergoing laborious work, for an English railway navvy, an Australian stockman, and a prize-fighter in training are also given by way of contrast and comparison. In this way it is possible to gauge at once the reason and force of the recommendations of the Committee; and this clearness is a feature of blue-books and departmental reports the absence of which we have more than occasionally to regret.

There is some reluctance occasionally on the part of those concerned to enforce strictly their powers in dealing with contractors. We are glad to notice that the Committee lay much stress on the point that quality alone, and not price, should be the consideration which should decide the acceptance or rejection of all articles supplied for the consumption of seamen. The Committee had to deal with a very important question in imposing a limit on the quantity of fresh meat which might be "saved" while ensuring that the consumption of fresh meat should be sufficient to keep the men in good health. "The proportion of the fresh meat ration which," the Committee recommend, "may be saved should be limited to one-third at the home ports, as in the Channel squadron, and on foreign stations." It is also suggested that fresh mutton instead of fresh beef should be issued as a change when desired. While some reductions in the present ration are recommended a number of additions are proposed by the Committee which will have the effect of making it a more varied and desirable dietary. Pages 39 to 42 of the Report are taken up with a complete summary of the recommendations of the Committee on the subjects referred to them for consideration, and may be read by those who have not leisure to read the whole Report. But the interesting subject of the victualling of our fleet is treated by the Committee in so readable a fashion that we believe most medical men will not be content with the summary.

### A Material Age.

FOR all who love ceremony this is a sad age. The hurry of modern life leaves no time for all those stately courtesies and dignified rituals that adorned the "spacious days" of our forefathers. In our own profession at this time of the year the decay of all such decorative proceedings is

particularly impressed upon our minds by the fading custom of introductory addresses at the medical schools. Even these ceremonials, of no great antiquity and originally of obvious worth and purport, are gradually being condemned as too ponderous for the spirit of the age. The student, though only at the beginning of his career, must not be asked to sit still for an hour while a wise man discourses in a general fashion upon the profession in which he is distinguished and in which his hearers hope to become so. Introductory addresses are being pushed out of the lecture theatre of the medical schools as classics are out of the class-rooms of the public schools. As a result of the wide competition and the ever-growing accumulations of knowledge in every profession—nay, in every branch of every profession—there is no time or place to-day for the superfluous. We are all perforce utilitarians and can only spare attention for that which directly furthers our particular aims.

At a recent famous trial for bigamy nobody paused to admire the historic house, the quaint ceremony, or the splendid apparel associated with the proceedings; but everybody was busy deploring the time that these old usages demanded and the expense involved in what might have been a much quicker and cheaper administration of justice. Time and money, how to save the one and to make the other,—these are the ruling questions of modern life. The average man is in a fair way to forget that there are other things worth considering; and only the very wise or the very wealthy care to be lavish of time and to forfeit money in the pursuit of learning, peaceful and unremunerative, undertaken simply for its own sake and the sake of sound knowledge to be acquired. Nowadays everything must move fast and must have a direct purpose. The altered manner is apparent in all the affairs of life. Starting with one old custom which used to mark what is often the first important epoch in a man's life—the wedding-breakfast—we can see a general disappearance of all grave and stately, if perhaps tedious, formalities. Weddings to-day are unaccompanied by breakfasts. It is more to the point to encourage some proceeding by which more friends can be accommodated at a less cost of time and of money. To consider the relative comfort of your guests is no part of the modern programme, so a couple of hundred guests and relatives are crowded for a few hot, jostling, champagne-sipping moments into a room where a quarter as many of their grandparents would have solidly enjoyed themselves for a couple of hours. Conversation as a formal proceeding we have long dispensed with, and the rapid inanities of the fleeting "at home" replace the solemn speeches, the weighty toasts, and the cheerful dialogue of the wedding-breakfast.

There is no department of affairs perhaps in which this general change of manner is more apparent than in the personal conduct of medical matters. The very idea of a "doctor" in earlier days conjured up the notions of deliberation, gravity, and a solemn and formal procedure. To-day we picture him rather as a brisk man, of keen eye and few words. We have no hesitation in declaring our practical modern methods to be as much to the patient's advantage as they are to that of the medical man, but the contrast is none the less marked. Then, he would begin

his visit by formal, possibly learned, conversation, and terminate it with rounded periods of hope or grave expressions of anxiety confided to the relatives; now he sees his patient on his arrival, has a few words with the nurse, and jumps on to a bicycle. He is summoned by a telegram, prescribes through the telephone, and arrives in a motor-car. The old-fashioned medical man was in nothing more precise than in the fashion of his dress. To have visited a patient in anything but his most formal costume would have shocked his own sense of propriety and would have given the patient serious misgivings as to the correct professional standing of his medical attendant. It is a part of the general change of manners that gives medical men to-day a far wider freedom in this matter. The world takes nowadays a more liberal-minded view of these minor questions. The practical convenience necessitated by modern conditions prescribes behaviour. At a time when ladies ride bicycles and smoke cigarettes and when a Royal Princess has satisfied her curiosity and spirit of adventure by travelling outside an omnibus, who will ask the medical man to restrict himself to the frock-coat of rigorous professional propriety? Opinion is more sensible and untrammelled than it used to be, and it is recognised that a man may be an active surgeon or a careful physician even if his coat has no tails to it. In the country, perhaps, professional costume was always more or less adapted to climate and to locomotion. The country doctor did not ride in the faultless attire of his town brother or drive in such "correct" apparel as the latter habitually wore. Now, however, the considerations of practical convenience are allowed full play in towns too, and, as the season demands, the short-coated suit and the straw hat are not altogether taboo. It is right, however, that a medical man should always be careful and quiet in the manner of his dress. He must not allow flashiness to play a part in his costume, and our younger readers will do well to remember that though a freedom is theirs now which was denied to their fathers, still it behoves them to see that they dress strictly as gentlemen should. Better the inconvenient staid limitations of a black frock coat than that a suit only fitted for the racecourse should be worn at the bedside. Even in such comparatively small matters as dress wider opportunities entail proportional responsibility, and the young practitioner of to-day must not forget that POLONIUS's advice in the matter of costume is as worthy to be followed now as it has been for the last 300 years.

## Annotations.

"Ne quid nimis."

### THE LONDON SCHOOL BOARD AND ITS MEDICAL OFFICER.

It is a well-known fact in psychology that crowds will, as crowds, do actions which no one of the individual members who compose them would think of doing. In the same manner the London School Board in its corporate capacity acts in a manner in which we do not for one moment believe any one of the individual members would act. The Board's latest piece of work is to dismiss its medical officer in a peculiarly ungracious way. We take the following facts

from an article which appears in the current number of the *Journal of State Medicine*, the editor having courteously favoured us with an advance proof. This journal is the official organ of the Royal Institute of Public Health, of which body Dr. Smith is also the President, so we may take it that the statements contained therein are authenticated and they are borne out by quotations from the minutes of the meetings of the School Board. The facts are these. In 1890 Dr. Smith was appointed as medical officer on probation to the Board on the understanding that he was to be debarred from private practice and that he was not to be allowed to hold any appointment which interfered with the proper performance of his duty to the Board. In May, 1890, two months after the appointment, Dr. Smith wrote to the Board intimating that if he was required to give "his whole time" in a rigid sense to the Board his position would be untenable. On this letter the Board took no adverse action. In fact, on May 15th, 1890, the Board decided that Dr. Smith might continue to hold two offices outside the School Board—namely those of medical officer of health of Woolwich and the professorship of State medicine at King's College. In 1899 the General Purposes Committee of the School Board offered to increase Dr. Smith's salary from £600 to £800 per annum on condition that he gave up the medical officership of health of Woolwich. In view of the impending changes to be brought about by the Act for the local government of London this proposal was suspended, and eventually the School Board offered a salary of £800 per annum on condition that all appointments were given up except the King's College professorship. Dr. Smith declined to accept this offer and the School Board then passed the following resolution:—

“That the resolution increasing the salary of the medical officer from £600 to £800 be rescinded; that Dr. Smith be called upon to resign all his paid professional appointments, with the exception of his lectureship on medical jurisprudence in King's College; and that, failing his consent to these conditions, six months' notice be given to Dr. Smith for the termination of his appointment.”

This resolution was passed by the Board on July 25th, 1901. We consider that the School Board has acted in an unfair manner. To begin with it never should have allowed Dr. Smith to hold the appointment of medical officer to itself and other appointments too, especially such an arduous one as that of medical officer of health of Woolwich. It is absolutely impossible for any man to hold satisfactorily two such appointments as that of medical officer of health of a district which had in 1899 a population of 107,324 and that of medical officer to a body responsible for about 500,000 children. In addition to his medical officership of health Dr. Smith was public analyst, and in addition to his professorship he is director of the King's College laboratories of State medicine. But the Board having winked at what must have been a dereliction of duties had no right to go back on itself. The medical officer to the London School Board should be a competent man, he should have a salary of £1000 per annum, he should be required to give his whole time to the duties of his post, and he should be responsible for signing certificates for non-attendance. He ought to keep an eye on the sanitary condition of the schools, the condition of the children, and the health of the teachers. It should also be impossible for him to be able to be dismissed by a body the composition of which changes every few years and the members of which are popularly elected. The persons in whose hands his dismissal should rest are the members of the Education Department. We do not for one moment consider that Dr. Smith should have been allowed to hold such a number of posts that he could not possibly carry out the duties entailed thereby, neither do we think it fitting that panegyrics upon himself as a public servant should

appear in the journal of the Committee of which he is a member—e.g., “We venture to assure Dr. Smith of our sympathy with him and our respect for the dignified position he has taken”—but none the less the Board has acted in a mean, reprehensible manner.

#### DEATH OF A CENTENARIAN.

MRS. ELIZABETH HANBURY, of Richmond, Surrey, died on Oct. 31st, aged 108 years and four months. She was the youngest child of Mr. John Sanderson, who had a warehouse in St. Mary Axe, and she was born in Castle-street, in the parish of St. Alphege, London-wall, on June 9th, 1793. In 1826 she married Mr. Cornelius Hanbury and thenceforth lived for a long time at Stoke Newington in North London. Mrs. Hanbury was a member of the Society of Friends, spoke at the meetings, and was an acknowledged minister. Among the numerous philanthropic and charitable movements which occupied much of her time and energy the visiting of prisoners in Newgate (in conjunction with Mrs. Fry), the visiting of convict-ships, especially those for females, and the work of the Anti-Slavery Society held the foremost place. She was able to read and to write even when over 100 and to go from one room to another of her house when over 107. Mrs. Hanbury has left a son, Mr. Cornelius Hanbury, chairman of the firm of Allen and Hanburys, Limited, an old-established City firm of pharmaceutical chemists. A notice of Mrs. Hanbury, together with a portrait taken on her hundredth birthday, are contained in a recently published autobiography of her daughter, the late Charlotte Hanbury, edited by Mrs. Reid. The funeral took place on Nov. 5th in the Friends' burial ground at Wellington, Somerset.

#### THE PRINCE OF WALES'S HOSPITAL FUND FOR LONDON.

THERE is no need here to remind our readers of how much this Fund has done and is doing for the sick poor of London; but, as in every other organisation for helping others, money is required. It was the hope of the Royal Founder of the Fund—now His Majesty the King—that the resources of the London hospitals should be increased by £100,000 a year. Although this hope has not been realised, yet it is hoped that £50,000 a year has been found, and thus another £50,000 a year remains to be gathered in by some means. The organising committee of the fund, through their chairman, Viscount Duncannon, have suggested that the freeing of the hospitals from debt would be a most acceptable coronation gift to the King and have issued an appeal to this effect. The appeal is being sent to the press, to factories, and to offices. We have every satisfaction in endorsing the appeal, for the London hospitals are kept going by purely voluntary gifts whether in land or in money, while the senior members of the staff either give their services for nothing or else for a few pounds per annum which are paid to them more for administrative reasons than for any other. Of our two oldest hospitals that of St. Bartholomew was founded by an ordinary citizen attached to the Court and afterwards was supported and served by the Augustinian Brothers of the Priory of St. Bartholomew, while St. Thomas's Hospital arose from the Priory of St. Mary Overy, served by brothers of the same order. Guy's Hospital was originally the creation of one man, and thus our endowed hospitals owe nothing to the State or to municipal rates for their funds. Our hospital system is the people's own; it is kept up by private donations and subscriptions; it reflects both the high regard the country has for the sacredness of human life and the sympathy the people feel for its care. In such a city as this, where life teems in restricted areas and throbs in complicated activities, dangers are always threatening the healthy,

and the terrible wear and tear, the stress and turmoil of competition, make deep inroads on the public health. It must be counted to the city's good that the awful fact of suffering is *voluntarily* met by the best surgical and medical knowledge and by nursing accommodation which men, women, and children may promptly claim. To those who take their corporate responsibility seriously these are grateful facts. £50,000 a year: it is at once a large and a small sum. It is about the income of the weekly cost of the war and about one-fortieth part of the sum compulsorily paid in rates to the School Board. But it is not much for London to find, and yet should London be asked to find it all? A great proportion of the patients at a London hospital come from the country; many of them are genuine cases of illness and some are not. We remember one patient who made fortnightly trips to a London hospital from Peterborough for a pint of cod-liver oil. But a London hospital is really a national institution and we think that the appeal might be made to a wider area than that of the metropolis alone. To intending donors we would point out that the fund is admirably administered and that a very small portion of the money subscribed goes in expenses or salaries.

#### THE PRESERVATION OF DEAD BODIES BY FORMIC ALDEHYDE.

THE preservation of dead bodies by some method which will not affect the colour or the pliability of the tissues is a thing much to be desired in the interests both of teachers and students of anatomy as well as of forensic medicine. Such a method has, we think, been found in the vapour of formic aldehyde, and an ingenious apparatus for its application has been devised by Dr. G. de Rechter, a member of the Sanitary Board of the city of Brussels, and his brother, M. F. de Rechter, who is an engineer. The apparatus, which we have had the pleasure of inspecting at the Examination Hall on the Thames Embankment, consists of two compartments, one the disinfecting chamber, and the other which is divided into two for the production of formic aldehyde vapour in the one and of ammonia vapour in the other. The use of this last is to neutralise the formic aldehyde if required. Above each one of the compartments, which are really containers for evaporation over a large surface, is fixed on the outside a sprinkling-receiver containing liquid corresponding for the one part with formalin and for the other with ammonia. These sprinkling-receivers are made in imitation of ordinary oiling apparatus with a visible drop such as those employed in the lubrication of engines. They are airtight and are provided with an air-tube plunging into the liquid in such a manner as to work at a constant level, and, by means of a screw, the requisite number of drops to be given out per hour can be regulated. From the receiver the sterilising or neutralising liquid falls into a collector, which distributes the liquid uniformly on a number of wicks of plaited cotton, hung vertically so as to spread the substance over the largest possible surface, and with a view of ensuring complete draining. In order to produce the circulation of the air throughout the whole apparatus and to ensure progressive saturation in the sterilising chamber a small electric fan should be placed in the passage conveying the vapours. It goes without saying that during the period of disinfection the air circulates exclusively in the disinfecting and formic aldehyde chambers. The ammonia is only used on the withdrawal of the body or other matter which is being treated. On Nov. 4th we "assisted" in the French sense at a post-mortem examination on the body of a man which had been in the chamber since Oct. 12th. The body had not been touched in any way before being placed in the chamber. The limbs and skin were soft and

pliable except on the face, scalp, and the fingers and toes, where the skin was leathery. The brain was somewhat soft but had no disagreeable smell. The intestines, however, and the abdominal muscles showed slight signs of putrefaction, although the smell was slight; the liver, though soft, was of a perfectly normal colour. It must be remembered, however, that this body had been treated by one unaccustomed to the apparatus and had not been kept at a temperature of 12° C. for the first week or so as recommended by MM. de Rechter. The process will be found, we should say, to be of great value both for anatomical and medico-legal purposes, and with regard to the latter point we may mention that experiments have been made with the bodies of animals which had been poisoned by morphine, atropine, strychnine, and arsenic. In no one of these did the formalin in any way prevent the detection of the poisons, but we think that it would be of interest to try an experiment on an animal poisoned with cyanide of potassium or phosphorus. One other use of the apparatus would be in keeping condemned meat for a magistrate's inspection. If put into the apparatus on seizure the meat would undergo no further change. We may add that the agents for the apparatus in Great Britain are Messrs. Thomas Christy and Co., 4, Old Swan-lane, London, E.C.

#### THE REMOVAL OF PATIENTS SUFFERING FROM ENTERIC FEVER.

AT the Kettering Police-court on Oct. 16th Mr. William Mackenzie, the medical officer of health of Raunds, was summoned for a breach of the Public Health Act by aiding and abetting one Frederick Allen unlawfully to expose himself whilst suffering from enteric fever at Kettering. The evidence given was rather conflicting in some respects. It appeared that Mr. Mackenzie was called in to see a man named Allen—one of his club patients. When Mr. Mackenzie arrived at the house he found Allen up and dressed, but as his temperature was 100·2° F. and his symptoms suggested enteric fever, and as there had been several cases in the neighbourhood, he came to the conclusion that the patient was suffering from that disease. Mr. Mackenzie asked if there was a hospital for infectious diseases in the neighbourhood and was assured that the patient would be admitted; he consequently said that if the patient could be taken into the hospital "it would be a good thing." It was in this respect that the evidence varied, the witnesses for the prosecution stating that Mr. Mackenzie advised the patient to go, Mr. Mackenzie himself stating that he merely suggested such a course and said that if the patient did go it was to be "on his own responsibility." Allen consequently went in a cab to the hospital but was refused admission as he did not belong to the district. The prosecution maintained that Mr. Mackenzie ought to have made further inquiries before giving his consent to the patient's removal and that by using a cab Allen had made himself a source of public danger. When Allen returned home Mr. Pretty saw him and five days afterwards he was removed to the hospital. For some reason Mr. Pretty was not called as a witness. We consider that he should have been, for whether the removal of a patient in a cab was a source of public danger largely depended upon the stage of the disease. From Mr. Mackenzie's evidence the patient was apparently in the very early days of enteric fever, probably not later than the third, and as it has been shown that the pathogenic bacilli do not appear in the stools until the ninth day, and as infection by the breath is of the very rarest occurrence, we cannot consider that there was any danger of infection to the public by Allen's removal in the cab, but Mr. Mackenzie took the further precaution of

having the cab disinfected and could not therefore, according to the evidence given, be said to be guilty of the charge for which he was summoned. After consideration the bench dismissed the case against Allen, but considered that "Dr Mackenzie acted very injudiciously in sending the man to Kettering without first communicating with the medical officer there." But on the evidence they did not feel justified in convicting. We think this is rather hard on Mr. Mackenzie. He was certainly acquitted of the breach of the Public Health Act, and the evidence with regard to the reasons why the man went to the hospital for infectious diseases was, as we have already said, most conflicting.

#### THE LAY TREATMENT OF ALCOHOLISM.

A CORRESPONDENT has sent us a little four-page leaflet, dated from "The Lodge, Carnoustie, N.B." We learn from this that "Mr. and Mrs. William Mathie who have had large experience in the treatment of alcoholism have opened the above home, where special attention will be given to those suffering from such a condition. .... The duration of treatment is three weeks, not less, and no restriction as to stimulants is put upon the patient on entering, for as the medicine takes effect the desire for stimulants progressively lessens. The medicine acts directly on the nervous system. ...." An extract from the *Dundee Evening Telegraph* of May 27th, 1901, is given by which we learn that "it is indeed worthy of note that some medical experts have recommended the sending of anæmic young women to the matron for treatment similar to that meted out to other visitors." This statement may mean a great deal more than meets the eye, and we do not believe that any medical expert would send a simple case of anæmia to be treated by a secret remedy. We must confess that we should like to know more about Mr. and Mrs. Mathie and their manager, Mr. Donald F. Cameron.

#### THE PHYSIOLOGICAL EFFECTS OF COCAINISATION OF THE SPINAL CORD.

Professor A. Pitres and Dr. Jean Abadie of Bordeaux have published in the *Archives de Neurologie* for October a valuable paper based on an extensive series of experiments and observations made by them to determine the physiological and clinical effects of cocaineisation of the spinal cord by the method of lumbar puncture. 50 cases were thus studied, the cocaine injection used being a 2 per cent. sterile solution. The following are the chief conclusions reached : 1. The analgesia which follows spinal cocaineisation is due to the action of the cocaine not on the spinal cord, but on its posterior roots the conductivity of which is diminished. The analgesic action is, however, somewhat irregular, hence sometimes the anaesthesia begins in the perineo-scrotal region, sometimes in the thighs or feet—i.e., in detached patches which gradually extend and coalesce. The same fact has been observed by M. Tuffier and M. Hallion. 2. The analgesia is thus progressive and after the operation the restoration of sensibility to pain is similarly not uniform. 3. Cutaneous sensibility to pain (pinching or pricking) is the first to disappear, and later the sensibility to heat or cold. Touch may be erroneously localised at this stage (allocheiria). The sense of contact and pressure on the skin is the last to disappear. 4. The touch of clothing, the hand, or metal on the legs or body may be perceived for a long time, and ether falling on the skin and evaporating gives rise to a sensation of warmth, whereas chloroform similarly applied to the skin gives rise to no sensation. 5. Tickling of the soles of the feet is long perceived by the subject but the usual reflex is not provoked. 6. Cutaneous sensibility to touch is the first to reappear, next the sensibility to pressure, next the thermal

sense, and lastly, the sensibility to tickling and to pain. 7. In four patients the electric sensibility of the skin (noted before the experiment) was abolished after the injection. 8. Deep sensibility of the muscles, bones, and joints is abolished in proportion to the degree of cutaneous analgesia, and when the latter is complete so is the former. 9. Consciousness of position of the limb is generally preserved during the analgesia, the only exception in the 50 cases being a patient who was tabetic. 10. Deep visceral sensibility (testicular and peritoneal) is never totally abolished, though it may be considerably diminished. 11. The knee-jerks and the tendo Achillis reflexes are always modified by the lumbar injection. In normal subjects they are at first exaggerated and then diminished until the normal degree of reaction is re-attained. 12. Sphincter troubles in the form of paralysis of the bladder or rectum are never produced with the moderate doses of cocaine employed. In a considerable minority of cases erections of the penis were noticed to occur. 13. Vaso-constriction occurs in the analgesic areas and the skin becomes pale and comparatively bloodless, scarcely bleeding when pricked. 14. The skin of the lower limbs and lower part of the trunk remains cold and dry, while the face, upper limbs, and upper part of the body sweat freely after the injection. Professor Pitres and Dr. Abadie further state that after simple lumbar puncture they had never observed epileptoid tremblings, contractures, or fibrillary tremors of the muscles, and that nausea and vomiting were rare sequelæ, but that headache was common and was probably due to the toxic effect of the cocaine.

#### THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Cape of Good Hope received at the Colonial Office on Oct. 30th states that for the week ending Oct. 26th the cases of plague in the Cape Peninsula numbered 2, both Europeans. The cases at Port Elizabeth numbered 4—namely, 1 Malay and 3 natives. For all other places the cases numbered 0. The deaths from plague were as follows: Cape Peninsula, 1, a European; Port Elizabeth, 1, a European; all other places, 0. The area of infection remains unchanged. The cases of plague among persons under naval and military control numbered 2—namely, a private of the 3rd Lancaster Regiment, Greenpoint Camp, and a private of the 3rd Battalion of the Buffs, Simonstown. As regards the Mauritius a telegram from the Governor received at the Colonial Office on Nov. 4th states that for the week ending Oct. 31st there were 77 cases of plague and 47 deaths.

#### THE EAST SUSSEX MEDICO-CHIRURGICAL SOCIETY.

THIS society celebrated the jubilee of its existence by a dinner held on Oct. 31st at the Eversfield Hotel, St. Leonards-on-Sea. The President (Dr. J. W. Batterham) took the chair and a large number of members and guests were present. Among the latter were the President of the Royal College of Surgeons of England (Mr. H. G. Howse), Mr. W. Allingham, Mr. Howard Marsh, Mr. Edmund Owen, Colonel Brookfield (M.P. for the Rye Division of Sussex), the Mayor of Hastings, and Canon H. B. Foyster. After the usual loyal and patriotic toasts Mr. Howse gave the toast of "The Society and its President." He drew attention to the fact that their society was one of the oldest medical societies in the kingdom and complimented them upon the excellence of their rules and regulations, more especially with regard to those which dealt with ethical relations. Dr. Batterham, in reply, said that their society was founded by Dr. Greenhill and a few others in 1851. There were at first 11 members, now there were 50. Their original library consisted of 57 books, now they had one of between 2000 and

3000 volumes. They had tried, and he thought that he might claim with success, to keep themselves abreast of the ever-increasing flood of medical knowledge. As to the success of their efforts in regard to professional good fellowship he had only to point to the understanding existing between the various medical men in the town. Dr. B. H. Allen proposed "Kindred Societies" to which Mr. Edmund Owen responded, and the last toast was that of "The Secretary" proposed by the President and acknowledged in suitable terms by Mr. L. E. Jowers. The society has done good work not merely in a purely professional sense but in the more public manner of taking interest in, and advising the municipality upon, questions of sanitation and hygiene. Therefore, we congratulate it upon its past record and cordially wish for it many more years of useful life.

#### SMALL-POX IN LONDON.

THE returns of small-pox up to Wednesday in this week are better than during last week. On Sunday, Nov. 3rd, there were seven fresh cases admitted to the hospitals of the Metropolitan Asylums Board; on Monday, Nov. 4th, there were 15 fresh cases; on Tuesday, Nov. 5th, there were 12 fresh cases; and on Wednesday, Nov. 6th, there were 4 fresh cases.

#### THE PROTECTION OF NURSE-CHILDREN.

IT is highly satisfactory to know that it is intended to bring under the consideration of Parliament next session a Bill for the better protection of nurse-children. The present Act certainly stands in need of amendment and more especially in respect of the very clauses by which it was made to amend an originally stronger measure. It is generally known that the provisions of the Act for registration and supervision apply only to cases in which more than one child is boarded out and, moreover, to cases in which a sum of less than £20 is paid for each child. For what purpose these conditions were introduced we do not profess to understand. Their practical effect has been to impair in no small degree and for no obvious reason the usefulness of the Act. They serve as gaps in the net through which offenders may freely escape, if only they are sufficiently cunning. The payment of a less or greater sum of money can clearly provide no guarantee for proper treatment if the child should come to be committed to the hands of unscrupulous persons. Neither should the fact of a greater payment entitle the parent or guardian of such a child to dispense with the necessity for registration. This, after all, is the only legal safeguard provided to cover transactions of the kind. Why should the child born in a better condition of life be denied this privilege? Why should exemption be sought for it? There can be no sufficient reason nor can we see any justification for such a course. On the contrary, we recognise an obvious loophole for the evasion of that purpose of justice for which the Act was framed if there is present a desire to evade it. In a recent case of baby-farming at Balham which was investigated under a charge of neglect two infant children were found to have been shamefully neglected and starved, death resulting in the case of the younger. A sum of £40 had been paid down for one of these children and £30 for the other. Obviously the payment of money afforded here no security for the most elementary practice of humanity. No less does the existing law require modification in the interest of single nurse-children. Except for the necessity of obtaining a certificate in the event of death and a medical man to give it such a child is practically without resource unless it be found perchance in a nurse with a conscience. Experience has abundantly proved that such resource has to be well sought for among the women who "nurse" these poor children. We have all along urged the necessity for

registration even in the case of a single child and we would respectfully but most strongly urge upon the Government the necessity of treating the whole subject in a thorough and decisive manner. We feel convinced that no Bill can be expected to secure the proper treatment of such nurse-children which does not provide fully and without reservation for their registration and supervision.

#### TEMPERANCE ADVOCACY IN GERMANY.

THE annual conference of the German "Society for Combating the Abuse of Spirituous Liquors" was opened with a meeting in the great hall of the University of Breslau on Oct. 30th. Baron von Diergardt said that Germany suffered heavily from the incubus of alcohol. Three milliards of marks (£150,000,000) were spent annually in Germany on intoxicants, as compared with 12 milliards spent on food. On an average every member of the population—men, women, and children—consumed in a year 10 litres (2·2 gallons) of pure alcohol, an amount equivalent to 30 litres (6·6 gallons) of spirits. One principal difficulty with which temperance reformers had to contend was the fact that they everywhere encountered persons who were interested in the sale of alcohol. The State itself had a financial interest in this traffic, collecting as it did a revenue of 165,000,000 marks (£8,250,000) from spirits and 100,000,000 marks (£5,000,000) from beer. One-third of the German exports to Togoland and one-seventh of the German exports to East Africa consisted of alcohol. An appeal signed by 42 of the Breslau University professors and teachers has been addressed to the students reminding them of the dangers of over-indulgence in intoxicants and urging them to make a stand against the drinking customs which prevail in universities, especially against competitive feats in beer-drinking and the custom of "Frühschoppen," or morning libations of the same beverage.

#### PRIMARY TUBERCULOSIS OF THE SPLEEN.

IN the *American Journal of the Medical Sciences* for September Dr. D. D. Stewart points out that tuberculosis—acute or chronic—may manifest itself as a splenic lesion for a greater or less period without signs of the disease in any other organ being manifest. He relates the following case. The patient was a single woman, a nurse, aged 29 years, with a good family history. While recovering from influenza she nursed a man suffering from tuberculosis. She ate irregularly and lost sleep. She became ill and had pyrexia and aching in the back. She had a chill every day, the temperature ranged between 101° and 103° F., and she was thought to be suffering from typhoid fever. On April 18th, the tenth day, she was admitted to hospital. The spleen was markedly enlarged, reaching as high as the sixth intercostal space and being palpable below the ribs. The tongue was clean. Daily examinations of the lungs were negative. The temperature showed morning exacerbations and evening remissions and ranged daily from about 101° to 104°. Repeated examinations of the blood showed the absence of Widal's reaction and of malarial plasmodia. On May 14th two small glands were felt in the left supra-clavicular fossa. Ophthalmoscopic examination showed some congestion of the retina. Towards the end of May fine râles were now and then heard in the lungs. In June vomiting occurred daily; she had headache by day and delirium by night. Frequent twitchings of the upper limbs occurred and were accompanied by a harsh cephalic cry. The *tache cérébrale* was well marked. She died comatose on June 15th. The necropsy showed some miliary tubercles in the brain, lungs, liver, and kidneys. The spleen was four times its normal size and studded on its peritoneal coat with elevated yellow tubercles of the size of a large pea. On section the whole organ was found to be a mass of tubercles varying in size from a pin-point to four

millimetres in diameter. About one-half of the spleen had been converted into a caseating mass. The advanced tuberculosis of the spleen, as compared with other organs, causes Dr. Stewart to regard the case as one of primary tuberculosis of the spleen. Scharold has recorded the case of a convict apparently in good health and employed in out-door work who was suddenly seized with symptoms of an acute general infection.<sup>1</sup> There were high fever, headache, cough, epistaxis, diarrhoea, delirium, and general cyanosis. The spleen was greatly enlarged. Death occurred on the seventeenth day. The necropsy showed miliary tuberculosis limited to the spleen. Cases of presumed chronic primary tuberculosis of the spleen have more commonly been observed than acute cases such as those just described.

#### ST. THOMAS'S HOSPITAL: CONSECRATION OF THE CHESELDEN LODGE OF FREEMASONS.

THE consecration of the Cheselden Lodge, No. 2870, took place in the Governors' Hall of St. Thomas's Hospital on Monday, Nov. 4th. The Most Worshipful Grand Master the Duke of Connaught and Strathearn, K.G., who is the President of St. Thomas's Hospital, had signified his intention of being present at the ceremony of consecration and of performing a most important part of the ceremony himself. Most unfortunately, however, for the founders of the lodge and their guests a dense fog prevailed, which rendered it impossible for the Duke of Connaught to reach the place of meeting and a message by telephone was received to say that he could not come. In his regrettable but unavoidable absence the ceremony of consecration was most impressively carried out by V. W. Bro. E. Letchworth, F.S.A., Grand Secretary, assisted by the following Grand Officers: W. Bro. Clement Godson, M.D., P.G.D. (as S.W.); W. Bro. Alfred Cooper, F.R.C.S., P.G.D. (as J.W.); V.W. Bro. Sir Borradaile Savory, Bart., Grand Chaplain; V.W. Bro. W. C. R. Bedford, Grand Chaplain; V.W. Bro. Frank Richardson, P.Dep.G. Registrar (as acting D.C.), assisted by W. Bro. Fitzroy Tower; W. Bro. Woodhouse Braine, F.R.C.S., S.G.D. (as I.G.); and W. Bro. W. Walmsley-Little, Mus. Doc. G.O. There was a very large and distinguished gathering, both of Grand Officers and of well-known members of the medical profession and others interested in hospitals in general and St. Thomas's Hospital in particular, including R.W. Bro. the Lord Mayor, P.G.W.; R.W. Bro. the Earl of Templetown, Grand Senior Warden; R.W. Bro. F. S. W. Cornwallis, Grand Junior Warden; R.W. Bro. G. Richards, D.M.G. Transvaal; R. W. Bro. Colonel John Davis, Provincial Grand Master of Surrey; and W. Bro. Sir W. Mac Cormac. Doubtless the fog was responsible for keeping many others away, but despite the weather the attendance was very large. The officers of the Lodge are as follows: W. Bro. Thomas Wakley, Jun., L.R.C.P. Lond., P.P.G.D., Surrey, Worshipful Master; V.W. Bro. Alderman W. Vaughan Morgan, P.G. Treas., I.P.M.; Bro. H. H. Clutton, F.R.C.S., Senior Warden; W. Bro. G. Crawford Thomson, M.D., Junior Warden; Bro. Sydney Phillips (Steward of St. Thomas's Hospital), Treasurer; Bro. Charles R. Box, M.D., F.R.C.S., Secretary; Bro. W. S. Colman, M.D., F.R.C.P., S.D.; Bro. T. G. Nicholson, M.D., J.D.; W. Bro. Samuel Hague, M.D., P.P.G.D.C., Middlesex, D.C.; W. Bro. L. A. Bidwell, F.R.C.S., I.G.; W. Bro. H. J. Pringley, M.R.C.S., L.R.C.P. Lond. and W. Bro. W. H. Lawrence Copeland, M.D., Stewards. At the conclusion of the ceremony the brethren made their way as speedily as the fog permitted to the Trocadéro Restaurant, where the banquet was held, the number of members and their guests amounting to about 120. V.W. Bro. the Grand Secretary, in responding to the toast

of "The Consecrating Officers," mentioned that he had that morning seen the M.W. Grand Master who had said that he was looking forward with pleasure to the meeting that evening; and it was most unfortunate that the density of the fog had rendered it impossible for His Royal Highness to reach St. Thomas's Hospital in order to carry out his intention of being present. The Worshipful Master, in replying to the toast of his health, which was proposed by V.W. Bro. Vaughan Morgan, gave a few particulars concerning the name of the Lodge. The Hospital Lodges which preceded it had, he said, followed no uniform plan with respect to their names. Some—St. Mary's practically and classically, and Middlesex and London absolutely and in the vernacular—had very naturally adopted the actual names of the hospitals. They had been precluded from following such a course, for they had found that there was already a St. Thomas's Lodge in existence—a St. Thomas's Lodge, moreover, which was very closely connected with St. Thomas's Hospital. This Lodge held its meetings at Tibshelf in Derbyshire, on an estate (in a colliery district) which was one of the hospital's most valuable properties, the hospital authorities being Lords of the Manor, and the greater part of their possessions there having been derived under a Charter of Edward VI., and having belonged to the ancient hospital of the Savoy. St. Bartholomew's, the pioneers of modern Hospital Lodges, had taken the name of their great founder Rahere, and Charing Cross had taken the very appropriate and pleasing name of "Chère Reine" in double allusion to Queen Eleanor, one of whose crosses was erected at the village of Charing, and to our late beloved Queen Victoria, who was their patroness. The Founders of the Lodge, which had been that day consecrated, had called their Lodge after the name of an illustrious anatomist and surgeon, William Cheselden, the introducer of the operation of lateral lithotomy, who was a member of the medical staff of St. Thomas's Hospital from 1718 to 1738. He (the speaker) had been endeavouring to discover whether Cheselden was a Freemason, but was unable to arrive at any definite conclusion. He had, however, in the course of his inquiries, had his attention directed to a trustworthy record of Sir Robert Clayton (who was President of the hospital in 1691) having summoned a Lodge of his Brother Masters to meet at St. Thomas's Hospital in 1693 to advise the Governors as to the best design for rebuilding the hospital, and of a Lodge in connexion with the hospital having continued long afterwards. So they had done no new thing that day in holding a Masonic Lodge in St. Thomas's Hospital. They had but renewed an association after the lapse of 200 years. Although Cheselden perhaps had not been associated with Freemasonry in the past he hoped that they would be able to win for the Cheselden Lodge—and so for his name—a reputation as honourable in Freemasonry as he won for himself in surgery and anatomy. The Worshipful Master in proposing the toast of "The Officers" took the opportunity, having previously referred to the great assistance that had been so willingly given by the Immediate Past Mast. V.W. Bro. Vaughan Morgan, of calling attention to the invaluable services that had been rendered in the Foundation of the Lodge by Bro. Clutton, Bro. Crawford Thomson, Bro. Sydney Phillips, Bro. C. R. Box, Bro. Colman, and Bro. Nicholson, the work of the Secretary being particularly arduous and responsible, though all had lent themselves devotedly to the work. An excellent programme of music under the superintendence of the Grand Organist, W. Bro. W. Walmsley-Little, enhanced greatly the pleasure of the evening, the only regret being that owing to the length of the proceedings and the delays due to the fog some of the items had unavoidably to be omitted. It should be added that H.R.H. the Duke of Connaught was graciously pleased to honour the Cheselden Lodge by becoming its first honorary member.

<sup>1</sup> Aerztliches Intelligenz-Blatt, August 7th, 1883.

## THE REPORT OF THE DEPARTMENTAL COMMITTEE ON FOOD PRESERVATIVES.

So far as we can ascertain this report has not yet been made public, although it is said that it was placed upon the table of the House of Commons some time ago. Yet we doubt whether any subject in home affairs presses more urgently for definite legislative action than that relating to the use of preservatives and colouring matters in food. Mr. Chaplin, in the House of Commons on July 28th, 1900, held out the hope, pending further experiments by the committee, that their report would be presented by the end of the year (1900). The committee were appointed in July of the previous year, over two years ago, and we have consistently reported their proceedings in our columns since that time. The last notice we published of these proceedings was in THE LANCET of Oct. 6th, 1900 (p. 1024), when we were able to state that the committee before pledging themselves to a definite conclusion were anxious to collect information abroad as to the use of antiseptics in food and their control, and that for this purpose some of the members of the committee had visited Denmark and Ireland. There has, therefore, been a clear year from that date to the present during which a report might have been published. The result of this unnecessary and vexatious delay—for we can see no reason for it—has been to interfere seriously with the efficient administration of the Acts which provide for the supply of pure and unadulterated food. These questions magistrates and counsel alike have maintained cannot be decided until the decision of the experts appointed by the Government is known. We are still without this report, and accounts of impotent proceedings to stop the use of preservatives in food still appear from time to time in the daily papers. This is a most unsatisfactory position alike to the trader and to the public. Those, however, whom legislation on this subject most intimately concerns will perhaps have noticed a significant incident in the proceedings of a case reported recently. It appears that one of the members of the Departmental Committee appointed to inquire into the use of preservatives and colouring matters in food was ready to be called for the defence in a case in respect of the use of boric acid in butter. Now, unless there proves to be a dissentient opinion or a minority report in the recommendations of the committee it is pretty evident from this that under some conditions at any rate the use of preservatives, or certain of them, is to be countenanced. We trust that the report, if it has been placed upon the table, will be published without further, and as it seems to us quite unnecessary, delay.

## THE FIRST SUSPECTED CASE OF PLAGUE IN LIVERPOOL.

We have received the following report of the first suspected case of plague in Liverpool from Dr. William Alexander, surgeon to the Liverpool Workhouse Hospital. A youth was admitted to the medical wards of the workhouse hospital with high temperature in the early part of October. It was subsequently discovered that he had strained himself in playing football. On examining the groin a number of enlarged glands were found. The traumatic nature of the disease was accepted; and as the temperature rose to a very high degree and the glands became still more swollen he was transferred to the surgical wards, where Dr. Alexander cut down upon the swelling and removed four or five enlarged glands. He was struck by the amount of œdema around the glands, also by the absence of suppuration and by the dark grey surface exposed when the glands were cut. The bacteriologist (Dr. A. S. Griffith), who was present at the operation, was requested by Dr. Alexander to examine the glands in order to ascertain what microbes were the cause of the disease, Dr. Alexander remarking

at the time in a jocular manner that it might be a case of plague. Dr. Griffith made the requisite investigation and found the pathogenic organisms, and there is very little doubt that the case was one of plague. The patient died 24 hours afterwards and Dr. H. Peet, one of the house surgeons, who made the post-mortem examination, reported that he only found the results produced by high temperature without any other serious lesion. No source of infection could be found to account for the disease, and although a great many people were exposed to contact with the patient whilst in the hospital no other case has since arisen. This case shows how insidious a disease plague is and how difficult it is to guard against early cases when there is no suspicion that the disease is in the neighbourhood.

## THE INCORPORATED SOCIETY OF TRAINED MASSEUSES.

MASSAGE when practised by competent persons acting under the immediate supervision of members of the medical profession plays an important part in the treatment of a variety of complaints. On the other hand, the experience of most countries has shown that several serious evils are certain to ensue when irresponsible persons are allowed to advertise themselves as prepared to apply massage to patients. Many of our readers will therefore be pleased to hear that a number of ladies have formed a society which holds periodical examinations in the theory and practice of massage, and the successful candidates, after signing a declaration that they will conform to the rules, receive the certificate of the society and their names are placed on its roll as certificate-holders. Certificate-holders over the age of 21 years are eligible for election to be members of the society. The objects of the society include the following points: (1) to improve the status and training of masseuses; (2) to provide for the holding of examinations and the granting of certificates of qualification; (3) to establish a registry; and (4) to arrange lectures, to provide a reference library, &c. All members, associates, and certificate-holders are required to abide by the following rules: (1) not to undertake any cases of massage except under the direction of a registered medical practitioner, and in regard to massage for men to act in accordance with the by-laws of the society; (2) not to advertise in any way whatever except in recognised medical papers; and (3) not to sell goods to patients in a professional capacity. The movement has received marked support from the medical profession, upwards of 70 of the members of which, including several medical ladies, have expressed their approval of the aims and principles of the society. The society neither fixes nor controls the working fees of its members. Its offices are at 12, Buckingham-street, Strand, London, W.C.

## SMALL-POX AND VACCINATION IN PHILADELPHIA.

LIKE London the city of Philadelphia is troubled with a small-pox epidemic which is scattered in all directions, though there are a greater number of cases in the north-western districts. According to the Bureau of Health there were up to the middle of October 376 cases of small-pox; 205 cases were still under treatment and there had been 48 deaths from that disease. Dr. Martin, who had been attending many patients, had himself contracted small-pox. So far this is but a small epidemic as compared with that of 1871-72 when there were no less than 15,629 cases and 4453 deaths. But since that date the acceptance of vaccination at Philadelphia has been almost unanimous. It is said that the small-pox was introduced by some negro labourers who came from the South, while others attribute the mischief to returning troops from Cuba and Manila. The fact is that at present small-pox prevails in a great

many towns both of Europe and America. During the first six months of the present year 1680 cases were reported in New York city, but good hopes are entertained of ability to cope with the evil. In 1871-72 at Philadelphia, out of 15,629 cases 13,252 were treated in their own homes. To-day practically all the patients are removed to the hospital. Then the Board of Education has issued instructions to exclude from all public schools children who cannot show good vaccination marks. President Good, of the Bureau of Health, has publicly declared that the hospitals contain only two classes of patients, those who are unvaccinated and those who were only vaccinated in their infancy and so long ago that the protection has partially or completely worn away. Not a single patient had been admitted who had been recently and successfully vaccinated. As a case in point, President Good mentioned a father, mother, and six children who were admitted to the small-pox hospital. The parents were vaccinated in infancy and as the protection had somewhat diminished they had a mild attack of varioloid. Their four youngest children were unvaccinated and they had unmodified small-pox. The two other children having reached the school-age were vaccinated before they could be admitted to the school. They were the only members of the family who did not take the small-pox, though they were freely exposed to the infection for about four weeks. A few parents are now being prosecuted for not sending their children to school, the fact being that these children had been refused admittance to the schools because they were not vaccinated. But these are isolated cases—the immense majority of the population are eagerly seeking the protection which vaccination affords, and it is estimated that within the last few weeks 150,000 persons have been vaccinated in Philadelphia. The daily average output of vaccine tubes by the Bureau of Health is 5000, and the latest advices record that the epidemic is decreasing.

THE annual dinner of the staff and present and past students of the Royal Dental Hospital of London will be held on Saturday, Nov. 23rd, at the Hotel Métropole (Whitehall Rooms) under the presidency of Mr. W. H. Woodruff. Gentlemen either now or formerly connected with the hospital or medical school who may through inadvertence not have received special notice, and who desire to be present, are requested to communicate with the Dean at the Royal Dental Hospital, 32, Leicester-square, London.

A LECTURE will be delivered by Dr. H. E. Leigh Canney, at 3 P.M. on Tuesday, Nov. 12th, at the Royal United Service Institution, Whitehall, S.W., on Typhoid, the Destroyer of Armies, and its Abolition. The lecture will be followed by a discussion in which it is hoped that the subject will be also specially considered in its bearing on transport and the responsibility of officers generally. The chair will be taken by Sir William Broadbent.

THE fact that the King, on the occasion of the visit of their Royal Highnesses the Duke and Duchess of Cornwall and York to His Majesty's dominions beyond the seas, has been pleased to approve of the honour of Knighthood being conferred by His Royal Highness upon Dr. James Graham, Member of the Legislative Assembly of the State of New South Wales, Mayor of the City of Sydney, has been gazetted.

THE annual general meeting of the Royal London Ophthalmic Hospital Guild will be held on Monday, Nov. 11th, in the board-room of Moorfields Hospital, City-road, E.C., at 3.30 P.M., Adeline, Duchess of Bedford, in the chair. After the meeting the hospital will be open for inspection by members of the Guild, and the committee

will cordially welcome the presence of any friends invited by the members.

By permission of the Duke of Westminster, a public meeting will be held at Grosvenor House, Upper Grosvenor-street, W., at 3.30 P.M., on Wednesday, November 20th, under the chairmanship of the Right Honourable the Earl of Meath, to promote the objects of the Coal Smoke Abatement Society.

THE second annual dinner of the Otological Society of the United Kingdom will be held on Monday, Dec. 2nd, at the Café Monico, Shaftesbury-avenue, at 7 for 7.30 P.M. The President, Sir William Dalby, will be in the chair.

PAPERS which should lead to an interesting discussion on the various aspects of small-pox will be read at the Hunterian Society on Wednesday next, Nov. 13th.

## THE REPORT OF THE NAVAL DIETARIES COMMISSION.

(FROM A CORRESPONDENT.)

"When sailors lived on mouldy bread and lumps of rusty pork, No Frenchman dared his nose to show between the Downs and Cork; But now that Jack gets beef and greens, and next his skin wears fannel, The Standard says we've not a ship in plight to keep the Channel."  
—G. O. TREVELYAN.

THE student of dietetics who takes in hand the recently issued bluebook (Cd 782) on "Navy Rations" cannot but compare it unfavourably with C 9166 of 1899 on "Prison Dietaries." In the first place it does not think his thoughts or talk his language; probably that is because the Committee were made up of six laymen and but one medical man, while the earlier committee had three experts and but one layman; and secondly, there is very little of scientific method about the report. The report boasts that investigations of nutritive values have been neglected, and, apparently unhelpt by science, from a mass of gossip and opinion stated the Committee have managed, with the proverbial luck—which is only another name for the sagacity—of the smart sailor, to evolve, without telling us how or why, a very good new scheme of diet which only requires a little further definition to make it an ideal diet for the navy in peace time. As to war time, it is less certain and information would be welcome from the laboratory of the Royal College of Physicians of Edinburgh or from other authority as to the composition and force value of the preserved and salt meats which are to be the food of the seaman when his day of action comes—when we want him most, and when the canteen on board is closed or empty, and only the service ration is available to feed his stomach for the fight.

The first and most obvious subject for inquiry is the meaning attached by the members of the Committee to the word "real." They twice state that "no real dissatisfaction in regard to the present navy ration exists," but they record that "a generally expressed wish of the men was that more potatoes should be supplied"; so it seems that "a generally expressed wish for change" does not appear to the Committee to be the result of "real dissatisfaction" with things as they are. "Real" here seems to mean "intense," "bordering on the mutinous." Again, biscuit is one of the articles of the ration for savings in which a man gets less money than the article costs (p. 70), yet though the savings price is against the sailors the Committee tell us (Appendix I., p. 50) that the men save 94·7 per cent. of the biscuit; they only take up and eat 5·3 per cent. of this form of food in regard to which (p. 17) it is said that "no real grounds of complaint exist." What a pity the Committee did not tell the unreal grounds of complaint if they probed deep enough to find them out from shy or suspicious witnesses. It is to be presumed that the relation of the "handy man" to navy biscuit is that of the poet to Dr. Fell:—

"The reason why I cannot tell;  
I do not like thee, Doctor Fell."

Speaking of Appendix I. two puzzles most difficult to solve may be mentioned:—1. Why were the gunnery ships (p. 48) though always in harbour supplied with biscuit only but no bread? 2. How did the men in the boys' training ships (p. 51) manage to save 121 pounds of preserved potato out of the 115 pounds allowed them? And how does 121 come to be 100 per cent. of 115? There is another curious question as to the meaning of phrases or the accuracy of printed statistics. "Preserved potato is very seldom taken up" (p. 19)—10 per cent. only (p. 51). Again on p. 17, "Soft bread is very seldom taken up." This time p. 50 shows that 44 times in 100 is counted by the Committee as "very seldom," a phrase to which they have clearly attached a private interpretation.

The position, then, as stated in the report (which is of course based on the statistics in the Appendix) and in the statistics, appears to be that the men will scarcely touch the biscuit "in regard to which no real grounds of complaint exist," but that they seem to have a considerable fancy for the bread which "is very seldom taken up." Do the Committee whose report and statistics have led to such opposite conclusions merit our blind confidence? Any man-o'-war's man will tell us that the first improvement he wants in the ration is fresh bread at sea. If not, why are ships lying in harbour abroad so anxious to send fresh bread off to the lower deck messes of a favourite or popular ship as it is seen coming in after a sea cruise? They all want bread at sea in lieu of biscuit; it may be that they cannot have it, but the report gives little evidence that the Committee have faced the question fairly. Bread is issued at sea to the French and German navies and bread has been baked at sea for the men in small craft in our own navy. Was it not Lord St. Vincent who said that anything could be done on board a ship? And now that biscuit is to be packed in tin-lined cases so that it will not deteriorate, the force of the argument of the Committee against the issue of bread at sea owing to the consequent waste of unused biscuit is greatly weakened.

No remarks are made by the Committee on refrigerating chambers in ships, though our navy profited much by them in Manila and Taku through the kindness of the American admirals. I hear that small refrigerating chambers are being built into the newer battleships.

The Committee are quite content with the salt-preserved meat supplied in the sea ration (which, be it remembered, is also the war ration), but surely salt beef, excellent as is the meat supplied to the service when killed, is a little behind the age now. Even if it were lightly corned at Deptford, and then tinned, a more satisfactory ration could be produced.

There is no reference made in the report to the food of men landed from their ships in war. Officers who have recently served in China and South Africa condemn the service ration, in the absence of associated vegetables or condiments, as intolerably unpalatable, and recommend some form of Maconochie's ration—beef and peas, &c. The Russians had a somewhat similar ration in China and were supposed to have more tasty food than our people. Sapidity is of great importance, and it is also of importance that as many of the constituents of the meal as possible should be in one tin to save trouble in the bivouac. It is a pity that no means have been discovered to make possible a daily issue of butter or cheese. Cheese is very apt to spoil and butter looks horrid in the tropics; margarine is nearly as good and is less expensive. Sailors have been known to prefer it to butter in the tropics when both were provided free. The only real want in the ration as now recommended is in the fats, and butter is served out daily in the German navy and at specified intervals in the United States navy. The two ounces of jam will make a good substitute and it is well to see the sugar increased.

The alterations of the meal hours are all improvements, but of course they are only to be legalised now, they have been established for years. The changes in meal hours and improvements in the ration may brighten the lot of patients in the naval hospitals.

There is no mistaking the gusto with which the executive officers on the Committee turned from the arid wastes of carbohydrates and hydrocarbons to the really practical question of altering the ship's routine so as to fit in the meal hours of all the reliefs quite neatly. Here they enter into a minute detail which is rather lacking in the more purely scientific part of their report. There was no engineer or marine officer on the Committee, so perhaps it is not surprising that although the "youths" from 16

to 18 years of age who enter on board the *Northampton* have a specially increased dietary, no special feeding is provided for recruit stokers who enter at 18 years of age or for marines who join at the age of 17 years. This is a great want. These youngsters are growing, and besides are probably half starved when they join—indeed, that is in many cases why they join—and the service would get much more good out of them in those very important days of their early recruit drill if they were sufficiently fed. Besides, they would be more contented, would get into less trouble, and would less frequently desert, so some would be saved ruin of character, imprisonment, and wrecked careers.

The only scientific information based on accurate recorded observation about the feeding of the seamen brought forward in the report is in Appendix IV., which tells the amount of food consumed by men at sea when they had a canteen and when they had not. When without a canteen they ate 2·3 pounds a day; with a canteen they ate more than 3·2 pounds. This suggests that there may well be "real dissatisfaction in regard to the present navy ration," which is now practically the same as it was 25 years ago when these observations were made by Inspector-General Walter Reid and when the men obviously desired a ration over one pound a day larger than that provided by the service. By the way, has the Naval Medical Department no later evidence than this to offer us?

Mention of the Naval Medical Department recalls the fact that, according to the statement of the Committee on p. 6, "in ordinary circumstances every officer or man is either victualled in kind, or if the duties he is called upon to perform necessitate his living ashore he is paid an allowance known as 'compensation in lieu of provisions.'" The treatment of naval medical officers on study leave is *extraordinary*, as they are neither victualled in kind nor are they paid "compensation in lieu of provisions."

The old harbour ration weighed very nearly three and a quarter pounds a day: this was heavier than the ration of any other man-o'-war's man and was most nearly approached by the ration of the Japanese. Foreigners are apt to assert that this great weight of food must unduly tax the digestive energies of our men. They can say nothing against the amount and quality of the work done by the men who receive all this food. The new ration will weigh four pounds. It is not laid down absolutely, variations being permitted on certain points where the further definition to which we referred at the outset is required. If good mutton be issued twice a week the amount of fat in the diet will be satisfactorily increased, and if half of the daily vegetable issue be ordered to be potatoes, or if leguminous vegetables only are allowed to be substituted on a definite scale, the carbohydrates will be always maintained at the high level required. But if the beef were always "trek ox," and if the vegetables were always tomatoes, pumpkins, and cabbage, on the other hand, the diet would fall below what is wanted. (See p. 18: "A generally expressed wish of the men was that more potatoes should be supplied.") In this direction it is to be hoped that the Admiralty will recognise the need for the further definition which we have seen to be necessary. Granting that these regulations, as we have suggested, are brought in, the new dietary will work out as below. The dietary of a convict on hard labour is inserted for comparison:—

	Seaman's diet.		Convict's diet. per day.
	Per week.	Per day.	
	Ounces.	Ounces.	Ounces.
Proteids ... ..	58·58	8·37	6·26
Carbohydrates ...	138·81	19·83	22·63
Fats ... ..	25·42	3·63	3·04
Salts ... ..	8·89	1·27	1·48

So that the new dietary proposed by the Committee works out well in consequence of their practical sagacity and in spite of their scorn for laboratory investigations.

The dietary may also be expressed in weights of nitrogen and carbon—nitrogen 26·2 grammes, and carbohydrates 305·95 grammes—and if these be compared with the diets of various English workmen, as shown by Dr. Thomas Oliver,<sup>2</sup> it will be seen that the diet now proposed for

<sup>2</sup> THE LANCET, June 29th, 1895, p. 1629.

the seaman is theoretically better than that of any English labourer or even of the Ayrshire shepherd or ploughman. This would suggest that in future, except to supply men with relishes suited to each individual, such as a red-herring for this man and a bloater for that, or for providing fresh bread, butter, and cheese, canteens should soon cease to exist. This new naval dietary is not final, but the present Committee are to be congratulated on the advance which they have promoted in the comfort of the men whose interests, as well as those of the public, were committed to their care.

### THE GENERAL MEDICAL COUNCIL: AN OUTSPOKEN VIEW.

A VALUED Irish contributor has sent us the following:—

The present time, when your columns are full of details of the keenly contested election of Direct Representatives, seems to afford a very suitable occasion to discuss the constitution of the General Medical Council.

It is composed of 31 members, 15 from England and Wales, nine from Scotland, and seven from Ireland. As a rule, in Parliamentary representation there is usually some relationship between the population and the number of members, and it must be admitted that on such a basis Ireland is at present over-represented in Parliament. Thus England and Wales, with 495 members, had at the time of the last general election about one member of Parliament to 62,700 of an estimated population; Scotland, with 72 members, had one to about 58,500; and Ireland, with 103 representatives, had one to about 44,200 of an estimated population. If we apply this ratio of representation to the General Medical Council, we find (basing our facts on the last "Medical Directory" and excluding practitioners residing abroad and the naval, military, and Indian medical services) that England and Wales have 15 representatives on the General Medical Council to 23,471 medical men residing within those countries, or one member to about 1564 practitioners; that Scotland has nine representatives to 3569 medical men, or one member to 396 practitioners; and that Ireland has seven representatives to 2575 medical men, or one to about 367 practitioners. The 16 representatives on the General Medical Council from Scotland and Ireland represent numerically 6144 medical men, that is, there is one representative to every 384 practitioners, while in England and Wales there is one member to 1564. To make matters fair, England and Wales should have at least four times as many members on the General Medical Council as she now has—or instead of 15 at least 60. It is probable, however, that to increase the numbers of the General Medical Council would do no good, nor would the present condition of its finances warrant such a course; so if proportionate representation is to have any force, and if England and Wales are to retain their 15 members, then the 16 from Scotland and Ireland should be reduced to four. The first striking peculiarity of the General Medical Council, therefore, is the disproportionate representation of the various parts of the three kingdoms.

The method by which the appointment of the members is carried out is equally anomalous. There are three ways by which a registered practitioner may become a member of the General Medical Council. Firstly, he may be elected to represent some of the corporations (universities, royal colleges, apothecaries' halls, or faculties). Those chosen in this way are the so-called "Corporate Members," and they number in England and Wales nine out of a total of 15, seven out of nine in Scotland, and five out of seven in Ireland. They are elected by the senates or governing bodies of these corporations—a constituency which does not include the graduates or diplomates of these bodies. Secondly, in addition to those Corporate Members who are elected on such a narrow and exclusive franchise, there are other representatives nominated by the King with the advice of the Privy Council. These are life appointments and the holders are practically responsible to no one. There are three Crown representatives appointed from England and one each from Scotland and Ireland, and they are termed the "Crown Nominees." Finally—and this modicum of justice was only gained after a long and keen struggle—there are five members (three from England and one each from Scotland and Ireland) elected directly by the vote of the medical profession. They sit for five years, but are eligible for re-election, and these five gentlemen are styled the "Direct Representatives."

Financially, the General Medical Council is supported by the registration fees compulsorily paid by all members of the medical profession, and yet (contrary to all ideas of modern representative government) they, who supply the sinews of war, are allowed to elect out of a board of 31 members only five to represent them. Such methods of selection of the members of the General Medical Council are totally opposed to all democratic representative principles and also to the feelings, again and again expressed, of the general practitioners of the United Kingdom.

If the mode of election of the members of the General Medical Council is peculiar so is their topographical distribution. Of the 15 members from England and Wales 10 reside in London, five in the provinces outside the metropolis, and Wales has not a single representative at all. In Scotland, of the nine members four reside in Edinburgh, two in Glasgow, one in Aberdeen, one in St. Andrews, and one in Dingwall. In Ireland every one, without exception, of the whole seven members resides in Dublin. Looked at from the point of view of local or topographical representation (the essential element in all modern representative forms of government) Scotland is most fairly treated in its members on the General Medical Council, for not only are the Corporate Members spread over the country, but the Crown Nominee comes from Glasgow, and the Direct Representative from Dingwall in the north. England and Wales have two-thirds of their members from London, but, on the other hand, Cambridge, Durham, Manchester, and Birmingham are represented, and one of the Crown Nominees comes from Leeds. In Ireland there is the most preposterous centralisation of members of the General Medical Council, for not only do the Corporate Members, but also the Crown Nominees and the Direct Representative, all come from Dublin. Thus, looked at topographically, the 414 medical men in Dublin have the whole seven representatives on the General Medical Council, while the remaining 2161 practitioners in Ireland are totally unrepresented on that body. Neither from Connaught in the west, from Munster in the south, nor from Ulster in the north, of Ireland, is there now, or has there ever been, a representative on the General Medical Council. When it is recollected that in population Belfast now exceeds Dublin and that it has the largest medical school in Ireland next to the Catholic School in Dublin, it is surely time that this city should get a representative on the General Medical Council, and that the continued attempt at centralisation in Dublin should cease. Imagine Scotland with every representative on the General Medical Council hailing from Edinburgh and in England and Wales not a member to represent any place but London! Why, one of the chief arguments employed by candidates in their electioneering proceedings, whether when standing for the General Medical Council or the Council of the Royal College of Surgeons of England, is that they do not live in London!

The General Medical Council in its constitution, in the mode of election of its members, and in its tendency to metropolitan centralisation is totally behind the times we live in, and this accounts for the fact that its influence is waning with Parliament and with the nation. It cannot in any sense be regarded as the accredited mouthpiece of the profession, and as a result statesmen pay it no attention. A body more democratically elected, on modern representative principles, must arise before the practitioners of the three kingdoms can hope to have their welfare looked after or their just rights protected.

### MEDICAL STUDENTS AND THE LONDON SCHOOLS.

(FROM A CORRESPONDENT.)

THE reduction in the entry of students in the London medical schools is attracting close attention at the present time, and it has occurred to a correspondent of THE LANCET who is interested in this question to analyse the record of registrations of medical and dental students with a view to ascertain whether any explanation of the falling-off may be found in this interesting record.

The following table shows the registrations of medical

and dental students in the divisions of the kingdom respectively for the years 1899 and 1900—the last returns available:—

	Registered students.			Total.
	England.	Scotland.	Ireland.	
1899 ... ..	1106	588	274	1968
1900 ... ..	855	578	274	1707
Decrease ...	251	10	—	261

From this return it will be seen that whilst the number of Irish students has remained stationary and those in Scotland practically so the English students have decreased by the large number of 251.

A further analysis of the preliminary examinations in arts passed by the students reveals some interesting facts, as the following table will show, viz.:—

	1899.	1900.	Increase.	Decrease.	
<b>Universities:</b>					
Oxford (responsions, &c.) ... ..	23	26	3	—	
Cambridge (previous examination, &c.) ...	120	130	10	—	
Durham ... ..	8	6	—	2	
London ... ..	215	225	10	—	
Victoria ... ..	45	49	4	—	
Wales ... ..	1	1	—	—	
Birmingham ... ..	0	4	4	—	
Scotch universities ...	292	267	—	25	
Irish universities ...	192	181	—	11	
	896	889	31	38	{ Net decrease, 7.
<b>Examining bodies:</b>					
Central Welsh Board	0	3	3	—	
Oxford Junior Local	16	15	—	1	
„ Senior ..	4	3	—	1	
Cambridge Jun. Local	47	45	—	2	
„ Senior ..	14	7	—	7	
„ Higher ..	0	0	—	—	
Oxford and Cambridge Schools examination ... ..	16	12	—	4	
College of Preceptors	557	252	—	305	
Scotch Education Department ... ..	85	78	—	7	
Preliminary Institute of Scotland ... ..	103	143	40	—	
Royal Colleges of Physicians and Surgeons in Ireland ... ..	82	93	11	—	
Intermediate Education Board of Ireland ... ..	17	18	1	—	
Apothecaries Society	3	1	—	2	
Colonial and foreign	120	142	22	—	
Exempt ... ..	13	11	—	2	
Total ... ..	1077	823	77	331	{ Net decrease, 254.
Universities ...	896	889	—	7	{ Total net decrease, 261.
Other examinations ... ..	1077	823	—	254	
	1973	1712	—	261	

From the above figures it appears that there was a slight diminution (seven) of registrations on university entrance examinations, whilst, omitting colonial and foreign students, there was the heavy reduction of 276 registrations on other examinations. Leaving out of consideration the university

senior local examinations and the Central Welsh Board, which are not taken to any extent by the professional students, we come to what may be called the “minimum” examinations, such as the Oxford and Cambridge junior locals, and schools, examinations and the College of Preceptors in England; the Scotch Education Department examination and the examinations of the Preliminary Institute of Scotland; the examination of the Royal Colleges of Physicians and Surgeons in Ireland, and the Intermediate Education Board of Ireland. When the figures of these “minimum” examinations are further analysed it appears that whilst in England there was a reduction of 312 students, in Scotland there was an increase of 33, and in Ireland an increase of 12. What, then, is the explanation of this disparity? The General Medical Council, it will be remembered, decided to eliminate on Jan. 1st, 1900, from the list of recognised examinations, the second-class examination of the College of Preceptors, an examination well known to be the popular entrance to the two professions in England apart from the universities; and whilst it is not intended to argue either that the second-class examination of the College of Preceptors is a good standard of entrance examination or that the General Medical Council are not right in steadily raising the standard of preliminary education, it is submitted that this arbitrary removal of a popular examination from the recognised list without making provision for some other examination to take its place was calculated to affect injuriously the English medical schools by suddenly checking the supply of entries. Further, the “minimum” examinations in the other divisions of the kingdom are left untouched, with the result that they show an increase in numbers, no doubt owing to some English students availing themselves of the opportunity of passing the examinations in those divisions, most nearly approximating in standard to the hitherto recognised “minimum” standard examination in England; but it is not to be expected, and certainly it is not desirable, that schoolmasters should have to send their boys to Edinburgh or Dublin to pass the preliminary examination.

It is said that the College of Preceptors many months ago expressed their willingness to modify their examinations to meet the views of the General Medical Council, and although it is believed that some negotiations have taken place, nearly two years have elapsed and this disability of English medical and dental students has not been removed. It is well-known that the first-class examination of the College of Preceptors is of a much higher standard than the Scotch or Irish “minimum” examinations, and consequently it is one which can never be a popular entrance examination for the professions. If this disparity is not to continue arrangements should either be at once completed by which the College of Preceptors’ examination is modified to meet the requirements of the General Medical Council so that its standard shall not be higher for medical and dental students nor yet lower than is required of the “minimum” standard examinations in Scotland or Ireland; or, as an alternative, that the Conjoint Board in England should revive the preliminary examinations in arts formerly conducted by the Royal College of Surgeons of England. Now that the Conjoint Board in England have ceased to require their students to be registered there does not seem to be any reason why they should not go a step further and revert to the old system of conducting their own preliminary examination in arts, not with a view to lower the standard of examination, but in order to prevent the recurrence of what certainly appears to be an ill-considered attempt to elevate that standard in one division of the kingdom only.

## THE MIDLAND MEDICAL UNION.

THE annual meeting of the Midland Medical Union was held at the Albert Hall, Nottingham, on Oct. 23rd, Mr. J. G. SHEA, J.P., the President, being in the chair. Letters expressing inability to attend were received from Dr. W. B. Ransom (Nottingham) and Dr. F. Cassidi (Derby). THE PRESIDENT, in a short address, referred to the increase in the work of the union and alluded in detail to matters which had been dealt with during the past year, speaking particularly upon the purpose and scope of the union. The Honorary Treasurer (Dr. F. R. Mutch) presented his

report which showed the funds of the union to be satisfactory.

The Honorary Secretary (Dr. E. H. Houfton of Shirebrook) presented a report of the work done during the past year, the salient features of which were as follows. The report commenced by a short *résumé* of the inception and foundation of the union, which practically commenced its career at Chesterfield on March 31st, 1900. The report of the first year's work showed that the first efforts made were (1) to try to establish a minimum fee of one guinea for midwifery cases; and (2) to establish a minimum rate for friendly societies of 5s. per member per annum for adults and juveniles. In regard to the midwifery question they might say that they had met with conspicuous success, for with the exception of a district in and about Eastwood (Notts) and a few cases involving contract midwifery the guinea fee was now universal throughout the two counties and the only reason why the particular district mentioned was exempt was that one of the practitioners whilst not attending cases for less than this fee himself allowed his assistants to do so. In regard to the contract midwifery question the Union agreed to support any member who cared to apply for the increased rate of payment for these particular cases. Dr. W. C. Rainsbury of Skegby, who held a colliery appointment to the Teveral Colliery Club, commenced to charge the increased midwifery fee and in consequence was threatened with dismissal from his appointment. A deputation waited upon the club committee to point out the reasonableness of the fee and asking them to give the matter their careful consideration. However, they sent Dr. Rainsbury an agreement to sign in which he would bind himself to charge a sum of 10s. 6d. for members' wives attended by him in their confinements. This he refused to do and in consequence was served with three months' notice. The colliery club then advertised for a surgeon and the Union advertised warning practitioners not to accept the post, and through the courtesy of the editors of the medical journals no more advertisements were inserted from the colliery club. The club, however, managed to secure a medical man who agreed to accept the appointment, but from knowledge which came to the club committee a letter was sent to him asking him to come at once and inclosing him three months' notice; in consequence of this he never came to take up his appointment. The result was that after Dr. Rainsbury's notice expired on June 25th, 1901, the club were without a medical officer. This state of affairs had continued up to the present. Dr. Rainsbury had been attending the club members, their wives and children at private rates. They had been informed that the club had secured another medical practitioner who insisted upon being given the appointment of a neighbouring practitioner as well as that of Dr. Rainsbury under the same club committee—a practitioner who had been asked to accept Dr. Rainsbury's appointment and had refused. This practitioner had received three months' notice from the club, but up to date no medical man had arrived to take up his duties. In regard to the friendly society question no very great result could be recorded up to date. The resolution suggesting a minimum of 5s. per member per annum had been resound, except in regard to new clubs or clubs changing medical officers, and a sum of 4s. had been substituted. But before enforcing this the Chesterfield Branch chose delegates to meet delegates from the Chesterfield and District General Friendly Societies' Council to see if affairs could be arranged amicably. Up to date the Friendly Societies Council had offered a sum of 4s. for adult members and 2s. 6d. for juveniles, but this had not been accepted by the Union and the matter was still under discussion. In regard to other questions which had been dealt with by the Union might be mentioned that of the Butterley Company and their surgeons. In this case the company sought to reduce their surgeons' fees, but on a firm front being shown by the surgeons through the Union the question of reduction was dropped. Several cases of difficulty between clubs and their surgeons had also been settled satisfactorily. Mention might be made of many other questions which the Union had dealt with or which were still under discussion; but in summarising the result of the first year's work of the Union they might state that the most pleasing result was the fact that medical men had been brought together in the meetings of the various branches and that in the discussion and interchange of opinion many old difficulties and misunderstandings had been removed and a more cordial professional feeling between neighbouring practitioners had been established. At the commencement they

found a sense of distrust amongst medical men almost universal, but they were glad to state that this was being gradually dissipated; and if no other tangible advantage had been derived the founders of the Union might feel themselves amply repaid for their trouble and work in the fact that they had raised the feeling of *esprit de corps* among the profession in that district.

On the proposition of Mr. W. B. CROSKERY (Eckington), seconded by Dr. W. DUNCAN (Clay Cross), the report was adopted.

On the proposition of Mr. R. NESBITT (Sutton-in-Ashfield), seconded by Dr. RAINSBURY, the following officers were elected: Mr. J. G. Shea, President; Mr. T. Geraty, vice-president; Dr. F. R. Mutch, honorary treasurer; and Dr. E. H. Houfton and Mr. C. J. Palmer, honorary secretaries.

On the proposition of Mr. GERATY, seconded by Mr. R. G. ALLEN (Belper), Mr. G. S. O'Rorke, M.A., solicitor, was appointed general secretary.

On the proposition of the PRESIDENT, seconded by Dr. MUTCH, it was resolved that the following rule should be substituted in place of Rule 4:—

The annual subscription for each member to be 10s., payable in advance on Oct. 1st.

On the proposition of Dr. MUTCH, seconded by Mr. W. E. M. WRIGHT, and after hearing observations from Dr. DUNCAN, Dr. H. J. NEILSON (Bulwell), and Mr. R. G. ALLEN, the following motion was carried as an alteration of the rules:—

(a) Members are asked to guarantee a sum of five guineas, or multiple of five guineas, so that in the event of indemnity being required the money may be called up in the proportion promised.

(b) Subscription to this fund is not compulsory.

(c) In case any member should apply to be indemnified from this fund who is not a subscriber to it the granting of relief to such member shall be left with the president and vice-president to decide whether there are special circumstances entitling the member to such relief.

(d) The control of this fund shall be left with the council of the union.

Addresses were then delivered by Mr. GEORGE BROWN and Mr. GEORGE JACKSON, candidates for election to the General Medical Council as direct representatives, and after the usual votes of thanks the meeting terminated.

## THE FIFTH INTERNATIONAL CONGRESS OF PHYSIOLOGISTS.

HELD AT TURIN, SEPT. 17TH-21ST, 1901.

THE following are some further abstracts of communications made to the above Congress:—

### *The Passage of CO Gas through the Placenta.*

Dr. M. NICLOUX (Paris) referred to the work of Grehan and Guingard on this subject, in which they had administered a mixture of the gas and air to a dog in gestation. The animal died in 35 minutes, and on examining the blood of the foetus it was found to contain six times less CO than that of the mother. His own experiments had been carried out on guinea-pigs and he had examined the effects of a whole series of mixtures of the gas with air, varying in proportion from 1 in 10,000 to 1 in 10. From 1 in 10,000 to 1 in 1000 the content of gas in the foetal blood was identical with that in the maternal, and in both cases was proportional to the amount in the respired air. Above the latter figure the identity disappeared, the blood of the foetus showing a steadily less and less amount as the quantity of CO was increased. Since the maternal and foetal circulations were completely independent and no direct passage of CO-hemoglobin from the one to the other could have taken place, there must have been a dissociation of the CO, and this, he concluded, was effected by the placenta. A similar dissociation was produced by the respiratory organs of a fish which were in every way comparable to the placenta. A carp plunged into a mixture of 120 cubic centimetres of dog's blood charged with CO added to three litres of water, and killed after a variable length of immersion, showed that its blood contained five, six, or even seven times that of the medium in which it had been placed. The respiration of the carp in the mixture did not seem in the least abnormal. It did not appear, however, that Dr. Nicloux had excluded the possibility of another phenomenon, explaining his results

in the two instances cited—viz., the relative affinities of the different media for the gas in question.

*The Working of the Lungs Studied by the Plethysmographic Method.*

Dr. T. G. BRODIE (London) and Dr. W. E. DIXON (London) demonstrated an air plethysmograph which they had adapted to the record of lung movements during respiration and other variations in volume, an artificial inflation being kept up. The experiments of their first series were directed to a study of the effects of nerve excitation and of drugs upon the bronchial muscles. They had found (1) that the vagus nerve contained both constrictor and dilator fibres to the bronchial muscles; (2) that the sympathetic contained no such fibres; (3) that muscarine, pilocarpine, veratrine, and chloride of gold produced constriction of the bronchi (asthmatic effect); and (4) that atropine, curare, and to a less degree chloroform and ether vapours, caused dilatation of these tubes. In a second series of experiments the changes in blood volume were observed both when air freely entered and in the case of a lobule with the bronchus previously plugged. The lung capillaries, it was found, became distended with blood when the aortic pressure rose, whether this rise had been produced by constriction of systemic vessels or by increased cardiac action. Failure of the heart, as a rule, also resulted in their distension. In asphyxia the lung volume increased during the first stage but gradually declined during the second and third stages. Dr. Brodie and Dr. Dixon were not able to convince themselves that any vaso-constrictor fibres were supplied to the pulmonary vessels and considered the results of previous observers on this point inconclusive since the action of cardio-accelerator nerves had not been sufficiently excluded.

*Sensory Nerves to the Diaphragm: their Function in Respiration.*

Professor MISLAWSKY (Kasan) cited experiments in which he had found that stimulation of the central tendon of the diaphragm caused an expiratory arrest of thoracic movements. This effect was abolished by division of the vagus either in the neck or immediately above the diaphragm. Further, excitation of the peripheral segment of a divided phrenic nerve produced an expiratory arrest of thoracic movements at the same time that it caused contraction of the midriff. The former effect was no longer seen after section of the pneumogastric nerves. Professor Mislawsky therefore concluded that the diaphragm must receive sensory fibres from the vagus and that they played a similar rôle in respiration to those supplied by the same nerve to the lungs. He had also stimulated the central stump of the phrenic nerve, but had not obtained results differing from those already well known.

*The "Negative Variation" in a Nerve and the "Action Impulse."*

A most important communication relative to the vexed question of the relationship between the so-called "negative variation" in a nerve and the functional impulse was made by Professor HERZEN and Dr. RADZIKOWSKY (Lausanne). These investigators agreed with Valentin that the two were not one and the same thing but separate phenomena, the first of which accompanied but did not constitute the second. On the other hand, they agreed with Waller that nerves more or less altered were able to manifest the electric change while they were no longer capable of functional activity. To demonstrate their contention Dr. Radzikowsky had made experiments on frogs' nerves slightly anaesthetised or spontaneously dying after removal from the animal. These were described in the *Centralblatt für Physiologie*,<sup>1</sup> and the present communication was supplementary to meet certain objections which had been raised. In the experiments referred to, the sciatic nerve with the gastrocnemius muscle attached was removed from the body, care being taken to sever the peroneal branch of the nerve as low down as possible. The whole was placed on a paraffined layer of cork in a fairly large moist chamber. The sciatic nerve was laid on a pair of Du Bois non-polarisable electrodes connected to an inductorium and the peroneal branch on another pair which led off to a galvanometer. A small capsule containing from two to four cubic centimetres of ether was also brought into the chamber. After a variable time (from 15 minutes to one hour) the muscle ceased to respond, not merely to weak currents sent in from the coil, imperceptible on the tongue, but also to very

strong (unbearable) currents. Nevertheless, with each stimulus sent into the nerve in this condition a negative variation in the branch was shown by the galvanometer. The failure of the muscle was not due to any alteration in the motorial end plates because a weak stimulus applied close up to the muscle by a third pair of electrodes at once set up contraction. The anaesthetised or dying nerve was still able to manifest a negative variation while it was unable to respond by the setting up of an action impulse. A further experiment was now brought forward to support the same view. Professor Herzen had destroyed the irritability of a proximal length of the sciatic nerve by the application of chloralose to it. When excited at this part no contraction appeared in the gastrocnemius muscle, but a deflection of the galvanometer nevertheless occurred. Stimulation of any other part of the nerve caused a response in the muscle. An objection had been raised that the deflection was not due to a true negative variation but to an electrotonic effect. There was only one means of setting this aside—viz., to find some mode of exciting the nerve which did not involve the use of an electric current. This was suggested by an experiment due to Professor Borutau, in which a portion of the sciatic nerve of a frog was exposed to drying till it had completely lost its irritability at the spot exposed. The nerve was then moistened with saline and replaced in the limb, after which the frog was poisoned with strychnine. When the strychnine convulsions came on, the limb in question took no part in the contractions, but if the sciatic nerve was divided and connected up as before with a galvanometer each convulsion was accompanied by a negative variation. Professor Herzen and Dr. Radzikowsky considered that this experiment demonstrated conclusively that an altered tract of nerve is able to allow of the passage of the negative variation, while it is no longer able to transmit a functional impulse; also, on the other hand, that the peripheral irritable part of the nerve propagated the negative variation without entering into activity. The author of this experiment, it was true, drew a different conclusion from it, but while the facts were admitted by both sides time alone would decide which of the two hypotheses was valid.

*The Causes of Muscular Fatigue.*

Professor F. S. LEE (New York) said that there were two recognised causes of muscular fatigue—viz., loss of substance necessary to contraction, and accumulation of the so-called fatigue products. In his present research he had paid chief attention to the former. Phloridzin was administered to cats for a length of time, the result being that the animals became muscularly very weak, while at the same time, as was well known, a severe glycosuria was established. Single muscles when removed from the body only gave a few contractions, and graphic records of these revealed a condition of pronounced fatigue. This was not due to any direct toxic effect of the substance upon the muscles. The drug, however, robbed the body of carbohydrate material both in the loose form as well as that combined in the proteid molecule. Hence the supposition arose that normal muscular fatigue was associated with loss of carbohydrate from the muscles. This was strengthened by the fact, which he had discovered, that when prolonged phloridzin poisoning was followed by the administration of dextrose the contractility of the muscles was rapidly restored. Various considerations led him to believe that in normally induced fatigue, there was a first stage (simple fatigue) caused by the accumulation of fatigue stuffs, followed by a later stage (exhaustion) due chiefly to the loss of carbohydrate substances. Professor Lee admitted, in the discussion which followed, that he had made no comparison between the degree of fatigue and the output of sugar in the urine, nor had he estimated the content of glycogen in the muscles at different stages. Nevertheless, in the light of the restoring effects which dextrose exerts upon the fatigued and excised heart, as shown by Locke, and in view of Prevost's results with regard to influence of these substances in aiding re-establishment of cardiac action in asphyxiated animals, both of which have been already referred to in these abstracts, it would seem that Professor Lee's views are probably correct. Professor LEE had also noted, in conjunction with Mr. C. C. HAROLD, that the muscles of phloridzinised animals rapidly passed into rigor after death. But if dextrose had been given before the animals were killed the onset of rigor was considerably delayed. These observers concluded, therefore, that absence of carbohydrate favoured the onset of rigor and

<sup>1</sup> *Centralblatt für Physiologie*, August 17th, 1901.

that in this particular there was an antagonism between rigor and contractility.

*The Action of Alcohol on Muscular Activity.*

Professor LEE and Dr. W. SALANT (New York) gave an account of experiments in which they had injected alcohol of varying strength into frogs in quantity proportional to their weights. In each case one gastrocnemius was protected from the influence of the substance, and the work which this was able to perform was contrasted with that of the opposite leg. In quantities of half a minim of 10 per cent. solution per gramme of weight the alcohol had no effect. In larger doses (from one minim to four minims of 10 per cent. solution per gramme) the amount of work was increased sometimes more than 100 per cent., while in still larger quantities exactly the opposite effects were observed. It was uncertain whether the results were due to direct action of the alcohol on the muscle protoplasm or on the intramuscular nerve terminations.

*Demonstrations of Instantaneous Micro-photographs of Living and Fixed Muscular Fibres of Hydrophilus.*

Professor HÜRTLE (Breslau) explained attempts which he had made to study the contractile phenomena of muscular fibres by means of instantaneous micro-photographs. At first he had confined himself to living fibres, but later he found it necessary to compare his results with fixed and stained preparations. The photographs were taken partly in ordinary light (exposure, 0.012 second) and partly in polarised light (exposure, 0.024 second). His chief conclusions were: (1) that within the wave of contraction the striation was closer and sharper; (2) that in polarised light a homogeneous band or space preceded the contraction wave, but whether this was due to accumulation of sarcoplasm or to a loss of the power of double refraction in the sarcous substance (a possibility indicated by the appearance of fixed preparations) was doubtful; (3) that in fixed fibres both the transverse and longitudinal striation were more obvious than in the living; and (4) that during contraction the nuclei shortened and became spiny or crumpled. The shortening, however, was an active, not a passive, event, since its extent was not proportional to the shortening of the whole fibre.

*The Relation Between the Thyroid Gland and the Parathyroids.*

Professor E. GLEY (Paris) said he could not agree with those experimenters who maintained that there was complete independence of function between the thyroid and parathyroid glands. In support of functional association he adduced the following evidence: 1. Physiological.—Whilst some animals survived complete removal of the parathyroids others presented progressive nutritive disturbances similar to those which followed complete thyroidectomy. He had observed this not alone in the dog but also in the cat and in the rabbit. 2. Chemical.—The parathyroids contained iodine just as the thyroid did and the importance of iodothyron had now been admitted. 3. Histological.—Edmunds had shown that removal of the parathyroids was followed by hypertrophy of the thyroid which revealed itself in an increased vascularity and development of embryonic tissue. With these there was disappearance of the colloid substance, as had previously been observed by Lusena and others. Conversely, extirpation of the thyroids produced alterations in the structure of the parathyroids.

*Complete Removal of the Thyro-parathyroid Organs from Dogs Fed on Bromated Fats.*

Dr G. CORONEDI (Sassari) gave the histories of two dogs which he had fed on bromated fat for different periods of time before the complete extirpation of the thyro-parathyroid apparatus. The first had been fed on bromated foods for 14 days and had received in all 22.6 grammes of bromine. Soon after the operation mild symptoms characteristic of the removal were seen, but these passed off and the animal regained perfect health, living for 71 days. Towards the end of this period grave symptoms of cachexia supervened, from which it died. The second dog was operated upon in April of the present year. It had been fed on bromated fat for 26 days previously, receiving in all 36.21 grammes of bromine. It also showed mild symptoms in the early period, from which it recovered completely, and was then alive and in perfect health. The parts removed in each case were exhibited to show that the extirpation was complete. A photograph of the second animal was also shown. Dr. G. Marchetti (Florence) had assisted in the investigation, which was not yet completed.

*Heterogeneous Thyroid Grafting.*

Dr H. CHRISTIANI (Geneva) said that he had previously

succeeded in obtaining permanent and functionally useful grafts of thyroid glands transferred from one animal to another of the same species. In his later work he had endeavoured to find out whether effective transplantation might not be carried out between animals of different species, and if so how far apart might the zoological relationship be, without barrier to success. Systematic attempts were made on various vertebrates of different classes, orders, families, genera, species, and varieties. Grafts did not succeed between animals very widely separated in the scale, such as classes and orders; some were successful between families; still more and better grafts were obtained between genera; and almost constant success was achieved between different species and varieties. His general conclusion now was that for successful thyroid grafting the animals need not be of the same species as he had previously supposed. The grafts could succeed even between those of different families. The transplanted tissue in the latter cases, however, seemed to have less vitality.

*On Effects of Suprarenal Extract not Hitherto Observed.*

Professor J. N. LANGLEY (Cambridge) described the following effects of suprarenal extract not previously observed by others. 1. Secretion of the salivary and lacrimal glands and of various mucous membranes. The effect on the salivary secretion was at first accompanied by constriction of the gland blood-vessels, but later by slight dilatation. Suprarenal extract and atropin had a mutually antagonistic influence on this secretion, much like pilocarpine and atropine. 2. An increase followed by a decrease of bile secretion. 3. Inhibition of the contractile movements of the gall-bladder. 4. Inhibition of the cardiac sphincter of the stomach (rabbit) and of the walls of the stomach (rabbit and cat). 5. Slow constriction of the pupil in the dog. 6. Contraction and pallor of the uterus, vas deferens, and seminal vesicles. 7. Dilatation with pallor of the lower end of the rectum and internal sphincter of the anus in the rabbit and slight contraction and pallor in the cat and dog. In nearly all cases the suprarenal extract produced an effect upon a given tissue similar to that caused by excitation of its sympathetic nerve, and in no case did it excite an effect similar to that produced by the cranial or the sacral autonomic nerve, as the case might be, with the possible exception of constriction of the dog's pupil. Notwithstanding, the action upon the tissues appeared to be a direct one and not occasioned through the medium of sympathetic nerve-endings, for after degeneration of the post-ganglionic fibres of the cervical sympathetic in the cat the extract produced its usual effects on the eye, the submaxillary gland, and the hairs of the face. The effects of the extract on salivary secretion and on the cardiac sphincter were demonstrated.

*Diffusion Towards the Eye of Substances Injected in the Temporal Region.*

Dr. GAETANO VINCI (Messina) said it was recognised as a clinical fact that when small doses of strychnine were injected subcutaneously in the region of the temple they acted on the eye of the same side, increasing the acuteness and enlarging the field of vision. He had therefore made experiments to determine whether soluble substances injected in this way made their way into the eye by a process of diffusion without entering, or before they entered, the circulation. Three series of experiments had been carried out, in the first of which solutions of iodide of potassium or sodium, of salicylate of sodium, and of ferro-cyanide of potassium were employed. The doses ranged from 0.2 gramme to 0.5 gramme dissolved in from two to three cubic centimetres of distilled water. After a period of from half an hour to one hour the rabbits or dogs were killed by pithing and the eyeballs were enucleated. Test reagents—starch solution, chlorine water, or nitrous acid and ferric chloride respectively—were now dropped into the orbital cavity, when the appropriate colour reaction was obtained, but on the injected side only. The colour, however, was limited to the outer wall of the orbital and to the outer half or two-thirds of the globe of the eye. In the second series 0.5 gramme doses of iodide of potassium were injected in the same way, but the eyeballs were opened and calomel powder was strewn in the interior. The mercurous chloride became converted into the iodide in both eyes, but always from four to eight minutes sooner on the injected side. This latter was to him a trustworthy indication that the substance had not entered by way of the general circulation. Dogs were employed for the third series of experiments, the animals being anaesthetised with chloroform and morphine. From 20 to 30 minutes previously to the

anæsthetisation 0.5 gramme doses of iodide of potassium or of salicylate of soda in a few cubic centimetres of distilled water had been injected into the temporal subcutaneous tissue. Hypodermic needles were now inserted through both corneæ into the anterior chamber of each eye. The outer ends of the needles were closed with small wooden stoppers. From time to time a drop or two of aqueous humour was allowed to escape and to fall into a little of the appropriate test reagent. As a method of demonstration the results could not have been more brilliant. A positive reaction was invariably manifested on the injected side from three to five minutes before the other. Evidence of the entry in this way of ferro-cyanide of potassium or of atropine or strychnine was not obtained. Dr. Vinci concluded, therefore, that soluble substances injected into the temporal region were able to penetrate ultimately into the interior of the globe of the eye by the simple physical process of diffusion.

## Looking Back.

FROM

THE LANCET, SUNDAY, NOV. 9, 1823.

### Acupuncture.

MUCH has lately been said of the efficacy of this remedy in various affections; and well-marked cases in which it has been decidedly beneficial, have been published to the world. In rheumatism, trismus, anasarca, it has been tried, and with success. The facility with which it may be used, leads us to hope that this remedy may meet with a trial from many intelligent practitioners, who may give to the profession a fair and important result of their observations. Acupuncture is a remedy of very ancient date. In the philosophical transactions for 1683, is a notice of a book written by Dr. Ryne, in which an account is given of the pathology of gout, and the various means that the Japanese made use of at that time in the treatment of their complaints, among which is Acupuncture.

It may not be uninteresting to our readers, to give an account of the various affections in which they employed it, a description of the instrument, and the mode of using it.

"The needle is made long, slender, sharp, of gold, or at least silver, with a wreathed handle.

"It is to be conveyed either by the hand or a little mallet into the part gently, a finger's breadth or more, as the case requires, and to be held there the space of 30 breathings, (if the patient can bear it,) otherwise repeated punctures are rather used. The puncture must be when the party is fasting; deeper in a great than less disease; in old than young men; in grown persons, than in those that are lean and slender; in fleshy parts, than in nervous. The needle is chiefly used in diseases of the head and lower belly, and is applied to the head in head aches, lethargies, convulsions, epilepsy, diseases of the eye, &c. The womb itself may be perforated, (*the Japanese affirm*) and the fœtus wounded, when its motions are enormous, and threaten abortion. In these cases the needle must be applied, whence the distemper arises; to the stronger on the back, to the weaker on the abdomen. When the pulse scarce is perceived, the puncture must be made in the arteries, a little besides the veins. The surgeons keep by them images, wherein all the places in the body proper for the needle, are designed by marks. The author himself was an eye-witness of the use of this puncture on a souldier, who, being afflicted with violent disorders of stomach, and frequent vomitings at sea, suddenly relieved himself by pricking a thumb's-breadth deep into four different places about the region of his *pilorus*."

*Copy of a Letter to Mr. Methuen, from his Gardener.*

"Honoured Sir,—My wif an I have taken the Ian from Winsor. Jenny Cedar has lost her head, the rest of the scrubs are all well. The Oxen are com down to prase the Gods.

From your  
humble servant," &c.

What he meant to say was :

Honoured Sir,—My wife and I have taken the influenza. The Virginia cedar has lost its head : the rest of the shrubs are all well. The auctioneer came down to appraise the goods.

## THE GENERAL MEDICAL COUNCIL: ELECTION OF DIRECT REPRESENTATIVES, 1901.

FELLOW PRACTITIONERS OF ENGLAND AND WALES,—You are perhaps aware from announcements in the medical journals that I have been forbidden at what seems a most inopportune moment by my medical advisers to take part in public meetings. They do not go so far as to advise me to abandon my candidature, but they counsel some diminution of work. I am in the enjoyment of my usual health and my eye is almost itself again. Still I am bound to respect advice given me by my truest friends, whose names would command the respect of the profession.

The relinquishment of practice would be distasteful to me and altogether beyond the necessities of the case. The only other way in which I can relieve myself of work is by retiring from my candidature for the honourable office of representing you in the General Medical Council. I can do so now without putting the Council to the inconvenience and expense of a separate election.

These circumstances determine me to withdraw from the present contest. I cannot tell you with what reluctance I do so, especially at a moment when questions of great interest to the public and the profession are before the Council, in which I have, as I believe, taken a part representing the general judgment of my fellow practitioners.

Nor can I say how grateful I feel to the profession for its kindness and confidence during the last 15 years and of the continuance of which I have ample testimony on the present occasion. I ask you to accept my best thanks.

The office of a Direct Representative in the General Medical Council, with a constituency of over 23,000, is not an easy one. Many questions present themselves at the Council Board in a very different light from that in which they appear when viewed from a purely professional standpoint. And the Direct Representative has to act accordingly. I ask you to believe that on all such questions I have tried to remember the interests of the profession as well as those of the public, and to harmonise the two.

I have endeavoured to advance medical education, to maintain the standards of professional conduct and to keep the Register pure. That I have erred often goes without saying, but I am sure you will be more blind than critical towards my faults and will give me credit for having tried to maintain the cause of Direct Representation in the General Medical Council, which, after all, even its critics must admit, is the great council of the profession.

With deepest thanks,

I am, Fellow Practitioners, your obedient servant.

25, Highbury-place, N.

JAMES GREY GLOVER.

### MEETING AT MANCHESTER.

A meeting of the medical profession was held at the Palatine Hotel, Manchester, on Oct. 31st, under the auspices of the Medical Guild of Manchester and the Medico-Ethical Society of Manchester.

The CHAIRMAN (Mr. Walter Whitehead) explained that the meeting was called to hear addresses from Dr. S. Woodcock of Manchester and Mr. Victor Horsley on subjects connected with the forthcoming election to the General Medical Council.

Dr. Woodcock said that he would most efficiently discharge his function if he addressed himself mainly to the consideration of one question which had great interest, which had excited a good deal of feeling in the profession, and which, notwithstanding that they had been considering it for so many years, still remained an unsolved problem. He referred, of course, to the midwives question. He must ask their patience while he attempted to explain what his conduct on this question had been and what his attitude was towards it. He went back only to the time of their meeting in Manchester when the opposing forces were ranged in ranks on both sides, when they had a battle royal, and when those of them who were opposed to the legislation promoted by the Midwives Committee certainly won a battle. After that they knew that a good deal had to be done and they in the Lancashire and Cheshire Branch appointed a committee with representatives on both sides of the question and they addressed themselves to drafting a measure which they thought might be generally acceptable. The Lancashire and Cheshire Branch did what it could and the report was accepted by the branch, though he was bound to admit with a minority. The report was introduced later to the Central Council in London and his visits to London had convinced him of the absolute necessity of having some alternative plan to that proposed by the Midwives Registration Committee. Mr. Asland, who was then in the Liberal Cabinet, at that time in power, told him that it was no good just to stand up and say that the medical profession would not have this or that legislation, but they must have an alternative scheme ready to propose because the promoters of the Midwives Bill had secured the ear of an influential portion of the House of Commons, they were supported by people in the very highest social position, and

unless there was an alternative scheme submitted he (Mr. Acland) was afraid that the measure would pass. Further, when he (Dr. Woodcock) arrived at the Central Council in London and began to deal with that question in the Parliamentary Bills Committee he found that Mr. Ernest Hart had exactly the same opinion as that expressed by Mr. Acland. It happened that a sub-committee to consider the amendment of the Medical Acts had just been appointed with Mr. Horsley as chairman, and he (Dr. Woodcock) and Dr. Ritchie from Manchester were members, with Mr. George Brown also. The Parliamentary Bills Committee requested that the committee which had been appointed to consider the reform of the Medical Acts should take into consideration this midwives question and they were asked to draft a Bill which they thought would be acceptable to the profession. They tackled that question and sat many times and paid a good deal of attention to the subject and they thought they were engaged in drafting a measure which would be acceptable to the profession and at the same time safeguard the interests and lives of parturient women in the country. The committee framed rules and called the women who should be registered not "midwives" but "midwifery nurses." The alteration to call them "midwives" was not in any sense their work—that was done for them when the draft left their hands. It was done in the Central Council in London. He opposed that alteration to the utmost. They made it clear that the function of the midwifery nurses should be strictly limited and that they should have imposed upon them nursing duties. The committee went further—they added an appendix which laid down distinctly the conditions under which these women would be obliged to call in medical aid. They also took into consideration that there was a danger from what were called lying-in homes. Dr. Woodcock explained the particular class of lying-in home that was referred to and said that they held that those institutions had better be brought under inspection. They framed a measure which they thought would not be objected to by the great bulk of the profession. They were told, however, that in that measure they had violated the spirit and the letter of the Medical Acts. If they had done so they had done it unintentionally; they had no idea of doing such a thing, but if that allegation was true they would have to try again, they would have to make an attempt which should be more satisfactory. But all Dr. Woodcock had to say in regard to that measure was that he felt as a mere act of loyalty to his chairman and colleagues that he was bound to support the result of their labours. He must either do that or disregard his principles and immediately trim his sails to catch the passing breeze. While supporting that measure he did not thereby infer that it was perfect. It was possible that some alternative scheme might be better and prove a better safeguard for the interests of the profession and the public, but hitherto he had not seen an alternative scheme which had altogether commended itself to his judgment. There was a scheme which was drafted, as he thought, by Dr. Bedford Fenwick and his medical friends; at any rate, it had the support of a paper called the *Medical Times and Hospital Gazette*, in which he believed at that time Dr. Bedford Fenwick and Mr. George Brown were interested. From that paper he took the following remarks. Writing in praise of their scheme there was this remarkable sentence: "It appears to us that the consequence would be that many medical men would gladly employ nurses so efficiently trained for attendance upon their poor and parish patients knowing that such parturient women would therefore receive every care and attention and that in the event of any abnormality showing itself medical assistance would be immediately summoned." They would see (Dr. Woodcock continued) that according to Dr. Bedford Fenwick and Mr. George Brown any abnormality was to be diagnosed by the nurse. It was the nurse who was to determine when the medical man was to be called in. That appeared to him (Dr. Woodcock) to be the reintroduction of the unqualified assistant in petticoats. He did not think that it was a scheme which was likely to commend itself to the judgment of the profession. Recently they had had the outline of another scheme which was called the Medical Guild scheme. There had been a little discussion as to the paternity of that measure in the press. He did not know himself that it was quite a new-born child. He thought that it was a sort of foundling adopted by the Medical Guild and it did not appear that it was got rid of by its real parent with the idea of avoiding responsibility, but he was generously hiding himself that when the child was more developed he would be able to augment the resources of its foster parent. This scheme was called "Scheme for the Protection of Parturient Women and their Offspring." It must be understood that any criticism of his was not in an unfriendly spirit. He might say that if any of them had had any experience in drafting Bills they would know that there was a little difference between suggesting outlines and drafting the clauses which might meet with some sort of acceptance by Parliament. He thought that the scheme contained very humane and on the whole very necessary suggestions in the interests of the poor people. As far as the profession went it was a perfectly ideal scheme and he would be glad to see, if that were possible, this ideal realised. The following was the preamble of the Medical Guild scheme: "That in view of the fact that a large share of the mortality and morbidity amongst the parturient women and the newly born of the poorer classes is undoubtedly due to their being attended by ignorant and untrained women, and their not having the services of fully-qualified medical practitioners, the guild is of opinion that legislation is urgently required with the sole object of putting within the reach of the poorer classes the assistance both of a trained nurse and of a qualified medical practitioner, and recommends the adoption of the following scheme as a basis for future legislation." The scheme itself was thus described: "1. That all obstetric nurses be adequately trained in hospital, examined, and registered." They would, he believed, all agree in regard to that. The next point was: "2. That the guardians of the local sanitary authority be the authority for the local administration of the scheme." There could, he said, be no objection to that. The scheme continued: "3. That the local authority shall engage one or more registered obstetric nurses, at such salary as may be practicable, whose services shall be placed, free of all charge to the patient, at the disposal of any woman living in the district, and whose circumstances shall justify it, to nurse her during her confinement and during the puerperal period." He thought that that was a very desirable provision. The next clause was: "4. That each local authority should issue to each nurse a note requisitioning the services of a registered medical practitioner. This note must be taken or sent by the woman to such practitioner as she may select who is willing to undertake this work." He did not think that the woman should have such an option. He thought the patient should have the option.

A short discussion followed in regard to what person the scheme meant to choose to whom to take the note, and Dr. Woodcock continuing said that the scheme did not say what it meant and they must take care in drafting a Bill that it was made clear as to who was referred to. Clause 4 ended as follows: "The acceptance by him of a note shall constitute an engagement on his part to render to her such assistance in her confinement as the nature of the case may demand." "5. That the notes which the practitioner received from the patients shall be redeemed by the local authority at such a rate as may be hereafter fixed. 6. That the question of the suitability of applicants be left to the local authority." He had only to say that that course meant some increase of taxation; it meant the assent of Parliament to a scheme which would involve some considerable amount of expenditure on the part of the local authority. Whether the time was quite propitious for approaching the Chancellor of the Exchequer he was not sure, but he did not wish to say that that was an insuperable difficulty. The Medical Guild was only a local organisation and could not expect to have the sort of influence which might be exercised by a larger and greater national or imperial organisation. He might say with regard to that scheme that if their own scheme failed to satisfy what appeared to be the demands of the profession, and in consequence of his having no confidence in the scheme which he had previously mentioned for the registration of nurses and seeing the difficulties in it that he did, he was prepared in regard to the guild scheme, if it were sent to the British Medical Association, which was the organisation through which they would have to work in the future to exert pressure on Parliament and on the public, to give it his most earnest attention. Under the present conditions they could not make any great impression, but if that scheme were sent to the representative meeting proposed for the Association, and if that meeting appointed a committee to deal with the matter, he was confident that it would be possible to draw up a Bill on those lines and he would give it all the support that was in his power, and he would do what he could to arrive at a satisfactory conclusion of that question which had been agitating the profession for so many years. He had no idea in the world of interfering with or violating the spirit of the Medical Act in any way. He would like to see midwifery practice entirely under the control of medical practitioners, and he thought that by-and-by they would have an Amazonian contingent in the medical profession which would satisfy the sentimental qualms of those who considered that women should be attended by those of their own sex. When he said that he was prepared to abandon the former scheme, which he was not absolutely wedded to, it was not his scheme any more than it was Mr. Brown's or Mr. Horsley's scheme, both of whom were members of the committee, and he did not remember that Mr. Brown ever protested against the report being on the lines that they were proceeding on: if they had failed in that direction let them all work together and let them have another try. The time had, however, arrived when they should cease internecine warfare and they should be able to present a united front to their opponents. He thought that he had been explicit in explaining his position. He did not speak of the conduct which he had pursued in an apologetic manner; he had explained the circumstances which led him step by step in the course he had followed. If they had succeeded in arriving at what might not be considered a satisfactory solution, then let them hark back and have another try. In conclusion Dr. Woodcock said that they would have to use the reconstituted British Medical Association in the way that people did use instruments to effect necessary results.

Mr. VICTOR HORSLEY said that in regard to the midwifery question, although it had never found full public support or adequate reference in the medical journals, there was before the medical profession a distinct series of points to which the General Medical Council had given their authority. Those points were contained in the public minutes of the General Medical Council and they embodied the principles upon which all safe legislation should be founded. His opinions on the matter were therefore in print both in regard to the safety of the public and the interests of the profession. With especial reference to what Dr. Woodcock had said he would add that he was five years ago chairman to a sub-committee for drafting the Midwifery Nurses' Bill, a sub-committee of the Parliamentary Bills Committee. They drafted the Bill mentioned by Dr. Woodcock, but he would like to remark that that Bill was circulated to the branches of the British Medical Association and was confirmed by the branches. There was no question whatever that the Association as such was pledged to legislation of some kind. It was no final legislation that was proposed, it was a draft Bill, as Dr. Woodcock said, and he (Mr. Horsley) wished to endorse entirely those opinions. If other schemes were brought forward which were better let them act on that which they thought was the best. Manchester was the place chosen for the great meeting of the Association next year and that meeting ought to be the record meeting of the Association for the reason that the representative meeting of the Association would be inaugurated there in the following July and that representative meeting would be the first occasion on which the views of the very different classes of practitioners throughout the country could be heard in a combined manner, provided, of course—and he thought it was perfectly possible—that the by-laws and articles of association were passed at the two statutory meetings which had to be held. For his part he would not accept anything as the voice of the profession on the midwifery question until it had found expression in a resolution of a really representative meeting. He assured them that when the sub-committee of which he was chairman invited criticisms from the branches, although they got favourable answers from a majority of the branches the criticisms received were, to say the least of it, not very strong. He was quite sure that was simply because they had no means of directly hearing the opinions of men representing the profession in different parts of the country. He hoped that they would understand clearly that all the legislation which had been drafted in the Association had been drafted for the purpose of counteracting the midwifery legislation introduced into the House of Commons which they all disagreed with. There was reason to believe that at the next meeting of the British Medical Association they would obtain the real views of the profession in this matter. At Cheltenham he observed that the scheme that Dr. Woodcock had referred to as emanating from Manchester was one which must commend itself to everyone who had taken an interest in the subject. Now, as regards what had passed in the Council since they elected him he was not going to inflict upon them the history of all that had occurred, which was contained more or less perfectly in the medical journals, but he wished to allude to one or two points. The

first and most fundamental point was this, that again they must use every effort to come to the statutory meeting in London to comment upon and pass the necessary articles and by-laws to carry out the scheme adopted at Cheltenham to reform the British Medical Association. His experience of the work in the Council showed him that they might ask for more Direct Representatives and they might get them, but that of itself would not reform the Council. In fact, they were entitled under the Act to only one more Direct Representative. What was one more vote? What was six instead of five, with 25 against them? There was only one way of getting at the root of the evil and that was to have an absolutely new Medical Act. It had been suggested repeatedly that if the General Medical Council was opposed to any new Medical Act that it was folly to think that any Government would favour reform. He did not believe it. He had endeavoured to state what was the relation of the Government to the General Medical Council. The Government at the present moment regarded the General Medical Council with absolute contempt and indifference, and he had pointed out in his reports to his constituents that the Privy Council had betrayed the General Medical Council on two great questions—the midwifery question and the question of practice in this country and Italy, the so-called reciprocity question. To say that the Government would not bring in a Medical Act to reform the General Medical Council if the General Medical Council opposed such a Bill was, he thought, ridiculous. The Government would support any Bill if they thought that the medical profession as a whole was going to move against them, and that was what they ought to seek to persuade the Government to think would take place if they failed to help them in the new Medical Bill. He did not believe that it would be necessary to use any threats at all nor would it be necessary with the new Association to work it on such lines because he thought the desired result could be brought about as a matter of bargain. The principle of bargain was already adopted in the Act of 1858, only it was not carried out. He believed it would be possible to recast the new Medical Act so as to provide a good bargain for them on one side and to provide that the General Medical Council should be really representative of the whole medical profession. It was essential to recognise that they could not get along without the General Medical Council. It was a very useful body when properly organised and if properly directed. The trouble had been that it was not properly worked; it was in the hands of the corporations which were now nothing but mere coteries of a few leading men in the profession, and it did not express the sense of the profession. The Council of the Royal College of Surgeons of England was composed of gentlemen in every sense of the word, but men who had arrogated to themselves the rights of all the members of the Corporation, and that was a position which he felt was an extraordinary position for the leaders of their profession to assume. But such as it was it was taken and they, with the other corporations in the General Medical Council, thought only of the interests of the corporations and not of the profession. Therefore they must have a new Medical Act and if they returned him in the following year again to represent them in the General Medical Council he would work there as he had done in the past from that point of view. But as he had said before they must not labour under any delusion, the General Medical Council was not the body that could or wished to carry out what they wanted in this work of progress and reform. He wished to speak a word with regard to the present election and in so doing he spoke simply as an individual at the meeting, as a member of the profession to which they all belonged. These elections offered a chance of ameliorating their position in the General Medical Council to a certain though perhaps small degree. But it did so from this point of view, that if the practitioners throughout the North of England, where practice was of a different kind to that which they saw in the South of England, would select a man to represent them in the Council, he believed that the result would be that they would have the direct expression of perhaps the strongest branch of the profession and that thereby they would gain power because they would then find that instead of the remarks of a Direct Representative being received with contempt and derision they would be received with respect. It was very easy for them to vote for him and to send him to the Council, but if he rose to speak on some question with which they were all agreed should be determined in a certain direction, and if one of his colleagues got up to support it and was absolutely browbeaten by the President, what did they suppose was the effect on the question? It was simply that its prestige was hopelessly damaged in the minds of many members of the Council who otherwise might have given a fair consideration to the subject. That being the position at the present time he thought to a large extent it was due to the fact that all the three Direct Representatives for England and Wales lived in London. Dr. Glover, Mr. Brown, and he himself were all well known personally to those members who represented the corporate bodies, and they could not get away from personal considerations in this case because such considerations did weigh heavily with the members of the Council and they judged of the merits of the question not only by the details of a measure but by the merits of the person who advocated it. If they returned Dr. Woodcock as representing the North, as representing medical education in the North, and above all as representing the practice of the medical profession in the North, they would have advanced one step, and a very important step, towards the furtherance of their interests in the General Medical Council. Speaking therefore as an independent and disinterested observer in that matter he could not again more strongly urge upon them that Dr. Woodcock's election would create a happy addition to their strength in the General Medical Council.

In reply to Mr. F. B. HARGREAVES Dr. WOODCOCK explained that he was much interested in the question of vaccination, which should be sufficiently and efficiently performed. He did not care who did it, but the Government should lay down some definite rule as to what was efficient vaccination and then let them make contracts with whom they liked. He (Dr. Woodcock) was not in favour of the registration of midwives. He had never thought so; he was in favour of the registration of obstetric or midwifery nurses and to the fullest extent possible he would place them under medical control.

In reply to an inquiry from Mr. R. H. WOLSTENHOLME Dr. WOODCOCK replied that he was perfectly prepared to give a full trial to the scheme at the Medical Guild of Manchester.

In answer to Mr. COLIN CAMPBELL Mr. HORSLEY stated that the question of the legality of councils of the corporations electing representatives for the General Medical Council had been settled by the South London Medical Club who obtained counsel's opinion on this point.

From that it appeared that in the case of the Royal College of Surgeons of England the corporate bodies have such powers in their charters that the courts would only say that the Council of the Corporation was justified in acting as a corporation in a matter such as an election of representatives. It was only by fresh legislation that the profession could procure the restoration of their rights. The universities were in a worse case, and it was notorious that the member of the General Medical Council representing the University of Durham was elected by clergymen, lawyers, and only a sprinkling of medical men.

Mr. WOLSTENHOLME said he was most anxious to support Dr. Woodcock as a local candidate and would do so if Mr. Horsley and he would do their best in the case of midwives being registered to see that they should act as nurses and should do the nursing themselves. He gave details of a midwife in his neighbourhood who did not do any nursing.

Dr. WOODCOCK explained that the British Medical Association Bill had a distinct clause penalising a midwife who employed an unregistered woman to assist her.

Dr. BROWN RITCHIE pointed out that any deputy must be registered. The conversation on this subject was concluded by Mr. HORSLEY who said that the Bill of the Association contained regulations that each of these registered women was to nurse as well as to attend to the labour, and if anything happened that such a woman could not go to a case she had a perfect right to employ another woman who was equally registered as herself to go and do the work for her as a deputy. It was the same thing as themselves, if they could not do a case they sent their assistant or a friend, but they had to send some one who was defined under the same Act of the Legislature, and that was the real point at issue.—In reply to Dr. BROWN RITCHIE, Mr. HORSLEY said they were all agreed that any individual who touted himself for patients after the manner of the medical aid societies would be just as liable to the penal action of the General Medical Council as a man connected with a medical aid society that touted for members.

In answer to a further question by Dr. BROWN RITCHIE Mr. HORSLEY said that the members of the General Medical Council were beginning to recognise that the corporations were of no use for disciplinary purposes and he thought that their responsibility in that respect was in course of recognition by the authorities.

Mr. G. H. BROADBENT inquired of Dr. Woodcock if he would do all that he could to insist in the General Medical Council on the fixing of a wage-limit and also on the Council insisting on friendly societies being under the direct control of the medical staff.

Dr. WOODCOCK replied that he did not suppose the General Medical Council had any control over anyone but registered persons. He was in favour of a wage-limit but he considered that one great conciliation board would not be of much value, especially as the representatives of the friendly societies declined altogether to discuss the question of wage-limit. Local conciliation boards might be instituted, but there ought to be clear understanding on the part of every member of the board that there should be a wage-limit.

Dr. C. MACPHE (Bolton) said he had had a sort of feeling that Dr. Woodcock was not quite in line with their opinions, but his explanation was so clear and explicit that no one would go away without the conviction that he was the man to support.

The usual votes of thanks terminated the proceedings.

#### ANNUAL DINNER OF THE WIGAN AND DISTRICT MEDICAL GUILD.

Mr. Victor Horsley and Dr. S. Woodcock were entertained by the Wigan and District Medical Guild on Oct. 31st on the occasion of the annual dinner of the guild held at the Royal Hotel, Wigan, with Mr. W. MITCHELL ROOCROFT in the chair.

Sir WILLIAM M. BANKS proposed the toast of "The Wigan and District Medical Guild." He said that he would like to explain to Mr. Horsley the way in which the guild worked, and he gave as an example the facts of a case of a certain medical man who came to Wigan and paid a large sum of money for a practice, afterwards marrying and having a family. He had borrowed the money to pay for the practice, and after many a long year he paid it off and then contracted an illness from a patient and died, leaving a widow and three little children. That man was a member of that guild. The members of the guild decided that for 12 months not a single club that that medical man had held should be accepted by any practitioner in the town, and the practice was sold for a good and fair price for the benefit of the widow and children. All the members of that guild played fair with the in-coming medical man and saw to it that the patients of the man who had died were not lost to the practice. Sir William Banks concluded by discussing the two things from which he considered the profession suffered most—namely, the over-pressure of numbers and the utter want of cohesion.

Dr. WOODCOCK also spoke for a short time in support of this toast. Referring to the excellent results obtained by medical men combining together he said that at Oldham so complete was the organisation of the medical men that the friendly societies had to pay ordinary medical fees.

Mr. ROOCROFT, chairman of the Wigan and District Medical Guild, in responding to the toast, said that there were only two medical men in the district who were not in the guild, and one of those was connected with a medical aid association, and one of them, in his opinion, a young and misguided man and a stranger. They pitied him for being a slave and sincerely trusted that it would not be necessary to call in to their assistance those severer measures which might be used if they acted on the resolution passed by the General Medical Council that they disapproved of medical practitioners who associated themselves with medical aid societies that touted for patients.

Mr. LUTHER COOKE proposed the health of "The Guests," which was replied to by Mr. VICTOR HORSLEY.

Mr. HORSLEY said: Mr. Roocroft and gentlemen, I thank you very much for your kind reception of your guests. I may venture to say that I am specially qualified to do so, if Mr. Mayor will allow me to speak on behalf of the non-medical as well as the medical guests, because the General Medical Council on which I have the honour to sit by your favour is a body constituted to protect the interests of the public as well as to watch over the interests and education of the pro-

profession. As a matter of fact, I do not think that the public has any idea of what the functions of the General Medical Council are. That body was constructed by the State in order that the public might recognise who was a properly qualified medical practitioner and who was not. It is quite true the State also agreed that if medical men would duly qualify themselves the State would protect their practice, but I regret to say that the State has not carried out its share of the bargain. The General Medical Council has, however, done an inestimable service to the general public because it is the solitary exception of a professional body that purifies the profession it is connected with. The Incorporated Law Society, if we may trust the papers, might do much more for the lawyers, but the General Medical Council has done up to the present time a great deal in purging the medical profession of evil-doers and in that respect it has done well. In regard to what Sir William Banks has said of the overstocking of the profession a great many of the evils of the medical aid associations did arise from overstocking of the profession, but four or five years ago I showed that the flow into the profession of recruits had begun to diminish steadily, the decrease beginning as long ago as 1895, and from that time until now there has been a steady diminution so that we cannot say at the present moment that overstocking is the cause of medical aid associations. I believe that this medical aid question is partly a socio-political question and partly a financial question on the part of the friendly societies—they want to buy in the cheapest market. The members of the friendly societies cannot recognise the conditions of medical practice, they cannot recognise that under the so-called contract system they are not buying what they think they are buying, they are not getting a fair return for what they consider a legitimate expenditure. In other words, they do not get medical attendance in the proper sense of the word. This brings us to a misunderstanding of the General Medical Council towards medical aid work for many years. They no more understood the question than did the general public. When I entered the Council four years ago it was quite evident that its members did not grasp the conditions under which a medical man connected with a medical aid society carried on his work, because at that time, four years ago, there was no intention on the part of the General Medical Council to take up the attitude which we were delighted to see it adopt in the case of Dr. Irvine. Now the General Medical Council has through a special resolution offered to look upon any case properly brought before it—any specific case—in the same way as it would look on any other instance of unprofessional conduct. And here, again, I think the public do not understand the bearing of what we call unprofessional conduct; they do not understand that medical etiquette is a system calculated to preserve that due respect for the responsibility of life which every medical practitioner takes upon himself when he becomes a qualified medical man. You must have some such system to put that responsibility on to one individual and to keep it there, and it is that sense of responsibility which furnishes that basis of action on the part of this guild which seems to me most pathetic and tragic in its details—I refer, of course, to the case of the sale of the practice in this town arranged for the widow by this guild. I only want to emphasise the fact that from the point of view of the public, as well as from the point of view of the profession, the interests of both are the same. It is our interest to see that the members of our profession do their work honourably; it should be the interests of the public to support us in endeavouring to carry that out. As soon as the public recognise our motives you may be perfectly sure that the public on their side will do their part, and if they only learn that we are working for the safeguarding of the health of the community then they will support the profession in exactly the same way as they have gradually come to do in regard to sanitation. The public gradually learnt that the medical profession in endeavouring to gain sanitary reform was acting honourably in the interests of the public. I believe that it will be the same in regard to friendly society work and that it will be brought about by a better understanding and by meetings of this kind. I do not believe in a conciliation board. I do not believe in artificial means of any kind in which there is not to be a free and clear discussion by both parties. But this guild represents to my mind an ideal condition which would be stronger if it were under another name, and that name I should like to see the "British Medical Association." It is perfectly evident to everyone who studies social politics at all that combination is absolutely essential to progress and, of course, it follows that we must have every member of the profession enter into such combination. You have in the British Medical Association some 18,000 members of the profession, that is our combination. If we could only have this Association divided up into small bodies having real autonomy each of these bodies or divisions in a town—such, for instance, as your guild—would be a division of the British Medical Association, then by each of these bodies sending a representative to an annual meeting you would have the most complete combination of the profession at one blow. This is what we hope to see carried out in the next session by the adoption of the by-laws and regulations of the British Medical Association. I hope that some of you may find it possible to come to London to the statutory meetings and support the scheme to remodel the Association by passing the new articles and by-laws; I hope from the bottom of my heart that you will send Dr. Woodcock to the Council; and I intend, when my seat at the Council becomes vacant, to ask you to send me there for another term; and I believe that at the end of that period we shall find ourselves not only working with a reformed British Medical Association but also under the influence of a new Medical Act.

Dr. W. CARTER (Liverpool) proposed "The Town and Trade of Wigan," which was responded to by Mr. T. FYANS, the mayor, and by Mr. W. BERRY, chairman of the Wigan Infirmary.

**CHARING CROSS HOSPITAL.**—The Council have decided to add an ophthalmic department to this hospital. The days and time of attendance for patients will be on Wednesdays and Saturdays at 9 A.M.

**LITERARY INTELLIGENCE.**—MESSRS. W. B. Saunders and Co. have in the press for early publication during the autumn "Anatomy in Relation to Art," in one quarto volume, and "Regional Anatomy," fourth edition, in two volumes. Professor George McClellan, professor of anatomy, Pennsylvania Academy of Arts, is the author of both works.

## ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN ordinary meeting of the Comitia was held on Oct. 31st, Sir WILLIAM SELBY CHURCH, Bart., the President, being in the chair.

The following gentlemen having passed the required examination were admitted as Members of the College:—Robert Hamilton Bell, M.A., M.B. Cantab., L.R.C.P. Lond.; Leonard Stanley Dudgeon, L.R.C.P. Lond.; Charles Henry Fennell, B.A., M.B. Oxon., L.R.C.P. Lond.; David Nunes Nabarro, M.D., L.R.C.P. Lond.; Frank Charles Shruballs, M.A., M.B. Cantab., L.R.C.P. Lond.; William Mitchell Stevens, M.D., L.R.C.P. Lond.; Septimus Sunderland, M.D. Brux., L.R.C.P. Lond.; and Eustace Talbot, M.A., M.B. Cantab., L.R.C.P. Lond.

Licences to practise medicine were granted to 106 gentlemen who had passed the required examinations.

The following communications were received:—

1. From the Lord President of the Council forwarding a letter from the Egyptian Government announcing that a Congress of Medicine will be held in Cairo in December, 1902, and inviting the College to send delegates.—It was decided to send a delegate to the Congress on the nomination of the President.

2. From the President of the Fourteenth International Congress on Medicine to be held at Madrid in April, 1903, inviting the College to take part in the same, and inclosing copies of the Regulations.—The invitation was accepted.

3. From the executors of the late Dr. John Cavafy announcing his bequest of £500 to the endowment fund of the College.—The PRESIDENT proposed that a formal vote of thanks should be forwarded to the executors and other members of the family for the handsome gift.—This was carried unanimously.

4. From Dr. Norman Moore, conveying a proposal from Mrs. Fitzpatrick to found a lectureship at the College on the History of Medicine in memory of her late husband, a Member of the College, and inclosing a draft for £2000.—On the proposition of Dr. NORMAN MOORE, seconded by Dr. J. F. PAYNE, a cordial vote of thanks was accorded by the College to Mrs. Fitzpatrick for her munificent gift which was gratefully accepted.

5. From Mr. S. Cowell, reporting certain proceedings of the Council of the Royal College of Surgeons of England.

The audited accounts for the year ending Sept. 29th last were laid before the College and the quarterly report of the Finance Committee was received.

A report was received from Dr. C. Theodore Williams, the delegate of the College at the recent Congress on Tuberculosis, and another report was received from Sir Felix Semon who was appointed to convey the congratulations of the College to Professor Virchow on his eightieth birthday.

A report was received from the Committee of Management stating that two schools had been omitted from the list of institutions recognised by the Examining Board in England for instruction in chemistry, physics, practical chemistry, and biology, and that Blaenau Festiniog County School and Southend Technical School had been added to the list. Dr. Frederick Taylor was re-elected a member of the Committee of Management and Dr. P. H. Pye-Smith was re-elected a member of the Laboratories Committee.

Reports were received from the Laboratories Committee and from the Examiners for the Licence.

A list of books presented to the library during the past quarter was received and the thanks of the College were accorded to the donors.

The REGISTRAR, in accordance with a resolution of the College of July 25th last, moved that by-law lxvi. be amended by the addition of the words in italics in the copy below, and re-enacted for the first time as follows:

The Council shall consist of the President, censors, and treasurer of the College, of the representative of the College in the General Council of Medical Education, of one of the representatives of the College on the Senate of the University of London, and of 12 other Fellows of the College.

Also that the following regulation should be appended to the by-law:

*Each University representative shall serve alternately as a Member of Council for a term of two years, or for such shorter term as he may remain a representative.*

The PRESIDENT then dissolved the Comitia.

## Public Health and Poor Law.

### LOCAL GOVERNMENT BOARD.

#### ANNUAL REPORTS OF MEDICAL OFFICERS OF HEALTH.

*City of London.*—The condition *quod* revaccination of the resident population of the City is not eminently satisfactory, at least in so far as the information in the hands of the medical officer of health is concerned. According to this only four adults were revaccinated during the year 1900. It is not clear, however, how the information with regard to revaccination is procured, and doubtless a large number of persons undergo the operation unknown to the authorities. Dr. W. Sedgwick Saunders, the late medical officer of health, advised that no unvaccinated child should be admitted into the artisans' dwellings, and Dr. W. Collingridge practically endorses the recommendation. The City forms a very important distributing centre for certain foods and as such it is of interest to the consumer to know that 312 loads of vegetables, condensed milk, fish, tinned meat, &c., were removed at the request of the owners during 1900. We note, too, that a large quantity of unwholesome fruit consigned to jam manufacturers in this country was destroyed. As many as 410,380 tons of meat were delivered at the Corporation Markets, Smithfield, during the year now under review, and of this amount some 962 tons were seized by the inspectors. The proportion of "country" and "town" killed meat delivered is gradually decreasing, while that of "foreign" American and Australian meat is steadily increasing. The condemned meat is apparently disposed of to a firm of contractors who, during 1900, paid £2525 3s. for it. It seems that the meat is treated in some fashion—perhaps with picric acid—before being disposed of, but it would be instructive to know the ultimate destiny of such meat. At Billingsgate Market 187,684 tons of fish were received, the bulk of which was land-borne. Of this total nearly 770 tons were condemned.

*Southampton Urban and Port District.*—The census population of Southampton was 104,911, figures which showed that the estimates had been somewhat in excess. As regards small-pox there were 21 cases isolated during the year, several of them having been removed direct from mail-steamer arrivals in the port, and the hospital ship seems to have performed good service in the matter of isolation. Mr. A. Wellesley Harris, the late medical officer of health, but the author of the report under notice, advocates the inclusion of small-pox in the provisions of the "plague order." Were this the case local authorities to whose districts persons from small-pox infected ships are travelling could be informed of their arrival. The new isolation hospital was opened during 1900, and already the neighbouring authorities have made use of this provision for cases of infectious diseases occurring in their districts. The charge for such patients for the public wards is one and a half guineas a week, and for the private wards three guineas, but the charges vary somewhat according to the nature of the disease. The provision of private wards will be very acceptable to persons able to pay for them, albeit this practice may lead to some unpleasant distinctions at times. The annual report as to the work in this part of Southampton shows what a serious responsibility has devolved upon the medical officer of health in consequence of the large transport traffic passing to and fro between South Africa and Southampton. Mr. Harris reports that about 45,000 troops were brought to the port during 1900, and amongst them were many suffering from enteric fever. The isolation provision at Southampton seems to be now very complete, and arrangements have been made with the War Office for the provision of special contact camps for troops under observation. The good work which has been done at Southampton is very largely due to the efforts of Mr. Wellesley Harris who is to be cordially congratulated upon his promotion to a metropolitan borough.

*Borough of Hackney.*—Dr. J. King Warry draws attention in his current annual report to the difficulty which the modern "flat" presents in the direction of the satisfactory disposal of house refuse, and it is a difficulty with which most dwellers in "flats" have been brought inconveniently into contact. Some of Dr. Warry's remarks apply more particularly to the tenements of the poorer

classes, but they are not without application to the highly-rented "flats" of the well-to-do. The storage of house refuse for a week in the scullery, however "sanitary" the dustbin may be, is open to the strongest objection and is more to be condemned than the shoot which has an opening into the staircase or passage in connexion with each floor. But perhaps the most objectionable of all is when the shoot opens directly into the scullery or kitchen and is only separated therefrom by a door which is supposed to be, but rarely is, air-tight. When the shoot is being used by other occupants of the block a cloud of highly offensive dust is apt to force its way through the interstices of the door to the great inconvenience of the occupants of the room and to the serious pollution of articles of food. The erection of such devices as these should no longer be allowed.

#### VITAL STATISTICS.

##### HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 7003 births and 3859 deaths were registered during the week ending Nov. 2nd. The annual rate of mortality in these towns, which had been 15.9, 16.8, and 16.7 per 1000 in the three preceding weeks, rose again last week to 17.6 per 1000. In London the death-rate was equal to 17.4 per 1000, while it averaged 17.7 in the 32 large provincial towns. The lowest death-rates in these towns were 8.1 in Croydon, 10.5 in Swansea, 11.0 in Cardiff, and 11.5 in Leicester; and the highest rates were 21.5 in Liverpool and in Newcastle, 22.0 in Burnley, 22.1 in Preston and in Salford, and 23.7 in Blackburn. The 3859 deaths in these towns included 371 which were referred to the principal zymotic diseases, against 488, 468, and 398 in the three preceding weeks; of these 371 deaths 88 resulted from diarrhoea, 71 from diphtheria, 65 from measles, 59 from "fever" (principally enteric), 46 from scarlet fever, 35 from whooping-cough, and seven from small-pox. No death from any of these diseases occurred last week in Croydon; in the other towns they caused the lowest death-rates in Brighton, Cardiff, Nottingham, Derby, and Oldham, and the highest rates in West Ham, Blackburn, Sheffield, and Sunderland. The greatest mortality from measles was recorded in Norwich, Blackburn, Huddersfield, Halifax, and Sheffield; from whooping-cough in Sunderland; from "fever" in Salford and Halifax; and from diarrhoea in West Ham, Burnley, Preston, Huddersfield, and Sunderland. The mortality from scarlet fever showed no marked excess in any of the large towns. The 71 deaths from diphtheria included 36 in London, six in Liverpool, four in West Ham, four in Sheffield, and three in Bristol. Six fatal cases of small-pox were registered in London and one in Plymouth, but not one in any other of the 33 large towns. There were 284 small-pox patients under treatment in the Metropolitan Asylums hospitals on Saturday, Nov. 2nd, against 175, 172, and 180 on the three preceding Saturdays; 169 new cases were admitted during the week, against 37, 47, and 57 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had increased from 2994 to 3353 at the end of the eight preceding weeks, had further risen to 3391 on Saturday last; 425 new cases were admitted during the week, against 422, 404, and 400 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 186, 196, and 242 in the three preceding weeks, further increased last week to 327, but were 24 below the corrected average. The causes of 39, or 1.0 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Salford, Bradford, Leeds, Hull, and 10 other smaller towns; the largest proportions of uncertified deaths were registered in Nottingham, Liverpool, Sunderland, and Newcastle.

##### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had risen from 14.5 to 19.3 per 1000 in the four preceding weeks, further increased to 19.9 per 1000 during the week ending Nov. 2nd, and was 2.3 per 1000 above the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 14.4 in Paisley and 14.5 in Greenock to 22.1 in Leith and 22.2 in Dundee. The 634 deaths in these towns included 32

which resulted from diarrhoea, 14 from measles, 14 from "fever" (including one from bubonic plague), nine from diphtheria, five from scarlet fever, and five from whooping-cough. In all, 79 deaths were referred to these principal zymotic diseases last week, against 79 and 69 in the two preceding weeks. These 79 deaths were equal to an annual rate of 2.4 per 1000, which was 0.7 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of diarrhoea, which had been 32, 30, and 27 in the three preceding weeks, rose again last week to 32, of which 15 occurred in Glasgow, five in Dundee, and four in Aberdeen. The deaths from measles, which had been 15 and 12 in the two preceding weeks, rose again to 14 last week, and included 13 in Glasgow. The fatal cases of "fever," which had been six, five, and 13 in the three preceding weeks, further increased last week to 14, of which 10 (including the death from bubonic plague) were registered in Glasgow, two in Edinburgh, and two in Paisley. The deaths from diphtheria, which had been 12 and five in the two preceding weeks, rose again to nine last week and included four in Glasgow and three in Edinburgh. The fatal cases of scarlet fever, which had been seven, five, and four in the three preceding weeks, increased last week to five, of which four occurred in Glasgow. The five deaths from whooping-cough showed a decline from recent weekly numbers and included two in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 75, 97, and 133 in the three preceding weeks, were again 133 last week, and were 15 below the number in the corresponding period of last year. The causes of 27, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 19.7, 19.9, and 19.3 per 1000 in the three preceding weeks, rose again to 22.7 per 1000 during the week ending Nov. 2nd. During the past four weeks the death-rate has averaged 20.2 per 1000, the rates during the same period being 16.1 in London and 16.0 in Edinburgh. The 163 deaths of persons belonging to Dublin registered during the week under notice included 19 which were referred to the principal zymotic diseases, against 21, 10, and nine in the three preceding weeks; of these, nine resulted from diarrhoea, five from "fever," four from whooping-cough, and one from scarlet fever. These 19 deaths were equal to an annual rate of 2.6 per 1000, the zymotic death-rate during the same period being 1.5 in London and 1.3 in Edinburgh. The fatal cases of diarrhoea, which had been 14, five, and four in the three preceding weeks, rose again last week to five. The deaths referred to different forms of "fever," which had been eight, six, three, and 0 in the four preceding weeks, increased to five last week. The mortality from whooping-cough exceeded that recorded in any recent week. The 163 deaths in Dublin last week included 42 of children under one year of age and 42 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a marked increase over the respective numbers in the preceding week. Eight inquest cases and eight deaths from violence were registered; and 58, or more than a third, of the deaths occurred in public institutions. The causes of eight, or nearly 5 per cent., of the deaths in Dublin last week were not certified.

### THE SERVICES.

#### ROYAL NAVY MEDICAL SERVICE.

ON the occasion of the return of their Royal Highnesses the Duke and Duchess of Cornwall and York in H.M.S. *Ophir* from the Royal visit to the colonies Surgeon Robert Hill has been promoted to Staff Surgeon in His Majesty's Fleet.

The following appointments are notified:—Staff Surgeon J. Hughes to the *Amphitrite*. Surgeons: C. S. Bennetts to the *Fearless*; W. W. Keir to the *Lion*; W. H. Pope, to the *Rinaldo*; G. Ross to the *Juno*; S. T. Reid to the *Vestal*; G. M. Eastment to the *Gleaner*; and J. C. Rowan to the *Mutine*. Civil Practitioner A. H. S. Todd, to be Surgeon and Agent at Kingstown and Dalkey.

#### ROYAL ARMY MEDICAL CORPS.

Surgeon-General A. F. Preston, Director-General, Army

Medical Service (temporarily), to be an Honorary Physician to the King, vice Surgeon-Major-General W. A. Thomson, retired pay, deceased. Dated Nov. 2nd, 1901.

Major C. C. Reilly has arrived at Dover and has been posted to the Station Hospital, Western Heights, for duty. Captain G. A. Moore has left Shorncliffe for service in South Africa. Lieutenant A. J. Williamson proceeds from Lincoln to York for duty. Surgeon-Lieutenant K. N. Taylor, Army Medical Reserve (3rd Volunteer Battalion the Essex Regiment), assumes the duties of Assistant to the Medical Officer in charge of officers, women, and children, Colchester.

Captain R. E. G. Phillips is seconded for service with the South African Constabulary. Dated March 17th, 1901. Lieutenant-Colonel H. J. McLaughlin retires on retired pay. Dated Nov. 6th, 1901.

#### MILITIA MEDICAL STAFF CORPS.

Montague Adye Cholmeley to be Surgeon-Lieutenant.

#### VOLUNTEER CORPS.

*Artillery*: 2nd Devonshire (Western Division, Royal Garrison Artillery): Surgeon-Lieutenant L. L. Hanham to be Surgeon-Captain. *Royal Engineers*: 1st Newcastle-on-Tyne: Surgeon-Lieutenant-Colonel R. F. Cook retires under paragraph 111 Volunteer Regulations, with permission to retain his rank and to wear the uniform of the corps on retirement. Dated Nov. 2nd, 1901.

#### VOLUNTEER MEDICAL STAFF CORPS.

The Manchester Companies: Captain H. D. Mason, Royal Army Medical Corps, to be Adjutant on increase of Establishment.

#### SOUTH AFRICAN WAR NOTES.

Civil Surgeon W. M. Mackay left Cape Town for England on Oct. 24th.

Captain D. D. Shanahan, R.A.M.C., received a gunshot wound in the right hip at the action near Vleifontein on Oct. 24th.

#### ARMY ADMINISTRATION.

A new Order in Council has been published in the *London Gazette* of Nov. 5th defining the duties of the principal officers who, under the Secretary of State for War, are charged with the administration of the departments of the army. Speaking broadly, the duties and position of the principal heads of departments, as it seems to us, remain much the same as before, subject, however, to their being more or less modified according as they happen to come under the terms of the new Order under the direct control or simply under the supervision of the Commander-in-Chief. In the case of the Adjutant-General's department, for instance, it is under the control of the Commander-in-Chief, while in that of the Director-General of the Army Medical Department the word "supervision" is used to define the Commander-in-Chief's relation to the head of that service. It will be seen, however—and this the great point—that the Director-General is to advise the Secretary of State on all matters connected with his department. We make the following extract from the Order in question:—

"*Department of the Director-General, Army Medical Department.*—The Director-General, Army Medical Department, shall, under the supervision of the Commander-in-Chief, be charged with the administration of the medical establishments of the army and of the Royal Army Medical Corps, with dealing with sanitary questions relating to the army, with the preparation of medical and sanitary statistical returns, and with the supply of medical stores to the army. He shall advise the Secretary of State as to the general distribution of the Royal Army Medical Corps, as to the appointment of officers to, or their removal from, responsible positions therein, and on all other matters connected with his department. He shall make such inspections as may be necessary to ensure the efficiency of the services under his control, and shall submit proposals for the annual estimates for the medical services."

#### THE WAR IN SOUTH AFRICA.

The War Office on Nov. 5th issued its usual table showing the casualties in the field force in South Africa reported during the month of October and the total casualties reported from the beginning of the war up to and including that month. From this we gather that the reduction of the military forces through war in South Africa—from deaths, missing, and prisoners, and invalids discharged as unfit for

further service—amounts to a total of 22,773 officers, non-commissioned officers, and men.

#### HOSPITAL ORDERLIES FOR THE ROYAL ARMY MEDICAL CORPS.

The Director-General, Army Medical Service, has intimated that hospital orderlies are still sorely needed for service in South Africa, and that the immediate assistance of the St. John Ambulance Brigade to the extent of 200 men would be very highly valued.

## Correspondence.

"Audi alteram partem."

### THE DANGERS OF A COMMON COLD.

To the Editors of THE LANCET.

SIRS,—I feel sure we are all pleased to see in our public places, cars, &c., notices prohibiting spitting. Whether we Englishmen are more prone to that form of dirtiness and bad taste than our American cousins and foreign friends I am doubtful. The upper few inches of the earth's living mould is the natural and proper receptacle of all animal and human excreta. Its deposition at a sufficient distance from habitation is neither poisonous to its surroundings nor offensive to the most delicate taste. That we must expectorate under many conditions too numerous to mention and at most inconvenient times and places is not sufficiently remembered by our sanitary legislators. The use of soft paper handkerchiefs ought largely to be encouraged as being much preferable to linen: eventually they should find their way to that resolver and perfect cleanser of all dirt, the fire. It is quite possible that at some future time all municipal authorities will provide in certain situations receptacles for the holding of used handkerchiefs until their removal by the corporation. The association of man with his fellows bristles with difficulties and dangers. I should like to instance particularly the infectiousness of common colds. Whether these colds, catarrhs, influenzas (?), and febriculas are produced by a chill or are one of the many manifestations of the growth of specific and distinct *materia morbi* is a question awaiting the patient investigations of the bacteriologist. That colds are personally infectious is an accepted axiom by many of the intelligent laity, and I know many people with delicate chests who do not fear exposure to inclement weather, but who, from personal experience, have a righteous dread of coming near anyone suffering from a cold. The opinion of our profession on this subject is only half-formed and very insufficiently insisted upon.

We are all too familiarly aware how a cold runs through a family, and it must be the experience of all practitioners how catarrhal inflammations of the mucous membrane break out at varying seasons of the year, with epidemic severity. The sequelæ of so-called simple colds are in all conscience severe enough, if we accept the *ipse dixit* of the public and the general voice of the profession on the point. It therefore seems a cruel thing that we should not warn our patients and the public against the infectiousness of most, if not of all, colds, and particularly during the catarrhal stage. Important as may be the prevention of spitting that of disseminating colds is equally so. The person suffering from a cold who attends a public or private indoor gathering, perhaps with children and people troubled with delicate chests, throats, &c., is an immediate source of perilous infection.

At this season of the year a small, stuffy room, flaming gas-lights, a temperature of from 70° to 80° F., the practical absence of bright sunlight by our moisture-laden air, heavy curtains round the all too small windows, and the vitiated exhalations of the people present, seem almost perfect surroundings for the luxuriant cultivation and growth of anaerobic saprophytes.

Personally when called into a house and finding a patient suffering from cold I always warn the members of the household of its infectiveness and advise the avoidance as much as possible of all immediate personal contact. Kissing must be a common source of contagion, and children and babies are often martyrs to this injudicious custom. Good ventilation is essential in the room. From personal experience of the recent rational treatment of consumption by fresh air and sunlight I am led to believe that a great part of its efficacy is due to its largely preventing the risk of recurring catarrh.

The unfortunate owner of a cold before mixing with his fellows should carefully disinfect his oro-nasal passages, always remembering that whilst so possessed he continues a treacherous friend and a dangerous enemy.

I am, Sirs, yours faithfully,

R. PROSSER WHITE, M.D. Edin..

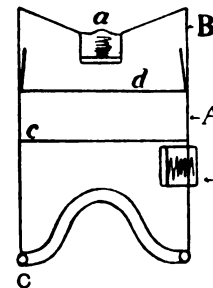
Honorary Medical Officer, Royal Infirmary, Wigan.

Oct 28th, 1901.

### A SIMPLE APPARATUS FOR ETHER NARCOSIS.

To the Editors of THE LANCET.

SIRS,—When, towards the end of last August, I was in Aix-la-Chapelle I visited a nursing-home conducted by Dr. Longard and Dr. Beaucamp, and was there shown by the former a mask for the inhalation of ether which I do not remember to have seen in this country. As this mask seems to have very definite advantages over those generally in use I venture to call the attention of those interested in such matters to the claims put forward on its behalf. It consists (see section) of a metal



mantle (A) which is closed on the one side by a funnel-shaped lid (B) and finished on the other by an indiarubber cushion (C) which forms the face-piece. In the deepest part of the lid are a few holes which are closed from within by a spiral spring valve (a), so that air finds ingress but no egress. This is the inspiration valve. The expiration valve (b) is near the face-piece. Between the valves are two horizontal fine wire sieves (c and d). The upper one is removeable, and between the two some gauze is laid. With the patient in the usual position some ether is poured on to the lid. As the patient inhales the valve opens and the fluid runs down and falls on the metal sieve (d) and thence on to the gauze. From there it passes on to the lower sieve, wetting the wires and filling up the meshes. When inhalation takes place what reaches the lungs is not pure ether, but ether which by means of the sieve arrangements has been finely mixed with atmospheric air.

The first masks which were made were found to have the disadvantage of generating ice when the atmosphere contained much moisture. This has now been remedied by the introduction of a ring-shaped thermophore which exactly fits the lid. Before the inhaler is used this thermophore is detached, heated in hot water for a few minutes, and replaced. Its presence is found to obviate the difficulties which formerly arose from the formation of a freezing mixture.

The experience of three years' constant use of this inhaler on every kind of patient may be summed up as follows: 1. Women and young men become completely unconscious in from two to three minutes, sometimes less. In older men six minutes may be necessary, but there is never any stage of excitement even in inebriates. 2. No preliminary administration either of gas or chloroform is necessary, a matter of very considerable importance to the administrator. 3. The amount of ether required for the production of complete anaesthesia is very small. For children from five to 10 cubic centimetres suffice; women require from 15 to 25 cubic centimetres, while for men, especially inebriates, from 30 to 50 cubic centimetres may be necessary. This is an appreciable saving, being about a third of what is used in the ordinary forms of ether inhalation. Lastly, the mask is exceedingly portable and does not easily get out of order. I do not know whether any of our instrument makers keep this mask, but an inquiry addressed to Dr. Longard at Aachen, Rhenish Prussia, would meet with a prompt reply. The price, I understand, is about 30s.

I am, Sirs, yours faithfully,

York-street, W., Oct. 21st, 1901.

LEONARD WILLIAMS.

### SCHOOL PUNISHMENTS.

To the Editors of THE LANCET.

SIRS,—Your interesting leading article on "School Punishments" in THE LANCET of Oct. 26th, p. 1131, opens up a subject of great importance to medical men in general and to

medical officers of schools in particular. The discreditable incident narrated therein should make every medical officer carefully inquire into the punishments inflicted in the school to which he is attached. In a properly organised school the system of punishments has been carefully thought out and the punishments graduated according to the gravity of the offence. Indiscriminate methods, such as boxing the ears, shaking by the shoulders, use of ruler, should be abolished. Your article does not mention the most valuable method of inflicting disciplinary punishment—namely, penal drill. This is performed under the supervision of the drill sergeant who sees that it is well and smartly taken. The advantages of this method are that it involves physical exertion and can be performed in the open air.

All disciplinary punishments of an ordinary class have to be entered in a public book, cause shown, and signature of the master inflicting the punishment inserted. In all cases penal marks are given which rank against the grant of extra half-holidays to the school and count against the individual in his petition for any privilege and appear in his terminal reports. Caning on the hands is prohibited and indeed should be made illegal. Caning elsewhere with a light cane only is permissible. It should be inflicted for a sufficient moral reason and not as a penalty for inferior work. The punishment is inflicted under the general authority of the headmasters by the masters and, in certain cases, school prefects. Right of appeal to the headmaster, if desired, is granted. Birching is reserved for punishment where some idea of special disgrace is to be attended. Written punishment is set for deficiency of work and consists of definite set work, not "lines." All such is entered on public sheets. All written punishments have to pass inspection by the headmaster or his delegate and bear stamp as passed for decent writing and general neatness before being negotiable with the undermasters. Returned lessons must be learnt by heart. Written punishments are done in extra-school at fixed times. All written punishment is done on special paper of conspicuous pattern. The paper may not be brought into preparation or class.

By the above methods punishment is rendered effective and consequently much lessened in amount. By inter-connexion between work and conduct-marks, which would take too long to state, but is simple and comprehensive in working, the control of discipline is greatly facilitated.

I am, Sirs, yours faithfully,

EDWIN J. TOYE, M.D. Lond., F.R.C.S. Eng. &c.,

Medical Officer of the United Services College,  
Westward Ho, Oct. 28th, 1901. Westward Ho.

## A QUESTION OF SPELLING.

*To the Editors of THE LANCET.*

SIRS,—The consistent endeavour of THE LANCET to maintain correctness in the use of English is well known, at least to those who have contributed to its pages. I was therefore not surprised to find in my lecture published in THE LANCET of Nov. 2nd, p. 1173, that the adjective which I had written "faradic" was changed by the printer to "faradaic." I do not object. I was formerly accustomed to write the word in the latter way, which seemed more in harmony with its derivation from the name Faraday and with "Voltaic"; but a reviewer took me to task for doing so, on the ground of pedantry. Such a charge is indifferent to me, but I thought it well to ask Professor Skeat's opinion on the form. His answer is of sufficient interest to be quoted entire:—"Analogy with 'Voltaic' requires the form 'Faradayic.' The names were Volta and Faraday. I can well understand that 'Faradaic' is more convenient than 'Faradayic,' but it cannot be said to be 'correct,' as his name was not Farada. In the same way Faradic is still worse, as his name was not Farad. But language does not go by what is etymologically 'correct.' Only that is really correct or right which common consent accepts and declares to be the standard. Your question cannot be decided till one or other of the forms prevails over and kills off the other. I should think it very probable that 'Faradic' will ultimately win simply because it is the shortest. Though it cannot be contended that it is 'correct,' it can be strongly urged that it is convenient, especially when you come to 'Faradisation.' 'Faradayisation' seems too much."

Professor Skeat's remarks bring out the fact that what I said in the lecture on the vitality of words is true also of spelling. Besides "faradisation" we have "faradism."

Both "faradisation" and "faradism" are certain to disappear before the more convenient forms without the "a." Hence I felt that the analogy would assuredly determine in the long run the use of "faradic" and not "faradaic," and therefore I have since employed the former. If we can discern forms which must survive in the struggle for existence we may be saved useless effort.

In connexion with the subject of spelling it is worth while to consider whether it is desirable to attempt to preserve the "w" in "whooping-cough," which dates only from about 1500. But if the "w" continues in use in the common word "whoop" the effort may fail, since the word is in such common use.—I am, Sirs, yours faithfully,

Nov. 2nd, 1901.

W. R. GOWERS.

\* \* We are grateful to Sir William Gowers for recognising our endeavour to maintain correctness in the use of English. We admit the force of Professor Skeat's remarks and have no objection to substitute "faradic" for "faradaic," but we shall continue to refuse to sanction the use in our columns of such barbarous impossibilities as, e.g., "try and" for "try to." Unfortunately they are becoming quite common even in literary quarters where we should not expect to see them.—ED. L.

## CHRISTMAS HAMPERS FOR CRIPPLED CHILDREN.

*To the Editors of THE LANCET.*

SIRS,—May I once more ask the courtesy of your columns to bring before your notice the annual entertainment, &c., to poor children in the Guildhall of the City of London, and the distribution of Christmas hampers to 4000 or 5000 little cripples. It is my privilege to have received from His Majesty the King a subscription with an accompanying letter from the Keeper of the Privy Purse, in which Sir Dighton Probyn says:—

I have the pleasure to inform you that His Majesty will be very happy to continue his support to the Christmas and New Year's entertainment which you so kindly organise every year for the benefit of the ragged-school children of London.

It is, therefore, with confidence that I again appeal to you to assist me in raising the necessary funds. The balance-sheet, signed by Mr. W. H. Pannell, C.C., chartered accountant, honorary auditor, shows that last year £1434 1s. 6d. was collected, but year by year the number of crippled children registered increases, the difficulty of selecting the recipients for the hamper becomes greater, whilst the prolongation of the war makes my task still harder. I am making a special effort to mark the advent of the coronation year by extending the hamper distribution, and to that end would gratefully receive for the Children's Fund donations large or small, to be addressed to me as heretofore at 69, Ludgate-hill, London, E.C.

I am, Sirs, yours faithfully,

W. P. TRELOAR,  
Alderman.

Ludgate-hill, E.C., Oct. 31st, 1901.

## THE HOME OFFICE ARBITRATION ON LEAD-POISONING.

*To the Editors of THE LANCET.*

SIRS.—I notice in THE LANCET of Oct. 26th a letter signed "A. Shadwell, M.D.," in which the writer says that "you are under some misapprehension" when you "speak of the manufacturers and workpeople as 'one side' and 'the other side' and imply that the Home Office is arbitrating between them, like the Board of Trade in industrial disputes," and he says that "the case is entirely different." May I ask where the difference lies? It is very evident to me that the writer has been misled by someone; the organised workers who have Lord James's permission to appear at the arbitration are certainly not on the side of the manufacturers in any sense. In eight or nine of the rules proposed we believe that they require strengthening; while Rule 6, which I believe was inserted at the request of employers, we feel we must object to so long as the Workmen's Compensation Act is not amended so as to include all cases of lead-poisoning. In reference to Rule 2, which is bound to provide a great deal of argument for and against on the part of the experts, our interests will be watched by counsel and we hope that some-

thing will be done to protect the health and lives of the lead-workers without in any way injuring the trade of the district. Dr. Shadwell would have been somewhere near the mark if he had said that the Home Office was between the two of us, the manufacturers saying that the proposed new rules are too stringent, while we (the workpeople) say that many of the rules are not stringent enough. Perhaps the best way of putting the case is to describe it as a three-cornered contest, in many portions of which the views of the operatives are directly antagonistic to the amendments of manufacturers.

I am, Sirs, yours very sincerely,  
N. PARKES,  
General Secretary, Printers' and Transferrers' Trade  
Protection Society.

Burslem, Staffs, Oct. 29th, 1901.

## EFFICIENT REVACCINATION.

To the Editors of THE LANCET.

SIRS,—Nothing will do so much harm to the credit of vaccination as the employment of inert or very feeble lymph. Complaints as to the quality of the lymph which ordinary practitioners are now able to get are very general, and it is not easy to see why the organisation of the Government supply of vaccine lymph should not be enlarged so to meet the demands of all practitioners, but till this is done other methods of improving the supply of trustworthy lymph may be considered. I venture to suggest two such methods. 1. The British Medical Association might employ inspectors of the commercial vaccine lymph manufactories. These inspectors should, of course, be familiar with the best methods employed in the Government laboratories here and in Germany and they should pay frequent and surprise visits to the manufactories and report at short intervals in the medical papers for the guidance of practitioners in need of lymph, grading the manufactories according to the excellence of the methods employed. 2. Reports as to the actual value of the various commercial lymphs as tested by experience might be published once a month in the medical papers, the name of the firm that supplied the lymph being given with each report. If a large number of general practitioners would take the trouble to send to THE LANCET and to the *British Medical Journal* month by month a record of all their vaccinations and revaccinations, mentioning for each case the source of the lymph used and the number of vesicles produced, the inducement to sell only active lymph would be materially increased. If Germany can efficiently revaccinate a population of 55,000,000 it ought not to be impossible to produce in England enough active lymph for our much smaller numbers.

I am, Sirs, yours faithfully,  
E. GARRETT ANDERSON.

Upper Berkeley street, W., Nov. 2nd, 1901.

## GUY'S WILL.

To the Editors of THE LANCET.

SIRS,—Reference to a copy of the first edition (1725) of Guy's will in my possession shows that the statement in the extract from the "Dictionary of National Biography" which appears in THE LANCET of Nov. 2nd, p. 1208, is slightly inaccurate; the four, six, or eight persons to be apprenticed or nursed ("or such like charitable deed") were "of the family of the Voughtons or Woods or proceeding therefrom." "Two or more such poor persons of the family of the Guys or proceeding therefrom" were to be similarly benefited. The Voughtons were Guy's cousins. The relationship to the testator of the Guys benefited under the will is not stated, but they received a smaller legacy than many of the other beneficiaries—viz., "Five Hundred Pounds a-piece." They were "Margaret Guy and Samuel Guy, the children of Samuel Guy, late of Egham in the county of Surrey."

My copy of the will contains a number of interesting manuscript notes, amongst them a statement that notices of Mr. Guy are to be found in "British Chronologist" (1789) under the year 1724, vol. ii., p. 94, and in Hughson's "London," vol. i., pp. 118, 119, and vol. iv., pp. 461, 462; also an alphabetical list in manuscript, dated Feb. 17th, 1744-5, of the "First and Present Presidents and Governors of Guy's Hospital." A marginal note, which bears evidence of having been written by a former owner of the book in 1835, states that the will is "now in prerog. office." I suppose this means the office of the Prerogative Court of

Canterbury. Is the original will now at Somerset House, or where? I am, Sirs, yours faithfully,

HERBERT R. SPENCER, M.D. Lond.

Harley-street, W., Nov. 2nd.

## RE SPASTIC PARAPLEGIA AND RETINITIS PIGMENTOSA: A CORRECTION.

To the Editors of THE LANCET.

SIRS,—With reference to the account of the proceedings of the Society for the Study of Disease in Children in THE LANCET of Nov. 2nd, p. 1200, the report of my remarks is misleading and may give rise to confusion. De Amicis (of Naples),<sup>1</sup> in a paper on the Relationship of Spastic Paraplegia (Little's disease) with Syphilis, gives the details of a case of spastic paraplegia in a boy, aged three years, whose father and mother had undoubtedly suffered from syphilis. I did not say that in de Amicis's case there was retinitis pigmentosa. I referred to it as in favour of the syphilitic origin of the case of spastic paraplegia with retinitis pigmentosa shown for Dr. Garrod, in which the eye condition was considered to be suggestive of syphilis.

I am, Sirs, yours faithfully,  
GEORGE PERNET.

Upper Gloucester-place, N.W., Nov. 2nd, 1901.

## ACUTE DILATATION OF THE STOMACH.

To the Editors of THE LANCET.

SIRS,—The letter of Dr. William Ewart in THE LANCET of Nov. 2nd, p. 1228, upon acute dilatation of the stomach has suggested another reference to the cases mentioned by me. It was not until I had left the post-mortem room, after examination of the more recent case, that I remembered having read of the theory that obstruction of the duodenum may be occasioned by pressure from the superior mesenteric artery, and the possibility of such a cause for the dilatation was, unfortunately, not definitely excluded. The duodenum was, however, less distended in the third part than in the first and second portions, and the jejunum, although not abnormally distended, was certainly not collapsed. In the other case mentioned in my letter it was also the first part of the duodenum which was most markedly distended.

The theory to which Dr. Ewart has drawn attention is interesting, but it is difficult to believe that so simple a form of obstruction can lead to a distension of the stomach which may bring the greater curvature as low as the pubes. Theories which attribute morbid conditions of the digestive tract to the influence of the nervous system are perhaps vague, but it is not easy to account for some of these conditions unless one believes that the nervous system has played some part in the causation. For example, I have seen in two instances extensive hæmorrhage into the coats of the small and large intestine extending without a break from the junction of the duodenum and the jejunum to the hepatic flexure of the colon. The fact that the transverse colon was unaffected showed that the whole of the area of the distribution of the superior mesenteric artery had not been involved in the hæmorrhage, and careful examination of the superior mesenteric artery and vein, together with their branches, revealed no trace of either embolus or thrombosis. The precisely similar distribution of the hæmorrhage in these two cases—a distribution which did not closely follow the area of supply of a blood-vessel—suggested that the nervous system had played some part in the causation of the bleeding. It also suggested that the jejunum and ileum possess an innervation which is presided over by centres which govern also the innervation of the cæcum and ascending colon. If this be true then the stomach and duodenum may also possess an innervation common to both, disturbance of which, while not primarily responsible for some morbid condition of these viscera, may occasionally determine its nature. In the two cases of acute dilatation of the stomach and duodenum mentioned by me the primary cause of the dilatation appears to have been the septicæmia which was present.

I am, Sirs, yours faithfully,  
Clifton, Bristol, Nov. 2nd, 1901. THEODORE FISHER.

<sup>1</sup> Archiv für Dermatologie und Syphilis, 1898, with bibliography.

## THE MENTAL FUNCTIONS OF THE BRAIN.

To the Editors of THE LANCET.

SIRS,—I have to thank you for the review of my book on "The Mental Functions of the Brain," which appeared in THE LANCET of Oct. 19th, p. 1051. If, as your reviewer says: "The work is a pretentious one and its claims are of an exceptional character," it seems to me a pity that he should have ignored one-third of it, containing some important statements, which—if they are not true—require immediate contradiction. It is stated in the book:

1. That there is not one man of scientific repute who has written anything which would indicate that he has examined Gall's chief work on the Anatomy and Physiology of the Nervous System. 2. That Gall's discoveries, anatomical and physiological, particularly the former, were ignored even by his most scientific followers, so that the world is ignorant of them. 3. That any one of the numerous anatomical discoveries, presented for the first time in this book, should have sufficed to bring Gall fame, but that there is not one text-book in the United Kingdom dealing with the anatomy of the brain which even mentions his name. 4. That his localisation theory has been misrepresented throughout the past century and most actively by those who found the principles of his doctrine useful but wished to hide the fact to escape the popular bias against phrenology. 5. That as a consequence of this foolish opposition for a whole century we still disagree even as regards such a fundamental localisation as that of the *intellect*. One school considers the frontal lobes to be the seat of the higher intellectual operations, another the occipital lobe, Rüdinger the upper part of the parietal lobe, Professor Cunningham<sup>1</sup> the lower part of the parietal lobe. Whereas Gall has collected for many of his investigations clinical, pathological, and experimental evidence, some of the recent observers advocate the method of looking for "protuberances." 6. There are many other important statements in the book. To give one more example, Gall has described the first genuine case of "aphasia" (see p. 230), yet we still give Broca the chief credit, and those who acknowledge Gall often speak of his discovery as a "mere happy guess."

By ignoring this part of the book your reviewer makes it appear as if I were reviving the phrenology of the self-styled "professor," and thus, unintentionally, excites the prejudices of the readers of his review against the book.

Now as to the "*several*" post-mortem records which I am supposed to quote in support of the theory that the lesion in irascible insanity and violent mania is to be found in the temporal lobe. My "*several*" records number 350, the majority of them being injuries to the temporal area, localised tumours, and circumscribed inflammatory disorder. The minority are cases in which a lesion took place in some adjoining part, but involved the temporal lobe by extension. Your reviewer selected one of the latter cases as a "typical instance of my method of stating facts and deducing conclusions." Unfortunately this is one of the three cases (out of 800) which got into the book by some error and was marked by me for "revision" or "omission" for the second edition. I acknowledge my responsibility, but to describe this case as typical of the 350 quoted in favour of the localisation of irascible insanity is clearly a misrepresentation. I have had to quote my cases as I found them in the clinical records, foreign cases having been translated and the British cases left unaltered except for the condensation where necessary, so that in most cases the authors themselves are responsible for their records.

However opinions may vary as to the value of the deductions at which I have arrived your reviewer is the first not to acknowledge the vast amount of material which I have collected in this book for the benefit of future investigators; and considering the absence of positive knowledge as regards the mental functions of the cortex, the growth of the brain, the significance of its size and weight, investigators can little afford to sneer at an honest attempt at an elucidation of these problems, such as I have made.

I am, Sirs, yours faithfully,

London, Oct. 21st, 1901. BERNARD HOLLANDER, M.D.

<sup>1</sup> See Presidential Address, British Association (Anthropological Section), Glasgow, September, 1901.

## THE ETHICS OF THE PUBLIC VACCINATOR.

To the Editors of THE LANCET.

SIRS,—Owing to the complaints one hears upon all sides as to the elastic manner in which some of the public vaccinators are interpreting the duties of their office I have ventured to submit to you a series of questions which are not without interest to general practitioners at the present time.

1. Should a public vaccinator who is appointed to a definite district vaccinate anyone who comes to his house, irrespective of where they reside, or should he find out their address and refer them to the public vaccinator of that district?

2. Can a public vaccinator charge the authorities for work done by his qualified assistants to whom he pays a salary of three or four guineas a week?

3. Should a public vaccinator interview the principals of large firms where he knows there is a regular medical attendant and induce them to allow him to vaccinate their employés under the plea of gratuitous operation?

4. In the event of his vaccinating a large staff should he ascertain whether any of the members who live at home would prefer to be vaccinated by their own private medical attendants?

5. If when making a house-to-house inspection a public vaccinator finds that certain of the inmates intend to be vaccinated by their own medical men, is he justified in persuading them to be operated upon by himself on the grounds that he will do so free of charge?

6. Is it a professional act for a public vaccinator to attract children by means of chocolates, apples, &c.?

Will you kindly publish the fees which are now being paid per head to public vaccinators in the different districts of the county of London. The medical profession will have to pay their share of the vaccination rate, and this in some cases will mean paying for the vaccination of our own patients.

I am, Sirs, yours faithfully,

Nov. 4th, 1901.

GENERAL PRACTITIONER.

## A SANITARY OUTRAGE.

To the Editors of THE LANCET.

SIRS,—Will it be believed that the Westminster City Council erected two stands for themselves and their friends in the Green Park opposite Devonshire House over the two public urinals which exist at that spot, necessitating the closing of these necessary conveniences for the whole of Friday and Saturday last? Their friends doubtless appreciated the invitation to lodge in the W.C. district and, I hope, enjoyed their visit, but I should like to know whether the Westminster Council had the right to interfere with the comfort of thousands who were thus forced to relieve the wants of nature in the neighbouring park.

I am, Sirs, yours faithfully,

Nov. 4th, 1901.

AN OLD PRIVY COUNCILLOR.

## NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

*The Plague Epidemic.—Plague Administration in Bombay City.—The Famine and the Rains.—Deaths from Wild Animals.—The Victoria Scholarship Fund for Training Native Midwives.—Cocaine-eating in Bengal.*

THE mortality from plague throughout India is still increasing. The outbreaks in the Belgaum and Dharwar districts of the Bombay Presidency have further developed and account for the greater number of deaths. The disease, moreover, is spreading in the Punjab and at Poona. For the latter health camps have again been opened. Since the recrudescence which commenced in August 112 cases have been reported. In the Punjab the cases have increased during the past week from 181 to 301, and 15 deaths are reported from the province of Jammu. In Bombay city the deaths from plague are somewhat fewer, and in Calcutta the number fluctuates week by week between 12 and 20.

A great change is in course of operation in the plague administration of Bombay city. The Commissioner still remains the head of the department, but immediate

orders will now issue from the health officer. The same policy will be pursued, but it is hoped that plague will be treated under the Municipal Act as an ordinary epidemic disease and as such will be properly dealt with by the Health Department to the exclusion of any outside interference. This is as it should have been treated from the very first. The same arrangement would be equally applicable to Calcutta. In Bombay an army officer has hitherto controlled operations. Now that all heroic measures have been suspended a separate organisation for plague is not wanted. There will also be a considerable saving in expense—a matter of no small importance for other places as well as for Bombay.

It is hardly realised at home that the famine still continues and that there are about 300,000 people receiving relief. The past season has not been everywhere favourable. Baluchistan has had only a tenth of its normal rainfall, Gujarat only one-third, Central India and Rajputana about a half, while parts of the Deccan are 20 per cent. behind.

The mortality from wild animals in India is another matter not fully recognised. Last year it was very large. Snake-bites are reported as having caused 22,393 deaths and bites of leopards and jackals 980 deaths. Tigers killed 943 people, elephants 36, bears 97, and wolves 424. Parts of Bengal suffer most from tigers, one man-eating tiger having caused 47 deaths. In addition to human beings there were no less than 81,890 head of cattle killed. It is satisfactory to learn that 17,250 wild animals were destroyed besides 88,232 snakes.

The Victoria Scholarship Fund for training native midwives in India continues to receive widespread support and up to the present time over five lakhs of rupees have been subscribed. Judging from the death lists issued in some of the cities the total mortality of women in childbed must be enormous, and it is probably as great, if not greater, in the rural districts. Crass ignorance and filthy habits seem to be the causes of this high mortality.

The habit of cocaine-eating seems to have spread extensively among the natives of Bengal. The ordinary *pan*-sellers are the chief distributors. It is sold in small paper packets containing either half a grain or one grain which are obtained for half or one anna respectively. It is impossible to say how much is consumed by any one individual, but several grains a day have been confessed to. The sense of feeling well is followed by depression, but the habit appears to be peculiarly seductive, and once commenced is with the greatest difficulty abandoned. A blackening of the teeth is said to be caused by cocaine-eating and the blackening is thought to be characteristic. It is said to be most marked in the lower teeth and on the inner or posterior surface, and to be quite different from dirt or the staining of tobacco. The general symptoms are those of cachexia with a sallow look, sunken eyes, and emaciation.

Oct. 19th.

## THE LEGAL STATUS OF MIDWIVES.

(FROM A LEGAL CORRESPONDENT.)

[OUR readers have had so many occasions of hearing our views on the midwives question that they will know how far we can go with the opinions expressed in the following article. But it is well that they should read the public view of the question temperately and logically expressed.]

Judging from the correspondence in the medical press and the addresses of some of the candidates for election as Direct Representatives on the General Medical Council much misconception prevails amongst medical practitioners as to the existing legal status of midwives. Mr. George Brown, for instance, who is seeking re-election to the Council, having taken full credit in his address for his opposition to the Midwives Bill of last session, proceeds thus: "Much will depend upon the votes recorded in this election, and you may rely upon me that my opposition to legalising midwives as independent practitioners will be as keen as ever, and I should like both midwives and all unqualified practitioners made legally responsible for any damage they may cause to mother or child or any other person." Mr. Brown's colleague, Mr. George Jackson, having referred in his address to the action he took at the last election to the Council, goes on to say: "I am

now as then opposed to the registration of midwives, the creation of an inferior order of practitioners." These two candidates for the honour of directly representing their profession on the General Medical Council have apparently yet to learn that midwives are fully "legalised as independent practitioners," that "both midwives and all unqualified practitioners" are "legally responsible for any damage they may cause to mother or child or any other person," and that this particular "creation of an inferior order of practitioners" was accomplished several centuries ago. When the order of midwives was created it would be as difficult as useless to discover, but we do know that here in England some four centuries ago the bishops, who were then the licensing authorities for physicians and surgeons, licensed midwives also. They continued to license surgeons and midwives down to the middle of the eighteenth century. The College of Physicians of London about that time took over from the bishops the charge of examining and admitting midwives to practise, a charge which they renounced some 80 years ago. Since that time any person who chooses may undertake the important duties of midwife. No test of competency for the office is imposed by any responsible authority and so the public are left to such protection as the common law affords against the *malpraxis* of uninstructed practitioners.

By the common law of England a person is entitled to practise in any profession or business which he thinks fit to adopt, but he practises at his peril—that is to say, if he is grossly ignorant of the profession or business of which he holds himself out to be a master he is liable to be punished by fine or imprisonment as guilty of a misdemeanour, whilst the injury suffered by any person from such ignorant practice is a private wrong for which damages are recoverable. In the case of one undertaking the office of a midwife, as in that of a registered medical practitioner, the law implies not that she will bring her patient safely through the perils of childbirth, but that she will use reasonable professional skill and due diligence to that end (*Lanphier v. Phippos*, 8 C. & P. 475). When, however, the practice of a profession is of such a nature that the incompetency of the practitioner is always attended with dangerous consequences and not infrequently with irremediable or even fatal consequences the common law protection is plainly inadequate. Hence the necessity of prescribing by statute the qualifications of those who enter such profession. This has been done in the case of the medical profession by the Medical Acts of 1858 and 1886; and chemists and druggists have been brought under similar statutory control. That midwives have not yet been brought under any statutory control, notwithstanding the dangerous nature of their duties, is, I consider, a serious defect in medical organisation. The Medical Act of 1886 which made it obligatory on all candidates for medical registration that they should pass a qualifying examination in midwifery of such a standard of proficiency as to guarantee the possession of such knowledge and skill as is requisite for efficient practice made no provision for regulating the business of midwives and bringing it under the supervision of the General Medical Council or some other body created *ad hoc*. This omission remains to be repaired. Although at the bottom of the medical hierarchy the midwife cannot be ignored. Unlike the unregistered medical practitioner she can recover reasonable remuneration for her services in a court of law. Such services have been held in a recent case to be "medical or surgical assistance" within the meaning of that phrase in the Medical Relief Disqualification Removal Act, 1885 (48 & 49 Vict., c. 46), (*Honeybone v. Hambridge*, 18 Q.B.D. 418).

It must be confessed that little progress has been made in recent years towards the settlement of the midwives question. The want of an examining and licensing authority for midwives has been long felt by a section at least of the medical profession. In a learned treatise on medical jurisprudence published in 1823, the joint work of an eminent Fellow of the College of Physicians and of a distinguished member of the bar,<sup>1</sup> there is this footnote to the case of *Dr. Letch v. College of Physicians*: "It is said that the College [of Physicians] have determined not to interfere for the future with the licensing of midwives; the policy of this resolution is very questionable, for the examination and licensing of persons in all branches of medicine is a public duty imposed upon them which they are not at liberty to abandon or execute at their pleasure. It may be urged that

<sup>1</sup> By J. A. Paris, M.D., F.R.S., F.L.S., F.R.C.P., and J. S. M. Fonblanque, Barrister-at-law.

this branch is rather surgery than physic, but as the College have once assumed the jurisdiction it is doubtful whether they ought to relinquish it. The surgeons might also disavow their obstetric brethren and then the matter must revert as of old to the bishops who cannot be supposed to be the most competent judges of the necessary qualifications." Recurring to the subject under the head of "Midwifery" the learned authors observe: "We have before noticed that there is some probability that both the College of Physicians and the College of Surgeons will decline all future interference with this branch. If so it will be necessary that some new authority should be instituted for the purpose of examining and licensing candidates for practice; the duty to be performed is by far too dangerous and delicate to be left in the hands of any who would assume it, yet such is at present the case, and not without fatal examples of the errors and imperfections of our lego-medical system." Referring to the voluntary organisations of their day for the training of midwives, they add: "We do not, of course, include in this censure the private institutions for the instruction of midwives in which the want of a public provision is endeavoured to be compensated; but the operation of such societies must be of necessity very limited and utterly inadequate not only to the demands of the empire, but to the magnitude of the metropolis."

This might very well be written to-day, so little has it lost in force by the efflux of time. The licensing of midwives is still the *quæstio vexata* it was when these learned authors wrote. There is no justification for it remaining so. The General Medical Council has been created since then and might well have its jurisdiction extended so as to include the supervision of midwives. There is no insuperable difficulty in framing such a definition of a midwife's office as will exclude the possibility of her infringing on the sphere of the medical practitioner. An ignorant untrained midwife is far more likely to embark on rash and reckless treatment of her patient than one who knows from the training which she has received when the case has passed the limit of her skill and should be attended by a medical practitioner.

## SANITATION AT EDINBURGH.

(FROM OUR SPECIAL SANITARY COMMISSIONER.)

(Concluded from p. 1160.)

WHILE the corporation have displayed so much public spirit and enterprise in creating what may be described as a palatial fever or isolation hospital, private charity and enterprise have conferred on Edinburgh the honour of being the first town in Scotland which has attempted to establish a sanatorium for the outdoor treatment of pulmonary tuberculosis. The Victoria Hospital for the Treatment of Consumption was opened on March 31st, 1900. In Scotland some 7000 deaths are annually attributed to this disease and it is reckoned that the mortality from this cause is equal to about 500 deaths annually among the inhabitants of Edinburgh. To ascertain the number of persons actually suffering from this disease these figures may be multiplied by 10. In his last annual report the medical officer of health, Sir Henry Littlejohn, states that phthisis caused 548 deaths in 1900 in Edinburgh, and there were 270 deaths from other forms of tuberculosis. In dealing with this scourge Sir Henry Littlejohn follows the lead of the continental sanitary reformers and insists that the authorities should exercise all their influence to prevent expectoration in the streets and on public conveyances. He also points out that as the system of flats prevails in Edinburgh the common staircase is a source of danger. This remark, it seems to me, applies more to the better-class houses than to the new or model artisans' dwellings. In the latter the staircases are generally exposed to the open air and are not protected by windows. In some high-class houses let out in flats I have found the staircase very dark and the windows generally closed. Such staircases should, therefore, be kept scrupulously clean so that the dust from them should not be conveyed into the apartments. The staff of sanitary inspectors have received instructions in regard to this matter, but it does not seem as if anything effective has been accomplished. To expectorate in a dark, badly ventilated, and not very clean staircase may amount to laying on phthisis just as

water or gas is laid on to a house. The Edinburgh Health Committee have issued upwards of 30,000 cards warning the inhabitants of the danger and indicating a few simple precautions. The railway companies have also been approached and the municipal tramways servants have instructions to prevent spitting on the floor of these vehicles.

As with the isolation of infectious fever cases, so also in the treatment of phthisis, a double advantage is secured. Not only does the patient benefit by a better chance of recovery, but there is less danger of his spreading his complaint to others. The system of house accommodation in Edinburgh, together with the climate, afford but small prospect of recovery. According to Sir Henry Littlejohn the principal hope rests in the early recognition of the disease and immediate departure for foreign countries and for high, bracing plateaux. But this is only possible with the wealthy. Sir Henry Littlejohn, however, raises the question as to whether the town council would be prepared to incur the expense of sending abroad experimentally some hundred or more carefully selected patients from among the poor, but he thinks that our colonies might object to receive these damaged lives. For my part, I would suggest that it is not absolutely necessary to go to the colonies. In Switzerland and on the Riviera there are many places which depend for their very existence on the presence of a large number of phthisical patients. There is no reason why these countries should object to hospitals established by foreigners with foreign money any more than they do to their own similar institutions. Such action should not be opposed, for it would be an excellent advertisement for the whole neighbourhood. The principal difficulty is a question of finance, and this would be met if the number of definite cures obtained was such as to constitute a considerable relief to the rates and to the charities of the town or district that ventured upon so bold an enterprise.

Sir Henry Littlejohn also raises his voice on behalf of the respectable citizen who has earned his living and has paid his taxes regularly, but who, having contracted phthisis, is dismissed by his employer. Should such a man be ultimately driven to the workhouse or should the town council provide some resting place "where, though the case is hopeless, every effort would be made by medical skill and comfort to afford ease of mind and body, while the family, relieved from the cares of nursing and the expense of maintenance of an exacting invalid, would be able to make fresh arrangements for keeping the household together and fighting the battle of life." Putting the claims of humanity aside and considering this proposal from the mere utilitarian point of view, the carrying out of some such suggestion might, in the long run, prove the cheapest. It might prevent whole families from sinking into the pauper ranks and would lessen the risk of spreading the disease by doing away with a centre of contagion. Sir Henry Littlejohn has also come to the conclusion that compulsory notification of consumption should be enforced. He claims that Edinburgh was first among the large towns to promote, in 1879, a private Bill for the compulsory notification of infectious diseases. This spirited action so helped to spread education on the subject that, in 1889, the Government was able to pass a similar Act applying the principle of notification to the whole country; and now it is urged that Edinburgh should again take the lead by having this principle extended to cases of pulmonary consumption.

Apart from such endeavours to prevent the spread of phthisis, Edinburgh, as already mentioned, has taken the lead, so far as Scotland is concerned, in applying the most recent methods to effect the cure of phthisis. The promoters and patrons of the Victoria Hospital for the Treatment of Consumption in their last annual report maintain that thousands of persons unnecessarily lose their lives and slowly sink into a state of physical and financial bankruptcy because there are not any means available by which they can obtain proper treatment. This is the more deplorable as the record of sanatoriums in all parts of the world show that cures can be effected by the open-air system of treatment. Even now it is only on a very small scale that Edinburgh has found the means of practically demonstrating what can be done. Though the first hospital in Scotland for the outdoor treatment of phthisis claims that it is not a local but a national institution, it only possesses 23 beds. Already for one patient admitted there are at least 10 applicants. Fortunately the grounds secured are sufficiently spacious for other buildings to be erected. A beautiful park which slopes towards the south has been obtained and the residence has

been converted into a hospital. Already and during the first three months an annex has been built and furnished, holding eight patients, for the small cost of £800. Every £1000 obtained will provide accommodation for from eight to 10 more patients. So great was the demand that a system of visiting patients had to be organised. The latter do not sleep at the hospital, but they remain there all the day, profit by the treatment, and enjoy the hospitality of the institution. Of course this is not so satisfactory, for the *régime* cannot be properly carried out at night by the patients in their own homes.

From March, 1900, to March, 1901, there were 115 indoor patients. With but few exceptions all those who resided in the hospital progressed satisfactorily and "a considerable proportion have, on discharge, been able to resume regular work." These latter are not lost sight of but are encouraged to report themselves from time to time. The outdoor patients are given printed instructions concerning the treatment and prevention of the disease and thus useful educational work has been done. The bedridden patients are visited in their own homes by the outdoor medical officer and he always makes a point of instructing the friends and relatives how to limit the spread of the disease. Then there is a Samaritan Committee giving financial help where there is need.

When I visited this hospital it was the morning following a boisterous night. In one of the rooms I found a large pool of water on the floor. This was caused by the rain which had been blown in through the window left wide open in spite of the patients who had slept in the room. Now the patients were all out in the gardens sitting over the wet grass and wherever they could catch the fleeting sunbeams. Several of them had bared their chests to the sun and the skin was brown through constant exposure. Some of the patients had slept out all night in wooden structures shaped like Dutch ovens. These can be moved so that their backs are against the wind and thus the rain does not fall on the beds, which on the front side are in no wise sheltered. Dr. R. W. Philip, physician to the hospital, showed me a number of charts which set forth the wonderful and rapid reduction of temperature which follows on the outdoor treatment. Within two or three weeks the night sweating also, and almost invariably, disappears and this without the use of any drugs. The loathing for food is replaced by a greedy appetite. The weight of the patient increases, his colour improves, and cough and expectoration become less and less frequent. Dr. Philip further states that there is no limit to the application of the method "provided there is a wise discrimination in respect to details." The results vary in degree; improvement is the rule but a permanent cure can only be expected in cases of pulmonary tuberculosis which are taken in hand sufficiently early. Perhaps the most remarkable fact about this hospital is its successful establishment in such an unlikely climate as that of Edinburgh. If the outdoor treatment is feasible in such bleak and northern latitudes, how much more effective might it become in sunny latitudes where the climate would be a natural ally to the methods employed.

Apart from these specific and direct endeavours to reduce the prevalence of pulmonary tuberculosis, it is notorious that general sanitary improvements have greatly mitigated the fatal effects of this disease. Prominent among such reforms is that of the better housing of the poor. In the city of Edinburgh this question has not been neglected. £150,000 have already been spent under the Housing of the Working Classes Act. Whether this money has been wisely spent is another question. In any case some of the city fathers freely recognise that grave mistakes have been made. Certain it is that the worst portion of the sore has not been touched. It has been argued that the houses put up by the corporation were too good. Slums were demolished but the inhabitants of these slums have not been re-housed. As is usually the case a much better class of tenants came and inhabited the model dwellings erected on the sites of the ancient slums. At present it seems as if no attempt is made to deal with the residuum. The lowest class object to the corporation tenements on the ground that they are too bright, too clean, too good, and that they have not furniture decent enough to put in them. More important than these objections is the fact that they do not want to live clean, decent, orderly lives and dread the control which the municipal authorities might attempt to exercise over them. In this respect the Edinburgh Corporation have hit upon an expedient which, just because it gives excellent

results with a more respectable class of tenants, is well calculated to drive away the disreputable residuum. Instead of collecting the rents themselves or appointing a factor to do so this work has been intrusted to a philanthropic society. Ladies belonging to the Edinburgh Social Union receive a commission of 5 per cent. for collecting the rents; but they do much more than merely collect the rents. They strive to become the friends and advisers of the tenants, helping them by timely suggestions to keep their homes clean, tidy, and healthy. It has been my privilege to visit several of these municipal tenements and the order that reigned within was certainly superior to the general run of habitations frequented by the same class of tenants. But all this leads to the institution of a process of selection and thus the municipal housing scheme has resulted in help being given to decent labouring men who are honestly striving to do their best with the slender means which they possess. Of course, this in a sense is very satisfactory, but it does not meet the great sanitary problem created by the thriftless disorderly residuum whose overcrowded, dirty, unhealthy homes are a perpetual menace to the health of the community. This, the lowest, section of the population is still left to occupy the old houses which have degenerated into tenement dwellings.

In dealing with this most difficult problem the town of Edinburgh possesses special advantages. It has under local Acts unlimited borrowing powers. Strange to say the only limit imposed is in regard to electric lighting. Money for this latter purpose cannot be borrowed except with the assent of the Secretary of State for Scotland. Further, as there is no limit to the powers of assessment which the corporation possess they are able to borrow at a cheaper rate. On the other hand, the local Act enforces the repayment of moneys borrowed for housing schemes within a lapse of 30 years. The result is that these schemes cannot be made to repay the cost in so short a time and therefore a part of the expenditure has to be raised out of the rates. But as yet this has only involved the citizens of Edinburgh in an extra rate of a half-penny in the pound. The gross rental of the four schemes that are now completed is £2066. The general and working expenses, the taxation, repairs, and maintenance, are set down at £512 annually and the interest on the loan amounts to £1350 and the sinking fund to £1530. These make a total of £3392, and, deducting the income, an annual deficit of £1326 is shown, which has to be charged on the rates. No ground-rent has to be paid because the ground belongs to the old borough of Edinburgh. By this it will be seen that the community is paying to-day for the creation of a property which at the end of the 30 years will be profitable. All this, however, does not meet the most urgent need. Taking the annual report for 1899 drawn up by Mr. John Cooper, the borough engineer, it will be found that this deficiency is frankly acknowledged. He admits the improvement effected in the sanitary condition of the new houses, but he adds that "people cannot live on sanitary conditions alone, however superior." The labouring man, if in work all the year round, might earn a maximum income of 24s. a week. It would be still more than the average if his income was estimated at 20s. a week and it would not be prudent to expect more than a tenth of this, or 2s. a week, for rent. In actual practice, however, a regular payment of 2s. a week for rent cannot, Mr. Cooper says, "be considered as at all reliable." There are, he insists, many respectable families whose incomes are very precarious and fall considerably below £1 a week. The rentals of the model dwellings provided vary from £5 to £10 10s. per annum, or about from 2s. to 4s. a week. They are, therefore, better suited for the skilled artisan than for the labourer. To reduce the cost Mr. Cooper suggests that, in dealing with a slum area, the powers conferred by the Housing of the Working Classes Act are not designed to enable house factors and owners of property to allow dilapidations and insanitary conditions in the hope that the local authority will ultimately be compelled to buy up such property at from eight to 12 years' purchase for the purpose of pulling it down. Such a course would defeat the purpose of the Act. When a property is really uninhabitable the compensation paid should be based on the value of the building materials, less the cost of removal, and the site occupied. This and not more, the borough engineer insists, should be paid for such insanitary houses. Even on these conditions the land in central positions would be too expensive and the Corporation of Edinburgh are seriously considering whether they should not avail themselves of Part III. of the Housing of the Working

Classes Act to purchase unoccupied suburban areas and run cheap means of transit to these localities. There are still some 2000 acres of land within Edinburgh, exclusive of parks and gardens, which have not been built upon, and recent legislation has conferred the power to purchase outside the municipal boundaries. Thus, taking all these circumstances under consideration, it may be said that the Corporation of Edinburgh have barely passed the threshold of the great question which is perplexing the municipalities of all the great and populous centres.

In regard to other sanitary work it may be said that the registration of plumbers combined with active sanitary inspection have greatly contributed to improve the domestic drainage of private houses. The public sewers, however, are probably in need of considerable improvements. Some sewers are well graded, consist of pipes in which the sewage runs freely, and few if any deposits are made. Others, on the contrary, are stone-built, rough, and likely to retain heavy substances, though, on the whole, there are but few complaints as to bad odours. Nevertheless, it seems evident that the system of ventilation, or the traps, are not always efficient. Mr. Cooper relates that some refuse from an oil-gas manufactory found its way into the St. Cuthbert's-lane sewer and thence into the Nor' Loch outlet sewer. It came in contact with some heated liquid and a strong smell of paraffin resulted. This was not confined to the sewers and sewer ventilators, but very rapidly invaded the cellars and front areas of a great number of houses—a fact which showed that many connexions between private houses and the sewers were defective. Improvements were consequently effected here and there which might have been neglected but for the accident that rendered their necessity so evident. Considering that Edinburgh is a very old town and that the sewers have been built at different epochs, some being very ancient, there are probably many discrepancies. It would be well, therefore, if all the sewers could be examined, a complete survey of the whole system taken, and a detailed report given. Doubtless this will be done at no very distant date. Though there still remains much to engage the activities of sanitary reformers, Edinburgh has acquired a prominent place among the towns that have set a good example.

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

### *Precautions against Plague.*

ALTHOUGH no cases of plague have, so far as is known, occurred in Manchester, it is satisfactory to learn that the authorities are taking proper precautions. Dr. J. Niven has issued a circular to the medical practitioners in which he draws attention, as a matter of the gravest kind, to the great number of rats in Manchester, as in other large cities, and to the condition of the middens and ashpits. He also says that increased attention should be given to the cleansing of dirty houses and that the powers possessed by the corporation should be freely used to enforce it. As a matter of precaution plague should be added to the list of notifiable diseases, to which also in the actual presence of the disease it would be desirable to add pneumonia. Mr. C. H. Tattersall has also issued a somewhat similar circular to the medical practitioners of Salford. Dr. Pringle, medical officer of health of the port of Manchester, read a special report yesterday to the port sanitary authority in which he said that from the preventive point of view rats presented much greater difficulty than man. By the Cholera Regulations of 1897 Liverpool was bound to inspect all ships coming from foreign infected ports, to isolate any cases of plague discovered, and to disinfect the ships. Dr. E. W. Hope, medical officer of health of Liverpool, has assured Dr. Pringle that Manchester-bound ships from infected ports should receive every attention. All ships from infected ports are now to be moored at a certain distance from the dock walls and the cables are to be provided with rat-guards. He recommended fumigation with sulphur for killing the rats on board ship. In order to supervise the barges and flats he said that another inspector should be appointed, and that the length of the port (36 miles) rendered the acquisition of a steam launch almost a necessity. There is no doubt that the port authority are quite alive to the importance of preventive measures against one of the "most terrible scourges" to

which man is liable, and that Dr. Pringle's suggestions will be promptly carried out.

### *Water-Supply.*

With the long-continued deficiency of rainfall over the Longdendale gathering area the water-supply of Manchester has been gradually lessening, and yesterday there was only enough water for 20 days. The weather, of course, is uncertain, and it may change at any time, but it looks as if there would be a continuance—when outside the Manchester smoke and fog—of fine bright days and nights. Thirlmere can only give the 8,000,000 gallons daily brought by one pipe, though there is plenty and to spare in the lake, and so it seems to mock us as Tantalus was mocked.

### *Unprotected Fires.*

At an inquest held at Bury last night on the body of a child who died from burns the coroner said that the Coroners' Society had been collecting statistics which showed that "something like 75 per cent. of the burning cases in relation to children had been caused by the fire-grates being unprotected." He fancied that it would not be long before parents would be compelled to guard their fires. For the children's sake it is to be hoped that he is not too sanguine.

### *Health Teaching in Board Schools.*

On Oct. 4th a deputation from the Manchester and Salford Sanitary Association attempted to induce the Manchester School Board "to consider the advisability of teaching hygiene in its schools." Dr. Sawers Scott acknowledged the work of the corporation in supplying good water, baths, and wash-houses, in widening the air space of houses, and in the matter of sewage disposal. But all these things were useless unless the people were taught the value of cleanliness and the danger of sleeping where the windows and means of ventilation were obstinately kept closed. The association had for many years tried lectures on hygiene, "but had not reached the right people." He was supported by Mr. Horsfall, by Dr. Hewitt (who spoke of the ignorance of young mothers as to the feeding of children), and by Dr. R. B. Wild, who called attention to the prevalence of ringworm and the increase of skin disease. Dr. Emrys Jones referred to the defective eyesight of many school-children leading to their being set down as stupid and being punished. He stated that the method adopted in Salford of testing the eyesight of the children had had good results. Dr. A. W. W. Lea said that in New York and other cities the daily medical inspection of the schools and scholars had resulted in a great diminution of measles, scarlet fever, diphtheria, and skin affections. The chairman thanked the deputation for the clear way in which various points had been put and said that "if the Board had been guilty of any oversight in the past it had been through want of fresh information." But surely it is the duty of school boards to seek information and not to wait the advent of deputations from such voluntary bodies as the Sanitary Association.

Nov. 5th.

## WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

### *Herefordshire Medical Association.*

THE annual meeting of this society was held at Hereford on Oct. 30th, Mr. H. Cecil Moore being in the chair. Dr. Gerald R. Leighton read a paper upon Snake-bite in England in the course of which he said that any case of snake-bite in this country which shows signs of venom symptoms if due to a British species must be the bite of an adder (*Vipera berus*). The bite almost always occurs from the person bitten being unaware of the proximity of the adder, which is doing its best to escape observation. The hand or the ankle is the part usually affected, as the bite generally occurs through the person picking up something off the ground near to the reptile or through treading on, or near, it. The resulting symptoms depend more upon the actual amount of venom injected than upon such circumstances as the heat of the day, or the state of health or the age of the patient. Death may result very rapidly from heart failure when the dose of venom is sufficiently large. In other cases the symptoms usually seen are pain at the seat of puncture and extending up the limb, with lymphangitis, symptoms of local and general blood-poisoning, vomiting, photophobia, and nervous symptoms. If the

patient survives three days recovery is usual. As the venom of the adder, unlike that of the cobra, does not pass through animal membrane, the wound may be sucked with impunity. There is no latent period in adder-bite as in cobra-poisoning, death being rapid and symptoms instantaneous in fatal cases. Dr. Leighton considers that in the absence of an antitoxin no definite treatment can be adopted beyond such as is suggested by the symptoms as they arise.

*West of England and South Wales Branch of the Incorporated Society of Medical Officers of Health.*

At the annual meeting of the West of England and South Wales Branch of the Incorporated Society of Medical Officers of Health, held at Bristol on Oct. 31st, Dr. J. Howard-Jones of Newport was elected secretary. Mr. J. C. Heaven of Bristol, who has been secretary for the past seven years, is the president for the present year, and in his presidential address dealt with the question of Prevention of Disease, elaborating and emphasising the dictum of Professor Koch at the British Congress on Tuberculosis that it is a great blunder to treat pestilences uniformly. A large portion of the address was occupied in discussing the measures which should be taken in order to prevent the spread of diphtheria, and special attention was drawn to the necessity for the competent inspection of contacts who should have not only their throats but their nasal cavities examined for the purpose of ascertaining whether they are free from Klebs-Löffler bacilli. The frequency of nasal diphtheria without obvious symptoms is only now becoming recognised, and this lack of recognition is doubtless due to the absence in many districts of properly equipped public health laboratories. That the condition does exist is manifest from two instances related by Mr. Heaven. Owing to an outbreak of diphtheria in a Bristol school he examined the children in attendance and found among them 15 cases of diphtheria, 11 of which were nasal without constitutional symptoms, unrecognised and able to go about and to spread the disease freely. After the exclusion of the infected children from the school and its closure for the Easter holidays the outbreak ceased. In another school among 12 children examined, in seven of them bacilli were found in the nose only, in three in the throat only, and in two both in the throat and nose. Mr. Heaven is of opinion that the increase of diphtheria in towns and the failure to control its spread may be largely attributed to the non-recognition of the facts that diphtheria is capable of assuming every grade of severity, that it is the mild, unrecognised cases that are chiefly responsible for the spread of the disease, and that it is not by any means only in the throat that unrecognised cases occur. There are unfortunately many opportunities in other parts of the country for dealing with outbreaks of diphtheria upon the lines laid down by Mr. Heaven who is to be congratulated upon the energy and persistence which he has displayed to secure the isolation of "carriers" of the disease.

*Prevention of Consumption.*

It was stated in THE LANCET of Oct. 26th, p. 1160, that a sub-committee of the Bath Board of Guardians had been appointed to confer with the Bristol Guardians as to the practicability of the two boards jointly providing an institution for the treatment of phthisical patients. The result of the conference having been reported to the Bath board on Oct. 30th, it was decided not to combine with the Bristol board, but to treat the Bath patients in a building adjoining the workhouse, when it is estimated that if the average number of patients under treatment is 10 the cost per patient will be 13s. 3d. per week, or reduced to 11s. per week if the average number is 20. The Herefordshire Medical Association have appointed a sub-committee to consider the desirability of forming a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis.

*Pontypridd Workhouse.*

Notwithstanding several communications from the Local Government Board and the recommendations of their own medical officer (Mr. Howard Davies) the Pontypridd Board of Guardians, which for Poor-law purposes has charge of a population of 204,000 persons, has for several years declined to provide an adequate staff of trained nurses in the workhouse infirmary. At the end of last September Mr. Davies reported upon the necessity for taking immediate steps to remedy this deficiency, and although attempts have since been made to postpone indefinitely a settlement of the question this has been prevented by the

persistence of the medical members of the board. There are on an average about 50 patients in the infirmary who are cared for by only one trained nurse. When the board decided recently to appoint a second nurse it was discovered that there were no quarters available for her accommodation. The medical officer then advised that the existing tramp wards should be removed and replaced by suitable nurses' quarters. The present accommodation for tramps could hardly be worse than it is, for every applicant has to go into the main entrance hall of the workhouse so that it is almost impossible to prevent contact with the inmates; indeed, upon three occasions in recent years small-pox has found its way from the tramp wards into the workhouse. The removal of the tramp wards from the precincts of the workhouse is therefore an urgent necessity, even if the site of the wards were not wanted, as it certainly is, for other and more suitable purposes.

*Epileptic Colony for Wales.*

In his recently issued annual report to the Local Government Board, Mr. F. T. Bircham, the general inspector for Wales and Monmouthshire, expresses the opinion that Wales would make a very good area for an epileptic colony and for an idiots school and he regrets that the county councils have not taken the matter up. The Glamorgan County Council had the subject under discussion a few years ago and issued a circular letter to the medical practitioners in the county with a view to ascertain how many non-pauper cases of idiocy and epilepsy there were in the county. It would appear that no effect was given to the result of this inquiry.

*South Wales and Monmouthshire Branch of the British Medical Association.*

At a meeting of the South Wales and Monmouthshire Branch of the British Medical Association held at Swansea on Oct. 25th, a committee was formed to take into consideration the readjustment of contract pay throughout the district. In connexion with certain articles which have recently appeared in the Cardiff daily newspapers the following motion was passed:

That in the opinion of this meeting it is highly inexpedient that signed articles discussing questions of professional treatment should appear in the lay press.

*New Nurses' Home at Salisbury Infirmary.*

The new nurses' home which has been erected at Salisbury as a local memorial of Her late Majesty's Diamond Jubilee was formally opened on Nov. 1st by the Marchioness of Lansdowne. The new building is in connexion with the Salisbury Infirmary and is named the "Victoria Home." The cost of erection and furnishing was £7800, the whole of which sum, with the exception of £200, has already been subscribed.

*Devon and Exeter Hospital.*

At the quarterly meeting of the governors of this institution held on Oct. 31st it was reported that for the corresponding quarter of 1900 there was a deficit of £1416, whereas at present there was a favourable balance of £730, in addition to which the sum of £3000 has been placed on deposit. This is the first time for many years that such a favourable state of affairs has occurred.

Nov. 5th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

*Bubonic Plague in Glasgow.*

SOME not unnatural alarm was caused in the city when on the morning of Nov. 1st it was officially announced that plague had reappeared in Glasgow. For some few days rumours had been current in reference to the suggestion that the outbreak in Liverpool had been traced to Glasgow, but on the last day of October an authoritative statement was issued contradicting this report. It now appears that on Oct. 19th a case of a suspicious nature was notified to the health authorities. A second case occurred on Oct. 20th and a third on Oct. 21st, each of the patients being a servant in the employ of the Central Station Hotel. All were removed to Belvidere Hospital and were kept in strict isolation, but it was not until a careful bacteriological investigation had been completed that they were definitely diagnosed as cases of plague. By this time a fourth servant in the

hotel had developed symptoms, and one of the original patients, a man, had died. On Nov. 1st a fifth case was recognised in the person of a barmaid at Airdrie Station whose duty it was to return to Glasgow every evening and who slept in the Central Station Hotel. All the patients have thus come from the same house. The hotel has been closed in order to facilitate a thorough examination, and some 200 employes remain in it under medical supervision. Some have been inoculated with anti-plague serum, and those whose work was more especially carried on in the basement have been removed to the corporation reception-house. To-day's report is that no further development has taken place, and that the patients in hospital are making favourable progress. The theory of the authorities is that the outbreak is probably to be traced to conveyance of the poison by means of rats. It is certain that rats have recently got into the basement of the hotel and that all the affected persons either worked or slept in the basement. A lively crusade against rats is, as a result, in active progress through the city. Dr. A. K. Chalmers has issued a memorandum on the subject, suggesting methods by which they may be exterminated or excluded from dwelling-houses, and these, as may be readily understood, are being energetically put into operation. Concerning the chance of the disease extending the authorities hold reassuring views. The strictly limited character of the outbreak, though a fortnight has now elapsed since the appearance of the first case, is of hopeful augury, and there is no small ground of comfort in the recollection of the success with which the much more threatening circumstances of last year were promptly controlled.

#### *University of Glasgow.*

A highly influential meeting in support of the movement for promoting the extension and better equipment of the University was held in Glasgow on Oct. 31st. The cordial feeling of mutual goodwill existing between "town and gown" was illustrated by the presence of the Lord Provost in the chair and by the numerous representative citizens and academic dons who occupied places on the platform. Letters expressing sympathy with the object of the meeting were read from Mr. A. J. Balfour, M.P., Mr. Joseph Chamberlain, M.P. (both former Lord Rectors of the University), Lord Balfour of Burleigh, and Sir Henry Craik, K.C.B. The speakers included the Earl of Elgin, Lord Reay, the Right Honourable James A. Campbell, M.P., the Solicitor-General for Scotland, Principal Story, and Professor J. G. McKendrick. Principal Story gave a general account of the objects and present position of the movement. He recalled the fact that the University had been able in recent years to provide new and highly efficient laboratory and museum accommodation for the departments of botany, engineering, pathology, and anatomy. In these respects the University is now well abreast of the claims of the present day, but in other directions much remains to be done, and it is hoped that a sum of £150,000 will be raised. Towards this total £60,000 have already been received. Principal Story expressed an eloquent appreciation of Mr. Carnegie's unparalleled benefaction, but insisted that the need for further financial assistance still remained if the Scottish universities were to continue to hold their own in the educational world, and on this point he received repeated support from the other speakers. A sketch of the proposed developments in connexion with the medical school was presented by Professor McKendrick. It is hoped to provide for the teaching of physics a new laboratory which may compare with the botanical institute recently erected at a cost of £18,000 and the new anatomical rooms which have cost £13,000. In chemistry further laboratory accommodation is required to meet the growing numbers of medical and science students, and it is proposed also to endow a chair of organic chemistry. The claims of physiology, materia medica, and public health are to be met by the erection of a new building which, with the necessary new equipment, will cost about £40,000. When this is accomplished there will be room in the present buildings for the expansion of other departments, a special surgical laboratory costing some £10,000 being now in course of erection. Professor McKendrick advocated the building of a new maternity hospital, the provision of teaching museums, and the development of fellowships for the prosecution of research. The meeting altogether was very enthusiastic and the University authorities are to be congratulated upon the skill with which they have managed to associate all interests in a common determination to

maintain the well-founded reputation of their *alma mater*.—The half-yearly meeting of the General Council of the University was held on Oct. 30th. Sir John N. Cuthbertson and Mr. W. R. Copland were re-elected assessors on the University Court. The meeting was a very long one and in the end the very unusual course was adopted of adjourning the council until Nov. 6th. A considerable amount of time was occupied in the discussion of the proposed re-arrangement of the academic year and the decision of the council was in favour of the establishment of a summer session for the arts faculty. The council recorded its grateful appreciation of Mr. Carnegie's gift and its sympathy with the movement for securing the better equipment of the University. In memory of the late Professor Dickson a valuable collection of theological works has been presented to the University library, in the service of which the late professor was engaged for nearly 40 years. A portrait of the late Principal Caird has been added to the gallery of the Divinity Hall, having been presented for this purpose by Mrs. Caird.

#### *Faculty of Physicians and Surgeons of Glasgow.*

At the annual meeting of the Faculty for the election of office-bearers held on Nov. 4th, Dr. James Finlayson was re-elected President and Mr. John Burns visitor. Dr. James D. Maclaren retired from the office of treasurer, which he has held for more than a quarter of a century, and his place was filled by Dr. William L. Reid. For the vacant examinations there were several contests, the new examiners being Mr. Thomas Gray, D.Sc., B.Sc. Lond., in Chemistry, Dr. A. K. Chalmers, medical officer of health, Dr. Hugh Galt, and Dr. R. M. Buchanan in various departments of Public Health. In Anatomy the out-going Dr. Thomas H. Bryce succeeded in securing his re-election.

#### *Glasgow Ophthalmic Institution.*

A course of post-graduate lectures on Diseases and Injuries of the Eye was inaugurated on Tuesday evening last under the presidency of Professor John Glaister. There was a good attendance, over 40 general practitioners being present. In addition to a presentation of clinical cases and a display of stereoscopic photographs, Dr. Ramsay gave a lantern demonstration on Conjunctivitis, special reference being made to the microbic origin of its various forms and their treatment.

Nov. 6th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *The Inaugural Address of the Royal College of Surgeons in Ireland.*

THE President of the Royal College of Surgeons in Ireland, Dr. Thomas Myles, delivered the inaugural address to the students on Nov. 2nd in the anatomical theatre of the College. There was a large attendance of visitors and students, and the lecture proved of much interest. Dr. Myles has long made the position of the men who join the Army Medical Service a matter of study so that his opinion on the inducements held out by that service to young men carries much weight. He adopted the somewhat novel attitude nowadays of congratulating Mr. Brodrick, the Secretary of State for War and of praising him for his recent efforts in connexion with Army medical reform. Speaking for the College and for himself, he said that he was sure that he would win the sympathy of all when he said that they were sincerely thankful to Mr. Brodrick for the great effort which he had made to improve the conditions of service in the Royal Army Medical Department. He alluded to the three blemishes of the scheme which he had already pointed out in a letter to the *Times*, and suggested that they could be removed without interfering with the general efficacy of the whole. Dr. Myles was plainly of opinion that the Army Medical Service will soon offer a fair career to the young surgeons of Ireland. As to the Poor-law Medical Service in Ireland to which so many students aspire, Dr. Myles was very outspoken. "The whole Irish Poor-law Service is," he said, "one to be shunned, and I cannot conceive how self-respecting men can offer themselves for vacancies in such numbers as they do."

#### *Royal Academy of Medicine in Ireland.*

The annual general meeting of the Royal Academy of Medicine in Ireland was held at the Royal College of

Physicians of Ireland on Oct. 25th, when the report of the last session was adopted and the officers for the coming session were elected. It was announced to the meeting that invitations had been received to the first Egyptian Congress of Medicine to be held at Cairo in December, 1902, and to the Fourteenth International Congress to be held in Madrid in April, 1903. Dr. Lombe Atthill was elected President for the year 1901-1902. Sir Christopher Nixon as President of the Royal College of Physicians of Ireland and Dr. Thomas Myles as President of the Royal College of Surgeons in Ireland, will fill the positions of President of the Medical Section and President of the Surgical Section respectively.

#### *Precautions against the Bubonic Plague in Dublin.*

A joint meeting of the Port Sanitary Authority and the Public Health Committee was held on Nov. 4th, to consider what precautions should be taken in order to prevent the entry of the plague to Dublin. Mr. Edgar Flinn, medical inspector of the Local Government Board for Ireland, attended, and took part in the discussion. It was considered by Sir Charles Cameron, the port medical officer of health, that although the existence of the plague in Glasgow and Liverpool rendered possible its transmission to Dublin by ships coming from those cities the probability was a remote one. It was resolved, however, that a medical inspection of the vessels coming from those ports should be commenced forthwith, and that circulars dealing with the necessary precautions against plague, more especially as regards the destruction of rats, should be sent out. The Public Health Committee have the Dublin port hospital ship available if it should be required.

#### *The Annual Dinner of the Cork Medical Association.*

On Saturday last the members of the above association held their annual dinner at the Imperial Hotel. Dr. T. Atkins presided. The toast of "The Cork Medical School" was responded to by Professor Charles and Professor Hartog. The former, in the course of his speech, mentioned that a grave peril might be threatening the Cork College, as there were grounds for believing that Mr. Horace Plunkett, Vice-President of the Agricultural and Technical Department, was endeavouring to have the Cork and Galway Colleges converted into technical colleges to be utilised in connexion with his department. Professor Charles dwelt on the subject at length and was listened to with great attention. The next toast was "The Navy and Army," which was responded to by Colonel Macnamara, principal medical officer, and Staff-Surgeon J. Moore, H.M.S. *Black Prince*.

#### *Proposed Nurses' Home at the Belfast Union Infirmary.*

The question of a new nurses' home at the Union Infirmary, Belfast, has been referred back for further consideration. It will probably cost £11,000; and those who object to its going on at present do so on the ground that the extension of the infirmary will cost from £4000 to £5000, the erection of a central laundry £6000, the addition to the fever hospital £1000, and that the fever cases have fallen in numbers. Those in favour of the scheme say that the nurses have not proper accommodation and that owing to this several have been laid up with typhoid fever, and that it was a curious fact that the very people on the board of guardians, who objected to the new nurses' home on the ground that there was enough work on hand, were urging them to spend a sum of £13,500 on a new board-room (which the Local Government Board said had as much space as the House of Commons) and offices.

#### *The Poor-law System in Ireland.*

There are many people in Ireland who will sympathise strongly with the following resolution which has been passed by the Larnie Board of Guardians:—

That this board is of opinion that the Poor-law system is a very costly one, giving no adequate return for the money, time, and labour expended on it; that it tends to encourage and foster idleness, thriftlessness, drunkenness, and immorality, and provides no means for dealing effectively with the tramp nuisance, but tends to encourage and perpetuate it. We, therefore, call upon the county council, the Members of Parliament for the county, and the Irish Local Government Board to use their influence with, and if necessary, to bring pressure to bear on, the Government with a view to having such a measure of reform passed as will remedy the existing evils and bring it into line with the present condition and needs of the country.

A Poor-law conference is to be held in Belfast on Nov. 7th and 8th. The following subjects are to be discussed: The Treatment of Imbeciles and Epileptics; Vagrants and Able-bodied Paupers; Children Born out of Wedlock, the

Liability of their Fathers for their Maintenance; Nursing in Infirmarys; and Boarding-out of Children.

#### *The Nursing Question in Lurgan Workhouse.*

The authorities of Lurgan Workhouse, being anxious to adapt themselves to the changes required by the Local Government Board so that their infirmary might be qualified for the training of probationer nurses whose professional status would be recognised by the central authority, have ascertained that the Local Government Board were ready to sanction the appointment of a resident medical officer (male or female) who, subject to the senior medical officer (Dr. J. S. Darling), would have control of the sick wards, the nurses, and the nursing arrangements. They would also sanction a staff of four charge nurses, four assistant nurses (qualified), and such probationer nurses as might be employed on the recommendation of the medical officer. This staff would do for the infirmary, a charge nurse and an assistant nurse being requisite for the fever hospital. If a resident medical officer is appointed and a training scheme submitted the Local Government Board have agreed to approve of the training of probationers. A special meeting to deal with the matter has been convened.

#### *The late W. H. Caldwell, M.D. R.U.I., J.P.*

It is with regret that I announce the death of Dr. W. H. Caldwell, coroner for Coleraine and district, which took place at his residence in that town on Oct. 25th after an illness of three months' duration from paralysis due to cerebral disease. Early in life Dr. Caldwell was a pharmaceutical chemist, but he subsequently studied medicine at Queen's College, Belfast, and graduated M.D. of the Royal University of Ireland in 1880. Practising in Coleraine he was in 1883 elected coroner for that district and he was a member of the board of guardians and a justice of the peace for county Londonderry. His death is greatly regretted by a numerous *clientèle* and he leaves a widow and three young children to deplore his death. He was buried in Coleraine Cemetery on Oct. 28th, the immense concourse of persons who were present testifying to his extreme popularity.

Nov. 6th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *Treatment of Lupus by Potassium Permanganate.*

At the meeting of the Academy of Medicine held on Oct. 22nd M. Hallopeau read a paper dealing with some researches of Dr. Butte on the treatment of lupus by potassium permanganate. Dr. Butte uses compresses soaked in a 2 per cent. solution of permanganate, by which he states that he has made a number of cures. M. Hallopeau tried the method in 25 cases and came to the conclusion that ulcerated patches of lupus heal with great regularity after some weeks or months, according to their extent. On non-ulcerated patches the treatment, as a rule, is without effect. The permanganate acts with greater rapidity than any other method as long as it is used in cases which are too extensive to be amenable to phototherapy. This latter method is the only one capable of producing a good effect in cases where there are no ulcerations or prominent tubercles, but where there are simply induration of the skin and deep-seated miliary nodules. M. Hallopeau referred in addition to a method of treatment promulgated by M. Kaczanowsky which consists in applying for a quarter of an hour a layer of potassium permanganate. A scab-forms which falls off at the end of three or four days, leaving a clean wound which rapidly cicatrises. This treatment is successful in superficial cases, but has no effect on deep-seated tubercles.

#### *Foundation of a Medical School at Hanoi.*

M. Doumer, the Governor of Indo-China, has decided on the foundation of a school of local medicine at Hanoi to which is to be annexed a hospital. The object of this school is to rear up a race of native Tonkinese medical men who are to be trained under French practitioners, both military and civil. Two years ago General Galliéni started a like institution in Madagascar. The average French practitioner is not in love with these schemes, for he considers that they take away outlets for the relief of a profession which is overcrowded at home, especially in Paris. They should remember, however, that very few

practitioners ever dream of going to the colonies, and that nearly all the colonial civilian practitioners are retired military or naval surgeons who have sent in their papers in order to settle in the country. On the other hand, the Governor-General cannot be expected—merely out of consideration for the metropolitan practitioners who do not choose to go to the colonies—to deprive himself of so powerful a civilising agent (one, moreover, who will approximate to European civilisation) as the native medical man.

#### *Infantile Mortality in France.*

Infantile mortality in France still keeps at a high level. Although popular notions of hygiene are more wide-spread than they were, and although the mortality-rate is certainly sinking, yet the figure reaches the enormous total of 167 per 1000. Only too often the newly-born infant among the lower classes dies solely on account of the ignorance of hygienic conditions displayed by its parents. The infant may be nursed by its mother or bottle-fed, but only too soon it is given food quite unfitting for its years and nothing is more common in the out-patient rooms at hospitals than to see mothers bringing wasted babies who, they say with pride in answer to questions, are fed on "just what we have ourselves." The same thing occurs in country districts where with a view to strengthen the child they give it brandy or absinthe in its milk. These very mothers, however, when they are instructed by the physician at the hospital pay the greatest attention to what he says and often bring up their children admirably. Maternal ignorance is therefore what has to be combated and with this end in view an active propaganda has been set on foot. The Municipal Council of Paris, on the motion of Dr. Cazalis, has just decided that whenever the birth of a child is registered in any *mairie* there shall be sent to the mother a short paper containing directions as to the chief points in the feeding and bringing up of an infant. Professor Budin and Dr. Variot, members of the sub-committee on *orphanes*, have been appointed to draw up the paper in question, and it is earnestly to be hoped that the movement may not be confined to Paris but may be extended to every *mairie* in France.

#### *Lead-poisoning from the Use of a Pewter Mug.*

At the meeting of the Hospitals Medical Society held on Oct. 25th M. Variot reported the case of a child who exhibited Complete Paralysis of the Lower Extremities and Paresis of the Upper Limbs but without any Sphincter Trouble. The little patient also had a very marked lead-line on the gums. The case was evidently one of lead-poisoning, and the only cause for which that could be ascertained was the use by the child of a mug made of pewter containing a large proportion (75 per cent.) of lead. All the symptoms which the child exhibited could be attributed to the ingestion of lead owing to small portions of the metal being dissolved by the liquids, more or less acid, which were drunk from the mug. The child was at the time of the meeting nearly well, although the extensor muscles were still rather weaker than the flexors. M. Variot drew the attention of the meeting to the fact that in certain children's hospitals mugs were still used made of pewter containing a very appreciable quantity of lead (12 per cent.) and that their constant use might easily be most harmful. M. Rendu remarked that he had seen a case of cerebral disease due to lead-poisoning in a man who was in the habit of drinking cider which had been kept in pewter.

Nov. 5th.

### SWITZERLAND.

(FROM OUR OWN CORRESPONDENT.)

#### *Tumours of the Stomach from a Medical and Surgical Point of View.*

THIS subject was discussed at length at the annual autumn meeting of Swiss medical men at Olten on Oct. 25th.—Dr. Huber of Zürich gave a *résumé* of 57 cases which he had given over into the surgeons' hands—for operation 34 cases of cancer and 23 cases of gastric ulcer or its consequences (benign tumours). In the 34 cases of carcinoma gastrostomy was performed nine times with one casualty and gastro-enterostomy in 25 cases (20 men and five women) with six deaths. The presence of the following symptoms—viz., motor insufficiency of the stomach (100 per cent.), absence of muriatic acid (76 per cent.),

and presence of lactic acid (70 per cent.)—generally decides the diagnosis, which in each case was verified by the surgeon. The rare occurrence of vomiting was remarkable (only five cases). Half the patients were between the ages of 30 and 50 years and the ages of the other half ranged between 50 and 70 years. They had generally shown gastric symptoms for half a year or more prior to the operation. In 26 cases a tumour could be palpated; the other nine cases, however, proved to be rather more advanced than these, so that a very early diagnosis was often impossible. The 23 cases of ulcer and its consequences all had motor insufficiency of the stomach in a very severe degree and some patients were very emaciated. Dr. Huber recommended these cases for operation after regular treatment with lavage for six or eight weeks has not alleviated the symptoms, thus appealing to the surgeons, "Cure our patients!"—Professor Krönlein of Zürich, who had operated upon most of Dr. Huber's patients, spoke from a surgical point of view, and he thoroughly agreed with Dr. Huber's indications for operation. He had collected the reports of 744 consecutive cases operated upon by Rhydigier, Billroth, Czerny, Mikulicz, Kocher, Roux, and himself (156) in the last 20 years. The mortality when carcinoma was present was 39 per cent. where gastrostomy was performed and 30 per cent. where the palliative operation of gastro-enterostomy was performed, whereas in the case of benign tumours the mortality in 102 cases amounted to only 19.6 per cent. But it must be considered that with increasing experience the operative result was continually improving; his own operations showed a total mortality of only 25 per cent. for cancer and 15 per cent. for benign tumours. In a minority of cases a radical cure was obtained, but the majority of the patients generally succumbed after living for a year or two.—Professor Kocher of Bern wished the total of radical operations to increase and the numbers of the palliative operations to decrease. He was all the more of this opinion as patients on whom gastro-enterostomy had been performed often lived for several years in apparently good health. Whereas the mortality of all his cases was 29 per cent., the results were improving rapidly in latter years. Of the last 52 cases he only lost 15 per cent., of the last 22 cases only 5½ per cent.; these figures refer only to carcinoma. Out of 60 patients operated upon for ulcer and benign tumours he only had five deaths, and could therefore sincerely recommend the physician to trust such patients to the surgeon's knife. After-examination of the stomach proved that the muscular and chemical forces returned and the digestive powers became normal.

Zürich, Nov. 1st.

### ROME.

(FROM OUR OWN CORRESPONDENT.)

#### *Disappearance of Plague at Naples.*

No fresh cases of plague have been reported from Naples or its neighbourhood for a fortnight. All the patients having now recovered and the persons under observation having been set at liberty the issue of bulletins from Nisida has stopped. The disease has thus been stamped out in the remarkably short space of 14 days, reckoning from the notification of the first till the isolation of the last case. Whatever blame the authorities may have incurred in the first instance they cannot be reproached for lack of promptitude or energy in dealing with the outbreak once its true nature was recognised. The result is a veritable triumph for the science of modern sanitation and at the same time an immense material saving to the city, and especially to the commerce of Naples.

#### *The Second Italian Congress of Pediatrics.*

Amongst the subjects discussed at the Pediatric Congress which has just concluded its labours at Florence was that of the respective merits of sterilised and of ordinary unboiled milk in the artificial feeding of infants. The general opinion, as summed up by Professor Mya, seemed to be that the milk should be sterilised, notwithstanding the difficulty of obtaining a really aseptic product and the generally admitted deterioration of its nutrient qualities during the process of sterilisation. Until we invent some practical method of taking the milk from the cow antiseptically and of preserving it in an aseptic condition—which would no doubt be the ideal plan—we should continue our present precautions and avoid the many risks attending the use of milk in its raw

state. Another of the questions dealt with by the Congress was the canteen system in elementary schools, in regard to which the following resolution was passed:—

Considering (1) that the intellectual benefit derived from school is smallest, and the physical damage done greatest, when the children attend in a fasting condition or insufficiently fed; (2) that the nourishment supplied at school age should be adapted not only to the organic *status quo* but also to the development of the body and to the repair of the losses ensuing from the often excessive mental work; and (3) that in infancy the future of the individual is decided, and that the most efficient means of preventing disease and of rendering the new generation robust lies in the possession of good health and especially of a healthy stomach: for these reasons the Congress recommends that the Government municipalities, public institutions, and private charities should organise the providing of refectories for the children in elementary schools; and it is further of opinion that in order to render efficient this hygienic measure, so necessary to social welfare and education, the quality and quantity of the daily rations should be determined scientifically.

#### *Report on the Plague at Naples.*

The report of the commission appointed to inquire into the facts connected with the outbreak of plague at Naples has been published. The object of the inquiry was to ascertain with whom the responsibility rested for the importation of the disease and the delay in notifying it and if possible to discover in what way the infection was introduced into the city. The result fully confirms the impression which has long been prevalent—namely, that gross carelessness, if nothing worse, has marked the conduct of the sanitary service of Naples and especially of the port. In coming to a decision the commission had to consider separately the responsibility (1) of the medical man who first denounced the cases; (2) of the local administration at the Punte Franco; (3) of the medical men who attended the patients first attacked; and (4) of the maritime sanitary officials. To Dr. Sorge, who originally drew attention to the suspicious cases, no blame for delay can be attached, since his only duty at the Punte Franco was to attend to accidents among the dock-labourers. In regard to the local administration, it appears that owing to the buildings at that spot being devoted entirely to the storage of imported merchandise there was no sanitary supervision exercised either by the Government or by the municipality, but only a fiscal control for the levying of customs dues. There was therefore no sanitary officer whose special duty it was to attend to the workpeople there and any sick person among them had to seek medical advice elsewhere. As to the different medical men—general practitioners and hospital surgeons—who attended the earlier cases and diagnosed them variously as adenitis, typhoid fever, typhilitis, pneumonia, &c., no suspicion of the real character of the malady seems to have arisen in their minds; and therefore, although they are perhaps blameable for their failure in diagnosis, they can scarcely be held guilty of a breach of the law, a contravention of which presupposes a recognition, or at least a suspicion, of the true nature of the disease. With respect to the responsibility of the maritime sanitary officials, the inquiry resolved itself into an examination, in the first place, of the special cases to which the outbreak of plague has drawn attention, where suspected ships had obtained *libera prateria*; and, in the second place, of the working of the sanitary service of the port previously to the outbreak under normal conditions. The commissioners find that there is no proof of any of the ships having had a case of plague on board, but, on the other hand, they severely censure the authorities for the way in which the sanitary measures prescribed by law had been carried out. They comment upon the absence of the officials from their posts when their services were required, on the perfunctory character of the medical visits to the incoming ships, and on the absurdly inadequate nature of the measures for disinfection, which they characterise as a mere farce. It appears that the medical visit was confined to the crew and the steerage passengers, and consisted in a rapid and general review of them without any questions being asked which might elicit the existence of individual ailments. The disinfection of personal effects in cases where such diseases as typhoid fever, diphtheria, &c., existed was left to the sanitary police, who carried it out in a totally inadequate manner without any supervision from the medical officer, who meanwhile passed his time chatting with the ship's officers in the saloon, frequently joining them also at their mess. Under such conditions it is impossible to determine how, or by which ship, the infection was imported, but it was sufficiently clear that while, in the concluding words of the report, "the prophylactic measures sanctioned by the maritime sanitary law and other ordinances in force are

amply sufficient, the irregular, negligent, and incomplete execution of these—in other words the failure of the maritime sanitary officials to conscientiously discharge their duty—may have been, and perhaps really was, the actual cause of the calamity which has befallen Naples." As a result of the investigation the medical officers concerned have been called upon to exculpate themselves and have meanwhile been suspended from their duties at the port. The punishment awaiting these delinquents will, no doubt, be well deserved, but it is to be feared that they are merely the scapegoats and that the causes of all this negligence and mismanagement lie deeper—namely, in the generally effete and corrupt administration of the public affairs of Naples, which has been only partially exposed by the startling disclosures contained in the recently published report of the Saredo Commission.

#### *Intravenous Injections of Corrosive Sublimate in Foot-and-Mouth Disease.*

In his inaugural address to the Eleventh Italian Medical Congress which began its sittings at Pisa on Oct. 27th Professor Baccelli occupied himself chiefly with his new method of treatment for foot-and-mouth disease in cattle. He related how, on his appointment some months ago to the Ministry of Agriculture, he had found that Italy was suffering from a severe visitation of epizootic apthæ, and the idea had occurred to him that intravenous injections of a parasiticide might have beneficial effects in this as in other diseases. He recalled how, 12 years ago, he had employed with astonishing results intravenous injections of hydrochlorate of quinine in pernicious malaria, and later, also with success, similar injections of carbolic acid for tetanus, and he determined to make a trial of corrosive sublimate in foot-and-mouth disease. Happening soon afterwards to be at Civita Vecchia and aware that there were cases in that neighbourhood he instructed the municipal veterinary surgeon, Dr. Croce, how to apply the method, advising for young animals doses of from two to four centigrammes (from one-third to two-thirds of a grain) in each injection, according to the case; for adult animals from four to six centigrammes (from two-thirds to one grain); and for bulls from six to eight centigrammes (from one to one and a quarter grains); the solution containing for every centigramme of sublimate 75 milligrammes of chloride of sodium. The number of diseased animals so injected was 52, and all were rapidly and completely cured. Shortly afterwards he sent Dr. Croce to Sardinia where the disease had affected 26 animals. All of these were treated similarly and cured in the same speedy and thorough way. In other parts of Italy identical results were obtained by another veterinary surgeon, Dr. Cosea. Veterinary surgeons in general were doubtful about the safety of mercurial preparations in cattle and were almost averse to it, but these experiments proved that this idea was merely a prejudice, the fact being that cattle were singularly tolerant of mercury, which, moreover, was peculiarly well adapted for the treatment of apthæ, passing as it did directly to the chief seat of the disease—namely, the mouth—where it could be demonstrated in the saliva after the lapse of only one minute. Inquiries made by Professor Baccelli in regard to other methods of cure practised in Italy and elsewhere for foot-and-mouth disease showed that his mode of treatment was the best, and he was convinced that it would be the means of effecting an enormous pecuniary saving to the country. At its final sitting on Oct. 31st the Congress resolved to make the subject of "Intravenous Therapeutics" the leading theme of its next meeting, which will be held at Rome.

Nov. 2nd.

## NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

#### *Medical Practice in New Zealand.*

OPPORTUNITIES have during the recent Royal visit presented themselves by which I have been able to discover the opinions of several journalists and others associated with the *Ophir's* glorious visit to New Zealand in connexion with our general position "down under." It appears that three points in particular have struck those "from above"—our buildings, our municipal management, and our journalism. Now, the four careers for which the universities and other examining bodies at home can qualify a man are

those of the cleric, the medical man, the barrister, and the journalist. The Royal visitors, I imagine, saw but little of the first; happily (equipped as they were in the possession of (Dr. Manby) had little need of the second; owing to general rejoicing no necessity for the third; and the fourth estate was the only quarter from which they could form an opinion as to the literary attainments of the *hoi polloi* for which it caters. It is nevertheless an undoubted fact that all these professions are at the present moment, without exception, overdone in New Zealand. The legal profession, perhaps, first and the medical a good second. As a matter of fact successful tradesfolk in this colony endeavour to educate their sons that they may enter one of the above professions. Now, ever since the days of John Knox it has been possible for the child to obtain an excellent education in Scotland, and the boy who had the talent had barely to think about ways and means. The same holds good in this colony. The time is rapidly coming in New Zealand (as it has long ago come at home) when well-educated men, whose education has unfitted them for the real battle of life, can find no place "within the meaning of the Act." Many of these unfortunates would have been much happier if they had been left to the manual arts of their predecessors, and had not been (by too ambitious parents) beguiled by the gifts of a superior education to strive for positions beyond their reach. All the world over—and New Zealand is no exception—the tendency is to crowd into cities, and to seek gain from work which is not reproductive; to over-educate a colony must lead many of its units into heartburnings. Young medical men without family ties which bind them to the motherland and who meditate practising in some other clime, may have had their attention directed to the "Britain of the South"; to such the following particulars about New Zealand from a medical point of view may be of some interest. Many young medical men have arrived in this colony brimful of hope that a lucrative practice was readily obtainable. Let me again warn them, that, unless they go out with a sufficient stock of worldly goods to commence with, New Zealand is no longer the Elysium it once was. Competition for public appointments is remarkably keen, and "influence" is an important factor in obtaining them. As a rule higher fees are paid to general practitioners out here than in England, much higher as far as actual money is concerned; but, on the other hand, living, clothing, and the maintenance of house and servants—the last-named being very expensive luxuries—soon dispel the rosy hue which the fees may offer to those who are eking out an existence in Great Britain. The average fee paid to a general practitioner is 7s. 6d. per visit; midwifery fees range from three to five guineas or more, according to the status of the patient and to mileage; here, perhaps, the advantage ceases. Operative work is not as a rule generously responded to in the way of remuneration. The majority of the people are of the labouring or middle classes, who are struggling themselves to make both ends meet. These for the most part resort to the hospitals where skilled medical care and nursing can be obtained at a small weekly charge. In the larger hospitals the medical staff is honorary; in the smaller, where there is no competition, the medical officers receive a small salary. The better class of patients avail themselves of private hospitals which are becoming more and more numerous in the larger centres; some of these are simply nursing homes where people from country districts remote from medical aid can come to be confined, or to receive other medical assistance; others are practically run by operating surgeons for their own benefit, and here, to quote from Dr. Goodhart's recent admirable address in Medicine at the annual meeting of the British Medical Association, "people undergo serious operations for the purpose of stitching harmless mobilities—for it is only quite exceptional that it is otherwise—into their places." Here also "throats and noses suffer terribly from this lust of operation that has beset the public." The multiplication of these private hospitals has given a great impetus to operative surgery; there is a real danger that the best interests of the patient may be subordinated to the eagerness to devise an operative remedy. The majority of the thrifty members of the community belong to "clubs," and as there is no wage-limit many who joined a lodge during hard times but who have afterwards become affluent belong to them. Clubs are being more and more abused by well-to-do people. Every man finds his own level in the colonies much sooner—acting by himself and without influential aid—than he does in the old country. The men who succeed best are those with a good all-round knowledge of their profession and who have made some study of the "special departments."

A man, especially in the smaller townships, has to rely upon himself in many trying emergencies, and never knows when he may be called upon to perform any operation. The cost of bringing a consultant from another town is nearly prohibitive to people with moderate incomes, and most incomes are moderate. I may again remind intending medical emigrants that there is a medical school in New Zealand where students are annually presented after examination with their diplomas. Most of these diplomates do not commence practice until they have gone home for further study; Edinburgh seems to have a great attraction for many of them, and Edinburgh graduates form a large and influential contingent of the general body of medical men who practise in the colony. These Otago University students are well grounded before they go home to complete their medical education, and they omit no opportunity of attaining practical knowledge; when they return to New Zealand to commence practice they not only do themselves great credit, but reflect the same on their *alma mater*. A general practitioner, particularly if he has passed his first youth, coming out from the old country to practise in New Zealand will find the competition of these young colonials, enjoying local popularity and prestige, a very formidable one. Youthfulness, from a professional point of view is no disadvantage, and a professional career terminates earlier in life than is the case in England. The native population (Maoris) with few exceptions are now greatly impoverished, notwithstanding that the Government has by wise and generous legislation sought to protect them from themselves and from land-grabbers. Work amongst the natives is not usually much coveted; they are very fickle, will only carry out such instructions as fall in with their own ideas, and have a foolish prejudice against paying a medical practitioner's bill. Recently the Government has paid considerable attention to matters pertaining to public health; the work is yet in its infancy, but at no distant date there will be a regularly organised public health service, and there may be openings for men who possess special qualifications for this work.

#### *Birth- and Death-rates.*

The birth-rate in the colony for the year 1899 was 25.12 per 1000 persons living. The rate is lower than for the preceding year and, indeed, since the year 1881 there has been a steady decline. Indeed, notwithstanding the fact that the number of marriages solemnised has increased of late years the birth-rate for last year was the lowest so far recorded in the statistics of the colony. New Zealand had in 1880 the highest birth-rate of all the Australasian colonies—viz., 40.18 per 1000—but now the case is reversed, for the "Britain of the South" is at the bottom of the list with only 25.12. New Zealand shows the lowest death-rate as compared with the other Australasian colonies and, indeed, in European countries, being equivalent to 10.24 in every 1000 persons living. Deaths from violence in 1899 formed a large item in the total mortality, for the proportion per 10,000 persons living was 7.23, the total number of deaths having been 542, of which number 71 persons committed suicide. On the census being taken this year (April, 1901) it was discovered that the total population of New Zealand (exclusive of natives) amounted to 772,455. The native population is roughly estimated at 42,500, thus showing an increase in the population in both races since the census of 1896. Now, the number of medical practitioners in a young colony is sure to be of a more or less fluctuating character, various attractions drawing them here and there. At the present time the New Zealand Branch of the British Medical Association has enrolled 270 members, while on the register of the Colony no less than 664 names are to be found. Irregular practitioners, including several Chinese "doctors," herbalists, and medical galvanists, play their part here as elsewhere in Australasia.

Sept. 26th.

UNIVERSITY OF CAMBRIDGE.—The University Lectureship in Medicine will be vacant at Christmas by the resignation of Dr. D. MacAlister.—The Examiners for Medical Degrees in the current academical year are—in Physics, Mr. Wilson, F.R.S., and Mr. Skinner; in Chemistry, Mr. Adie and Mr. Morrell; in Elementary Biology, Mr. Bateson, F.R.S., and Mr. Blackman; in Human Anatomy, Professor A. Macalister, F.R.S., and Professor Birmingham; in Physiology, Mr. Lloyd Tuckett and Mr. Waymouth Reid, F.R.S.; and in Pharmaceutical Chemistry, Mr. Ivatt and Mr. Purvis.—On Oct. 24th the following degrees were conferred: M.D., G. F. McCleary, Trinity Hall; M.B., J. A. Glover, St. John's.

## Medical News.

**NATIONAL DENTAL HOSPITAL.**—The annual distribution of prizes at the school connected with this hospital, of which H.R.H. the Duke of Cornwall and York is President, took place on Oct. 24th. The following is a list of awards. Dental Anatomy: medal, Mr. W. H. Haskew; certificate, Mr. S. Wheeler. Dental Mechanics, Theoretical: medal, Mr. F. P. Hamilton; certificates, Mr. W. H. Haskew and Mr. A. Allshorn. Dental Mechanics, Practical: medal, Mr. W. H. Haskew; certificate, Mr. W. Mountain. Dental Metallurgy: medals, Mr. H. G. Elstob and Mr. W. H. Haskew; certificate, Mr. F. P. Hamilton. Dental Surgery: medal, Mr. F. P. Hamilton; certificates, Mr. W. H. Haskew and Mr. F. A. Howorth. Operative Dental Surgery: medal, Mr. F. P. Hamilton; certificates, Mr. H. G. Elstob and Mr. L. Mosely. Dental Histology: medal, Mr. W. H. Haskew. Ash Prize: Mr. F. P. Hamilton. Rymer Gold Medal: Mr. W. H. Haskew. The Dean, Mr. Sidney Spokes, in alluding to the satisfactory condition of the school, mentioned that Mr. Hugh Candy had been appointed lecturer on Dental Metallurgy and Mr. Kenneth Goadby lecturer on Dental Bacteriology. Dr. G. Vivian Poore, after distributing the medals and certificates, delivered a brief address, to which reference has been made in a leading article contained in THE LANCET of Nov. 2nd, p. 1206.

**VACCINATION IN LEICESTER.**—The annual report of the medical officer of health of the borough of Leicester, just issued, shows that during the year 1900 there was a material increase in the number of people vaccinated, the total being more than double that of the previous year and nearly four times that of 1898. The following statistics show the private and public vaccinations in the borough of Leicester for the past 16 years:—1885, 979 public and 863 private, total, 1842; 1886, 561 public and 561 private, total, 1122; 1887, 188 public and 286 private, total 474; 1888, 80 public and 234 private, total 314; 1889, 31 public and 141 private, total 172; 1890, 12 public and 119 private, total 131; 1891, 6 public and 86 private, total 92; 1892, 12 public and 121 private, total 133; 1893, 44 public and 205 private, total 249; 1894, 29 public and 104 private, total, 133; 1895, 12 public and 63 private, total, 75; 1896, 19 public and 67 private, total 86; 1897, 11 public and 70 private, total 81; 1898, 12 public and 80 private, total 92; 1899, 56 public and 100 private, total 156; 1900, 155 public and 188 private, total 343.

**UNIVERSITY COLLEGE, BRISTOL.**—The following prizes were awarded in the medical department on Oct. 25th. Summer session:—Pathology, prize, J. Crétin. Medical Jurisprudence, certificate, C. Corfield. Operative Surgery, prize, C. Corfield. Midwifery, prize, A. Short. Practical Medicine, Surgery, and Midwifery, certificates, W. Webb and A. Short. Practical Physiology, prize, W. H. J. Pinniger; certificates, W. Ring, R. Bodman, C. E. K. Herapath, F. Perry, W. Lennox, H. Goodden, R. Vaughan, and F. G. Bergen. Pharmacology, prize, S. Hayman; certificate, T. Pratt. Materia Medica, prizes, F. G. Bergin and W. Pinniger. Practical Chemistry, prizes, C. Plumley and W. King; certificates, R. Lecky, R. Vaughan, and G. H. Smith. Anatomy, prize, W. Pinniger; certificates, F. W. Perry, A. Thomas, and J. S. Avery. University Entrance Scholarship (£50), C. S. Rivington. Lady Habersfield Entrance Scholarship (£30) A. E. Iles; Martyn Memorial Pathological Scholarships of £10 each, A. R. Short and C. Corfield; Tibbits Memorial Prize (£9 9s.), P. W. White; Committee's gold medal for the student of the fifth year who has most distinguished himself, J. E. Sparks; Augustin Prichard Prize (£6 6s.), C. J. Taylor; Clarke Scholarship (£15), A. Short; Henry Marshall Prize (£12), A. Short; Sanders Scholarships, J. E. Sparks (£22) and C. Corfield (£11); Special Midwifery Certificates, W. Blatchford, J. Clayton, F. Rudge, and C. J. Taylor.

**REQUESTS AND DONATIONS TO HOSPITALS.**—Mrs. Jane Lermite, of Thatched House, Muswell-hill, daughter of the late Dr. James Corrie of Finchley and widow of Mr. Edwin Walker Lermite, has bequeathed £300 to the North-West London Hospital to endow an Edwin Lermite cot.—By his will of Dec. 16th, 1895, with codicils of May 5th, 1896, and Dec. 22nd, 1897, Mr. Matthew Whiting of Auckland, No. 48, North-side, Wandsworth-common, whose

estate has been valued at £153,804 8s. gross, including personality of the net value of £140,870 18s. 7d., left the residue of his property (about £120,000) in trust in equal shares for St. Thomas's Hospital, St. George's Hospital, Guy's Hospital, King's College Hospital, the Westminster Hospital, the Middlesex Hospital, the London Hospital, the Royal Free Hospital, St. Mary's Hospital, the Great Northern Hospital, the Brompton Hospital for Consumption and Diseases of the Chest, and the New Hospital for Women, Euston-road.—By the will of Alderman Sir Robert Sexton, of the firm of Robert Sexton and Sons, Dublin, dated April 17th, 1901, £500 are left to the Dublin Royal Hospital; £200 each to the Hospital for Incurables and the Royal Victoria Eye and Ear Hospital; £100 each to the Children's Hospital in Harcourt-street, the Orthopaedic Hospital in Brunswick-street, St. Patrick's Nurses' Home, and the Jervis-street Hospital.—St. Mary's Hospital has received a donation of 50 guineas from the Merchant Taylors' Company and a donation of £500 from Mrs. Vlasto, in memory of her husband, the late Mr. Alexander A. Vlasto.

**GUY'S HOSPITAL CHILDREN'S HOME.**—This institution has for its object the provision of a home in connexion with Guy's Hospital for the reception and maintenance of the infants of the women employed in the laundry, hostel, and elsewhere in the hospital, and of such other children as the authorities of the home may think fit to admit. The primary intention is to help young unmarried women with first babies, anxious to redeem themselves and ready to work steadily, that they may earn money for the support of their children. The home has been actively carrying on work since October, 1899. The mothers are required to contribute 5s. a week towards the board of their children, or this sum has to be guaranteed from an outside source, the balance required for the maintenance of the home being raised by annual subscriptions. In order that the full establishment of the home may be utilised, the treasurer appeals for additional subscriptions "in the strong belief that the appeal will be met by those who unite with the spirit of compassion an appreciation of its intelligent and practical exercise." Donations, gifts, or communications respecting the home should be addressed to Mrs. Wells, Friern Lodge, Westwood Park, Forest-hill, S.E. The report for the year 1900 states that 14 children had been admitted up to Sept. 30th, 1900, at which date eight were remaining in the home and three were awaiting admission.

**MEDICAL TOWN COUNCILLORS.**—At the recent municipal elections the following members of the medical profession were elected town councillors: Mr. Henry McQuade, M.D., B.Ch. Dub., at Bristol; Mr. Preston King, M.D., B.C. Cantab., at Bath; Mr. W. Paul Swain, F.R.C.S. Eng., at Plymouth; Mr. T. Stevenson Balfour, M.D., C.M. Edin., at Chard; Mr. Charles Edward Liesching, L.R.C.P. Lond., M.R.C.S. Eng., at Tiverton; and Mr. Maurice John Doidge, B.A. Cantab., M.D. Brux., M.R.C.S. Eng., at Glastonbury. In South Wales Mr. James Robinson, L.R.C.P., L.R.C.S. Irel., was returned at Cardiff, and Mr. Michael O'Sullivan, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., at Swansea.

**MUNIFICENT GIFT.**—The Executive Committee having charge of the arrangements for providing a consumption hospital for Worcestershire are carefully considering various sites and types of building which have been proposed and are inviting subscriptions. The following generous offer has been addressed to Mr. G. H. Fosbrooke, county medical officer, by Mr. Thomas Corbett:—

Impney, Droitwich, Oct. 25th, 1901.  
DEAR MR. FOSBROKE,—I have pleasure in informing you that I am now in a position to promise, on behalf of the estate of my late brother, Mr. John Corbett, a donation of £1000 to the building fund of the proposed county sanatorium for consumption for the county of Worcester. It is an institution my late brother was much interested in and which he was most anxious to promote, and if he had lived he would have been very glad to see successfully established. Feeling myself assured, as my brother did, of the good work which can be accomplished by means of such an institution, I take this opportunity of expressing my earnest hope that the scheme may be brought to a successful conclusion.—Believe me, yours faithfully,  
THOS. H. CORBETT.

**DR. HENRY DUTCH** has been returned by a majority of nearly 300 votes at the recent bye-election as councillor for the Grosvenor Ward of the city of Westminster, in the place of Colonel the Hon. Heneage Legge, M.P., resigned.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ANDERSON, EDMUND L., M.B., Ch.B. Vict., L.S.A. Lond., has been appointed Honorary Assistant Surgeon to the Hospital for Cancer and Skin Diseases, Liverpool.

BOND, FRANCIS THOMAS, M.D. Lond., M.R.C.S., F.R.S. Edin., has been re-appointed Medical Officer of Health by the Thornbury (Gloucestershire) District Council.

BREWERTON, ELMORE, F.R.C.S. Eng., has been appointed Assistant Surgeon to the Royal Westminster Ophthalmic Hospital.

BROWN, J. WALTER, M.B., B.Ch., R.U.I., has been appointed House Surgeon to the Royal Victoria Hospital, Bournemouth.

CUMMING, WILLIAM, M.D. Edin., has been appointed Health and Medical Officer at Cairns, Queensland.

EADES, A. J., L.R.C.P. & S.I., Assistant Medical Officer County Asylum, Prestwich, has been appointed Senior Assistant Medical Officer at the County Asylum, Winwick.

EVANS, C. W., M.B. Lond., has been re-appointed Medical Officer of Health for Bakewell.

FLETCHER, J. L., M.B., M.S. Edin., has been re-appointed Medical Officer of Health for the South Darley Urban District.

HADLEY, CLEMENT, M.R.C.S., L.K.Q.C.P.I., has been appointed Certifying Surgeon under the Factory Acts for the Shilton District of Warwickshire.

HALL, J. BASIL, M.C. Cantab., &c., has been appointed Honorary Surgeon to the Bradford Royal Infirmary, vice W. L. Roberts, M.R.C.S., deceased.

HARDING, H. W. L., M.R.C.S., has been appointed Public Vaccinator in New Zealand.

HOWARD, VINCENT, M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Acts for the Borough and Rural District of Buckingham.

HOGG, JOHN A., L.R.C.P., M.R.C.S., has been appointed Medical Officer of Health to Castle Donington Rural District Council.

JACKSON, D., M.D. Glasg., has been appointed Medical Officer of Health for the Urban District of Hexham.

LANGHAM, W., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Axminster Rural District.

LLEWELLYN, J., M.R.C.S., L.S.A., has been appointed Medical Officer for the Sherburn District of the Scarborough Union.

MURRELL, CHRISTINE M., M.B., B.S. Lond., has been appointed Assistant House Physician to the Royal Free Hospital, Gray's Inn-road.

OGSTON, F., M.D. Aberd., has been appointed District Health Officer in New Zealand.

PARRY, T. W., M.B., B.S. Cantab., has been appointed Certifying Surgeon under the Factory Acts for the Youlgreave District of Derbyshire.

POLLEN, H., M.D. Dub., has been appointed Medical Practitioner under the "Workers' Compensation for Accidents' Act, No. 2" (Australia).

ROSS, MARION J., M.D. Glasg., has been appointed House Surgeon to the Morpeth Dispensary.

WARE, GEORGE STEPHEN, M.B., B.S. Durh., L.R.C.P., M.R.C.S., L.S.A., has been appointed Medical Officer and Public Vaccinator for the Fourth District of the Barnstaple Union, vice J. W. L. Ware, L.R.C.P., M.R.C.S., resigned.

WILSON, JAMES MITCHELL, M.D. Glasg., has been appointed County Medical Officer of Health for the East Riding of Yorkshire.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

BARNWOOD HOUSE HOSPITAL FOR THE INSANE, Gloucester.—Junior Assistant Medical Officer. Salary £150 per annum, rising to £170.

BIRKENHEAD AND WIRRAL CHILDREN'S HOSPITAL, Woodchurch-road, Birkenhead.—House Surgeon. Salary £100 per annum, with board, residence, and laundry.

BOROUGH OF SOUTHWARK.—Public Analyst. Salary £400 per annum, rising to £500.

BRACEBRIDGE ASYLUM, near Lincoln.—Junior Assistant Medical Officer, unmarried. Salary £125 per annum, with apartments, board, attendance, &c.

BRADFELD UNION.—Medical Officer and Public Vaccinator. Salary £53, and fees amounting approximately to £35 per annum. Also Medical Officer for the Workhouse, Bradfield. Salary £60 per annum.

BRENTFORD UNION.—Assistant Medical Superintendent of the Infirmary and Assistant Medical Officer of the Workhouse and Schools at Isleworth. Salary £100 per annum, with apartments, rations, washing, &c.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn-road, W.C.—House Surgeon. Salary at rate of £50 per annum, with board and residence.

CHESTER GENERAL INFIRMARY.—House Physician. Salary £90 per annum, with residence and maintenance.

COUNTY ASYLUM, Lancaster.—Assistant Medical Officer, unmarried. Salary £150, increasing to £200, and on promotion to £250, with apartments, board, washing, and attendance.

COUNTY ASYLUM, Mickleover, Derby.—Senior Assistant Medical Officer. Salary £130, rising to £150 per annum, with apartments, board, washing, and attendance. Also Junior Assistant Medical Officer. Salary £110, rising to £130 per annum, with apartments, board, washing, and attendance.

COUNTY ASYLUM, Prestwich, Manchester.—Junior Assistant Medical Officer, unmarried. Salary £150, increasing to £250, with board, apartments, and washing.

EDAY, ORKNEY.—Medical Officer. Salary £50 per annum, with other emoluments.

HESEX COUNTY ASYLUM, Brentwood.—Fourth Assistant Medical Officer. Salary £150 per annum.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Fifth Assistant Medical Officer, unmarried. Salary £170, with board, lodging, and washing.

GRIMSBY AND DISTRICT HOSPITAL.—Resident House Surgeon. Salary £80 per annum, with board, lodging, and washing.

HOLBORN UNION INFIRMARY, Archway-road, N.—Assistant Medical Officer. Salary £100 per annum, rising to £140, with usual residential allowance.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTON DISPENSARY.—Junior House Surgeon. Salary £75 per annum, with residence, board, and washing.

LONDON HOSPITAL MEDICAL COLLEGE.—Assistant to the Bacteriologist and Lecturer on Bacteriology.

LONDON HOSPITAL, Whitechapel, E.—Aural Surgeon.

MANCHESTER EAR HOSPITAL, 23, Byrom-street.—Clinical Clerkship for a Senior Student for six months. Honorarium 10 guineas.

MONSALL FEVER HOSPITAL, Manchester.—First Medical Assistant. Salary £180 per annum, with board and lodging.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary £160, increasing to £180.

NORTH LONDON HOSPITAL FOR CONSUMPTION, Mount Vernon, Hampstead, N.W., and Fitzroy-square, W.—Assistant Physician.

ROYAL DENTAL HOSPITAL OF LONDON.—Lecturer on Dental Surgery and Pathology.

ROYAL DEVON AND EXETER HOSPITAL, Exeter.—Junior Assistant House Surgeon for six months. Salary at rate of £50 per annum, with board, lodging, and washing.

ROYAL INFIRMARY, Sheffield.—Casualty Officer. Salary £100 per annum, with board, lodging, and washing.

ROYAL MATERNITY CHARITY OF LONDON.—Physician.

SOMERSET AND BATH LUNATIC ASYLUM, Cotford, Taunton.—Assistant Medical Officer, single. Salary £150 per annum, with apartments, board, and washing.

ROYAL SEA BATHING HOSPITAL, Margate.—Resident Surgeon, as Junior for six months and then as Senior for the like period. Salary at rate of £80 and £120 per annum respectively, with board and residence.

ST. MARY'S HOSPITAL FOR SICK CHILDREN, Plaistow, E.—Assistant Resident Medical Officer (unmarried) for six months. Salary £80 per annum, with board, residence, laundry, &c.

ST. MARY'S HOSPITAL, Quay-street, Manchester.—House Surgeon and Resident Obstetric Assistant Surgeon. Salary £100 per annum, with board and residence.

WESTMINSTER GENERAL DISPENSARY.—Honorary Physician.

WORCESTER COUNTY AND CITY ASYLUM.—Junior Assistant Medical Officer. Salary £120 per annum, increasing to £150, with board apartments, and washing.

The Chief Inspector of Factories, Home Office, London, S.W., gives notice under the Factory Acts of vacancies for Certifying Surgeons at Fannett, in the county of Donegal; at Clackmannan, in the county of Clackmannan; and at Margate, in the county of Kent.

## Births, Marriages, and Deaths.

### BIRTHS.

ATKINSON.—On Oct. 26th, the wife of W. Alexander Atkinson, M.D. Durh., of a son.

BEKFRAGE.—On the 30th ult., at 2, Montagu-place, W., the wife of S. Henning Bekfrage, M.D., of a son.

BIDWELL.—On Oct. 30th, the wife of Leonard A. Bidwell, F.R.C.S., of a son.

TIPPETT.—On Oct. 22nd, the wife of Sydney Gordon Tippet, M.B. Lond., of a son.

### MARRIAGES.

BRYANT-WATTS.—On Oct. 31st, at St. Paul's Church, Cambridge, by the Rev. Dr. Stokes, LL.D., vicar, assisted by the Rev. L. B. Laurence, M.A., Charles Hilary, third son of E. Ross Bryant of Newcastle-on-Tyne, to Theodora Harvard Watts, fifth daughter of the late Thomas F. Watts and Mrs. Watts of Bracondale, Cambridge.

CARSBURG-FASTNEDGE.—On the 31st Oct., at St. George's Church, Stamford, Alfred Ernest Carsberg, M.A., M.B. Cantab., youngest son of George N. Carsberg, Esq., of Hornsey-lane, N., to Mabelle Ruth, youngest daughter of Richard B. Fastnedge, Esq.

GORDON-WILSON-RISCH.—On Nov. 2nd, at St. John's, Blackheath, by the Rev. Thomas Turner, vicar of S. Saviour's, Fitzroy-square, Alexander Gordon-Wilson, M.D. Lond., F.R.C.S. Eng., of Lyell House, Folkestone, to Louisa Mary Friederick Risch.

SAVILL-BLACKADDER.—At St. Mary Magdalene's Church, Dundee, on the 2nd inst., Thomas D. Savill, M.D. Lond., to Agnes F. Blackadder, M.A. St. And., M.D. Glasg., by the Rev. Francis Burdon, rector of St. Mary Magdalene's.

### DEATH.

SMITH.—On Oct. 29th, Henry Spencer Smith, F.R.C.S., in his 89th year.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## Notes, Short Comments, and Answers to Correspondents.

### WARDS IN CHANCERY.

It occurs at times to medical practitioners desirous of supplementing their income by undertaking the charge of children and young persons in delicate health that the Court of Chancery, in the exercise of its jurisdiction over its wards, may be glad of their services, and that the court should have a fairly constant supply of young persons to be thus provided with desirable and suitable homes. A recent inquiry from a correspondent illustrates what we mean. He writes: "Could you give me the information of how and to whom to apply for the charge of a ward in Chancery? If you would do so I should be greatly obliged." Perhaps the best way to answer such an inquiry is to explain the position of the Chancery Division of the High Court of Justice in the matter of those young persons in whose welfare the Lord Chancellor is popularly supposed to interest himself personally. The Court of Chancery, as it is convenient to call it, will always undertake the superintendence and protection of the early years of those who possess money, if it is applied to with that object—for example, where money in which the infant is interested is paid into court under the Trustee Relief Act. A very small amount is sufficient to interest the court in the matter, and a parent desirous to obtain the aid of the court to prevent an imprudent marriage finds it convenient to do so by the settlement of a comparatively small sum of money, perhaps not more than £100, and complying with the necessary formalities, which sum the court will feel it its duty to shield from the possible future inroads of an undesirable bride or bridegroom. As a rule, however, wards of the court to whom such inquiries as the above might be held to refer are young persons entitled to property which may be large or small, but who have come to be wards of the court owing to some difficulty existing as to their rights, or some question having been raised as to the proper person to be appointed as their guardians. In any case someone has been interested in their career at some time and in consequence of that interest the court has been consulted, and if any question has arisen as to guardianship the court has settled it by appointing some person whom it has considered to be the proper person for the post. This person, whoever he or she may be, whether father or mother or a person in no way related, performs the duties of guardianship under the court's supervision; the ward is not to be taken out of the court's jurisdiction without its leave; an account is to be given of the methods adopted to secure his or her proper education, and the consent of the court must be procured to his or her marriage, or the wrath of the court will be incurred. The mere fact, however, of the possession of property, it will be seen, implies the existence of persons interested in the child's welfare and if there are infants in the court's charge as wards in Chancery in whom no one outside the court and its officials is interested they can hardly exist in sufficient numbers for any official, as our correspondent would seem to imply, having anything in the nature of a constantly recurring function to exercise in the choice of homes for children in weak health. The care of those whose deficiency is mental depends upon the establishment of the mental unsoundness which afflicts them, but the jurisdiction exercised by the Lord Chancellor and the Lords Justices of Appeal in matters which concern lunatics has nothing to do with that which is exercised by the Court of Chancery over infants whose property has been entrusted to the care of the court. In conclusion, we may say that the ward in Chancery is an infant whose guardian is subjected to supervision by the court owing to his possessing property in which the court is interested, but that we are not aware of any officially recognised method by which the temporary care of the infant's body may be obtained.

### MARSHALL HALL'S METHOD OF RESUSCITATION.

To the Editors of THE LANCET.

Sirs,—In reply to your correspondent "P. T." in THE LANCET of Nov. 2nd, p. 1240, he can find the account of Dr. Marshall Hall's method for the resuscitation of the apparently drowned in "Osborn's First Ambulance Lectures," published by Lewis, Gower-street. It is as follows. The patient is laid upon his face with one arm flexed and placed as a cushion for his forehead to rest upon and his chest supported by folded articles of clothing. The opposite arm is then taken by the wrist by one hand while the other hand rests on the patient's shoulder-blade of the same side, the body is then turned on its side and a little beyond and the arm which is being held by the wrist is elevated above the head; by this means inspiration is effected. The body is then turned back on to the face whilst pressure is made with the hand resting on the thorax sufficiently to drive the air out again and expiration is simulated. Two assistants, one taking the head and the other the lower extremities, follow the operator in his movements when turning the body backwards and forwards.

I am, Sirs, yours faithfully,

Nov. 4th, 1901.

H. T.

### THE OBLIGING OPTICIAN.

A CORRESPONDENT has sent us a cutting from the *North Devon Herald* of Oct. 24th, by which we are informed that Mr. A. E. Dark, F.S.M.C., B.O.A., Spectacle Specialist (Diploma by examination from the Worshipful Company of Spectacle Makers, London, 1899), lives at 14, High-street, Barnstaple. Mr. Dark says that all errors of refraction are correctly diagnosed and that difficult cases and those considered impossible to suit with glasses are specially sought for. He keeps a special eye-testing room and neither time or (*etc*) trouble is spared in testing, with the result that glasses prescribed by him are in almost every case faultless for clearness and comfort. We have not the least idea what F.S.M.C. may mean or B.O.A. either, for the only body with which we have any acquaintance is an animal whose chief characteristics are entrapping unwary prey and then swallowing it. Mr. Dark had better confine himself to his proper trade of grinding lenses to a curvature the figures for which may be supplied to him by a properly qualified medical man.

### GRATITUDE.

A CORRESPONDENT has sent us the following letter:—

To Dr. A—,

Sir,—I, J. R., do wish hereby to express to you and your Assistant, Dr. D., my deep felt gratitude for, and appreciation of, the kindness, patience, and skill displayed by you in the treatment of my wife in the crisis through which she passed in the early months of this year which will ever be remembered by us. Likewise the sympathy and treatment in our other trials is remembered by us with respect and deepest gratitude. Wishing you may always have like success in your undertakings,

I remain, your humble servant,

J. R.

Dr. A— is rightly gratified at such a testimonial. These are the little things that sweeten the medical life, while they remind the medical man that his calling is not a pure trade, inasmuch as the intimate service which he may be called upon to render to his patients can never be paid completely in money.

### AN ENVIABLE OPPORTUNITY

To the Editors of THE LANCET.

SIRS,—I note that you allude in a leading article in THE LANCET of Nov. 2nd, p. 1207, to the enviable opportunities that dentists seem able to enjoy for fishing—among other pursuits. I was speaking a day or two ago to a friend of mine, a dentist and a fisherman, upon the subject, when he handed me the inclosed record of his catches from Oct. 1st to 26th inclusive. He seemed to consider that the reproach of wasting his time could not well be brought against him,

I am, Sirs, yours faithfully,

Nov. 5th, 1901.

ARTIFEX.

[INCLOSURE.]

Oct. 1st, 1901 ... 19 lb., 6½ lb.	Oct. 14th, 1901 ... 17½ lb., 16½ lb., 15½ lb., 8 lb.
" 3rd, " ... 3½ lb.	" 15th, " ... 16 lb., 11½ lb.
" 4th, " ... 5 lb.	" 17th, " ... 8 lb., 7 lb., 7½ lb.
" 5th, " ... 25 lb., 20 lb., 11 lb., 10 lb.	" 18th, " ... 16 lb.
" 8th, " ... 14½ lb.	" 21st, " ... 18½ lb.
" 9th, " ... 18½ lb., 14½ lb., 6 lb.	" 22nd, " ... 22 lb.
" 10th, " ... 7 lb., 6½ lb.	" 23rd, " ... 14½ lb.
" 11th, " ... 28 lb., 22½ lb., 20½ lb., 19 lb., 18 lb., 8 lb.	" 24th, " ... 18½ lb., 8 lb.
" 12th, " ... 21 lb., 16½ lb., 7 lb.	" 25th, " ... 19 lb., 18½ lb., 14 lb.
	" 26th, " ... 16 lb.

42 fish, weighing 599½ lb., killed on the Mayen water, averaging about 14½ lb., all on the fly.

### ADVERTISEMENT IN EXCELSIS.

In the issue of M.A.P. of Nov. 2nd Mr. T. P. O'Connor mentions that he prescribed "the dry meal" as a specific for dyspepsia. Without stopping to do more than say that it is foolish for a layman or even for a medical man to "prescribe" any one remedy for a condition which depends upon so many things as that of dyspepsia, we presume that Mr. O'Connor means that eating without drinking relieves some forms of dyspepsia. However, Mr. O'Connor has been called indignantly to task by "Dr. Yorke Davies, the eminent specialist on food and digestion." Now, Mr. Yorke-Davies, who has the qualifications of M.R.C.S., L.R.C.P. Lond., L.S.A., and L.M. Dub., writes to Mr. T. P. O'Connor and points out quite rightly the danger of prescribing in the lay press. So far so good; but when he proceeds, as he does, to say in so many words how skilled he himself is in the treatment of dyspepsia we must protest. Take the following sentences: "I diet thousands of people." "I suppose there is not a day that I do not get patients ..... "I have dieted many thousands for this purpose, and in no single case has one ever come to me for this, where they have not been able to say that they benefited by the process." Mr. Yorke-Davies also remarks: "I think I know a little about literature and writing, as I have been a writing-man all my life." We are glad to know this at

first hand for from the following sentence we should never have thought it. "If a person wants to lose weight advise them to go to the expert who can do it without harm." Lest there should be any doubt as to who the expert is Mr. Yorke-Davies kindly adds: "Many patients of Schweninger, whose system of reducing weight is the dry one, come to me." Why patients should be benefited by seeing Mr. Yorke-Davies lose weight we cannot understand. After the thousands of patients who have seen him he must be in the condition of Augustus, of whom it may be remembered the poet (a medical man) remarked—

"Look at him now the fourth day's come,  
He scarcely weighs a sugar-plum."

We may add that we have received two letters of protest against this unblushing advertisement, one from a medical man and one from a layman.

#### ISAAC GORDONS AND THE MONEY-LENDING ACT (1900).

WE have received a little pamphlet from Mr. Thomas Farrow, whose book, "The Money Lender Unmasked," led to the passing of the Money Lenders Act, 1900. True, Mr. Farrow contends that the Act is perfectly useless, and he gives quotations from the *Law Times* and from *Truth* to support his contention. Mr. Farrow mentions a number of reforms which he considers should be useful, and, to our minds, the Act certainly ought to be amended upon Mr. Farrow's lines. Young medical men frequently fall victims to these sharks' delusive advertisements, so that we, as medical journalists, have a personal, if possibly selfish, interest in seeing money-lenders checked.

#### THE METHODS OF A PUBLIC VACCINATOR.

ON two previous occasions we commented (see THE LANCET, August 17th, p. 502, and Sept. 14th, p. 768) upon the methods of a certain public vaccinator. In both instances we withheld the gentleman's name. As, however, the circular continued to be sent out we wrote to him calling his attention to what we had said. We received a reply which we do not think is satisfactory. However, he mentions that he courts publicity; therefore we publish his name and address—Dr. Theo. Parker, Beryl, South Norwood.

#### A CASE OF MALINGERING.

To the Editors of THE LANCET.

SIRS,—A man, giving the name of Charles Turner, aged 49 years, came in here one wet morning saying that whilst at work on the Great Northern Railway at Royston repairing telephone wires a telegraph pole had fallen across the front of his abdomen, knocking him down and rendering him unconscious for two hours. The accident occurred at 8 A.M. He said he vomited on recovering consciousness and again on reaching the infirmary at 11 A.M. On examining him the abdomen was tense and rigid; there was no tympanites. He complained of severe pain and tenderness. Urine was passed two hours previously; some was drawn off with a catheter and was normal in every respect. An old laparotomy scar was observed on the abdomen. The skin was cold and moist and his temperature was 97° F. I was told by the matron that she remembered having seen a similar case at Norwood Cottage Hospital some years ago which proved to be a fraud and had the patient carefully watched. The surgeon under whose care he was came to the conclusion after four days' observation that there was nothing the matter with the man and he was eventually turned out of the infirmary. He has a trick of adulterating the urine with tobacco-juice, and by slow degrees makes himself obnoxious to the nurses. The man has, I believe, been at Royston Cottage Hospital, from which he departed at 5 A.M. one morning. He then came on here. He sometimes gives the alias of Charles Stevens, but his tale is usually the same. He gives a false address in London, travels by himself, and he said he worked for the National Telephone Company, which is untrue. I inclose a photograph of the abdomen; he objected to have his face taken.

I am, Sirs, yours faithfully,

H. DONALDSON-SIM.

General Infirmary, Hertford, Oct. 29th, 1901.

\*.\* The photograph which our correspondent incloses shows an apparently very tense distended abdomen, the distension being specially marked along the line of the transverse colon. Mr. Donaldson-Sim, however, expressly says that there was no tympanites. Probably if the nature of the case had not been detected the man would have gone on to produce a phantom tumour.—ED. L.

#### "TEGMINE."

"TEGMINE" is the name given to a sticky and aseptic preparation of oxide of zinc which is intended to be spread over the spot where the scarifications in vaccination have been made. Before the smear of tegmine has hardened a circular textile pad may be placed over it. Tegmine dries very rapidly and its application with the pad obviates the use of other protective appliances. The method is cleanly and neat, with no unsightliness at all. Scars look very healthy usually under this simple but effective dressing. Tegmine is sterilised by steam and drawn into sterilised zinc tubes by air-pressure. The small outfit submitted to our notice was sent to us by Messrs. Rebman, Limited, 129, Shaftesbury-avenue, London, W.C. It is stated that tegmine has been described at the Imperial Institute for the Cultivation of Calf Vaccine in Vienna as "the most suitable and reliable protection in vaccination."

M.D. (Bournemouth).—There is no tariff that will exactly meet such inquiries. The practitioner will best judge for himself, having generally special knowledge of the means and circumstances of his patient and of the value of his own time. Three guineas and five guineas would appear reasonable fees for the services rendered in the respective cases. But our correspondent must use his own judgment.

Country Practitioner.—We are not quite certain of the price and date of the later editions of the best books but will reply in the course of the week.

Streatham.—The law is perfectly clear on the matter and a solicitor's advice is all that our correspondent requires.

ERRATUM.—We regret that through an error the name of Messrs Martell and Co., the well-known producers of brandy in the Cognac district, was given in our analytical notice of Pedigree Port last week. Messrs. Martell and Co. are in no way connected with the Pedigree Port Company, the proper address of which is Gt. St. Helen's, London, E.C.

ERRATUM.—In THE LANCET of Oct. 26th, p. 1153, col. 1, line 17, "Major E. J. Lloyd to be Surgeon-Lieutenant" should read Surgeon-Lieutenant-Colonel.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

## Medical Diary for the ensuing Week.

### OPERATIONS. METROPOLITAN HOSPITALS.

**MONDAY (11th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynaecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopaedic (2 P.M.), City Orthopaedic (4 P.M.), Gt. Northern Central (2.30 P.M.) West London (2.30 P.M.), London Throat (2 P.M.).

**TUESDAY (12th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**WEDNESDAY (13th).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopaedic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

**THURSDAY (14th).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynaecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**FRIDAY (15th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**SATURDAY (16th).**—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

### SOCIETIES

**MONDAY (11th).**—MEDICAL SOCIETY OF LONDON (11, Chandos street, Cavendish-square, W.).—8.30 P.M. Clinical Evening. Mr. A. Pearce Gould: Two Cases of Actinomycosis.—Mr. Monier-Williams: Case of Ulcerative Colitis treated by Colotomy. Paralysis of Eleventh and Twelfth Cranial Nerves.—Mr. T. H. Kellock: Case of Bilateral Disease of the Ankle-joints in a Child.—Mr. C. Mansell-Moullin: Case of Spina Bifida Occulta.—Mr. A. Carless: Case of Amputation of Entire Upper Extremity for Chondro-sarcoma, with specimen.—Mr. J. L. Thomas, C.B.: (1) Photograph of a Large Occipital Meningocele cured by Operation; (2) A New Reel for Multiple Ligatures.

**TUESDAY (12th).**—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Paper.—Mr. C. B. Keestley: Ulceration of the Oesophagus and Stomach due to Swallowing Strong Hydrochloric Acid, Lessons of Treatment deduced from Three Cases.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN (17, Bloomsbury square, W.C.).—8 P.M. Papers:—Mr. T. E. Wallis: The Structure of Capsicum Minimum.—Mr. W. H. Lenton: The Ash of Capsicum Fruits.

**WEDNESDAY (13th).**—DERMATOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—5.15 P.M. Demonstration of Cases of Interest.

HUNTERIAN SOCIETY (London Institution, Finsbury-circus, E.C.).—8.30 P.M. Discussion on Small-pox and Vaccination in which Dr. W. A. Bond will take part. Paper: Dr. Major Greenwood: The Present Position of Small-pox and Vaccination. Dr. MacCombie: The Differential Diagnosis of Small-pox, with remarks on Prodromal Rashes and Vaccination.

**THURSDAY (14th).**—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Mr. B. Browne: Twenty-five Years' Experience of Urinary Surgery (Harveian Lecture.)

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. H. Macnaughton-Jones, Mr. R. O'Callaghan, and others. Paper: Dr. H. Snow: Prophylaxis in Gynæcology.

**FRIDAY (15th).**—SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN (11, Chandos-street, Cavendish-square, W.).—5.30 P.M. Cases and Specimens will be shown by Mr. A. H. Tubby, Dr. D. Walsh, Mr. S. Stephenson, Dr. E. Cautley, and Mr. W. G. Nash. Papers: Dr. E. Cautley: Observations on the Etiology and Morbid Anatomy of Tuberculous Meningitis.—Mr. G. Pernet: A Family Epidemic of Impetigo Contagiosa Bullosa.

#### LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

**MONDAY (11th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. J. F. Payne: Clinique. (Skin.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. H. Li. Williams: Diagnosis of Pain in the Teeth.

**TUESDAY (12th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Sir W. H. Broadbent: Clinique. (Medical.)

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. Ormerod: Cases in Hospital.

ROYAL UNITED SERVICE INSTITUTION (Whitehall).—3 P.M. Dr. L. Canney: Typhoid, the Destroyer of Armies, and its Abolition (followed by a Discussion).

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. S. Taylor: Medical Anatomy.

**WEDNESDAY (13th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. E. W. Roughton: Clinique. (Surgical.)

LONDON THROAT HOSPITAL (204, Great Portland-street, W.).—5 P.M. Dr. F. Potter: Selected Cases. (Post-Graduate Course.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Maguire: Aortic Regurgitation (with cases).

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL (Gray's Inn-road, W.C.).—8 P.M. Dr. W. Wingrave: The Examination of the Ear.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Minor Surgery.

**THURSDAY (14th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Mr. Kellock: Abscess in connexion with Spinal Caries and its Treatment.

CHARING-CROSS HOSPITAL.—4 P.M. Mr. Gibbs: Demonstration of Surgical Cases. (Post-Graduate Course.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Keetley: Unreduced Dislocations.

**FRIDAY (15th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. H. Tilley: Clinique (Throat).

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. Risien Russell: Paraplegia.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Dunn: Ocular Symptoms.

#### EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed exclusively "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side of the paper only, and WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

#### MANAGER'S NOTICES.

##### TO SUBSCRIBERS.

Will Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsgagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid and not to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.			TO THE COLONIES AND ABROAD.		
One Year	...	£1 12 6	One Year	...	£1 14 8
Six Months	...	0 18 3	Six Months	...	0 17 4
Three Months	...	0 8 2	Three Months	...	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET OFFICES, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or on any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and Agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

#### METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 7th, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 a.m.
Nov. 1	30.28	S.E.	...	88	54	44	43	47	Cloudy
" 2	30.36	S.E.	...	78	54	42	42	44	Hazy
" 3	30.38	E.	...	67	50	36	45	45	Hazy
" 4	30.33	S.E.	...	53	42	35	35	36	Foggy
" 5	30.42	E.	...	42	34	35	35	35	Foggy
" 6	30.32	S.W.	...	51	41	33	34	34	Foggy
" 7	30.23	W.	...	48	44	34	38	38	Foggy

During the week marked copies of the following newspapers have been received:—Bristol Mercury, Midland Evening News, Yorkshire Post, Morning Post, Morning Advertiser, Daily Express, Lincolnshire Chronicle, Times of India, Eastern Province Herald (Port Elizabeth, S. Africa), Reading Mercury, Windsor and Eton Express, Leicester Daily Post, Glasgow Daily Record, Dunoon Herald, Dublin Daily Express, Shields Gazette, Cambrian Leader, Hexham Courant, Newcastle Leader, Bournemouth Guardian, Manchester City News, Bristol Press, Sheffield Independent, Irish Times, Oldham Standard, Supplement, Dundee Advertiser, Literary Digest, Surrey Advertiser, Preston Herald, Nottinghamshire Free Press, Uzbridge Advertiser, Bury Press, &c.

### Communications, Letters, &c., have been received from—

A.—An Old Privy Councillor; Messrs. Arnold and Sons, Lond.; Messrs. Allen and Hanburys, Lond.; Dr. D. H. Anderson, Barrow-in-Furness.  
 B.—Mr. C. Birchall, Liverpool; Mr. T. Bryant, Lond.; Dr. C. R. Box, Lond.; Mr. J. B. Boddy, Scalby; Messrs. J. H. Booty and Son, Lond.; Mr. A. Bronner, Bradford; Messrs. R. Boyle and Son, Lond.  
 C.—Dr. A. Collie, Nice; C. S. P.; Mr. G. Clark, Lond.; County Asylum, Prestwich, Clerk of; Condensed Egg Syndicate, Lond.; Cortland Wagon Co., Lond.; Messrs. Cassell and Co., Lond.; Miss Crofts, St. Leonards; Crooksbury Sanatorium, Farnham, Assistant Medical Officer of; Messrs. Carfax and Co., Lond.; Chester General Infirmary, Secretary of.  
 D.—Sir Dyce Duckworth, Lond.; Messrs. Davis and Ornstein, Lond.; Dr. E. Darke, Lond.  
 E.—Miss Turle Evans, Lond.; Elston Press, Lond.  
 F.—Dr. J. Ferrus, Lond.; F. L. T.; Dr. Theodore Fisher, Bristol; Mrs. E. P. Furner, Hastings.  
 G.—Sir William Gowers, Lond.; Dr. Hugh Galt, Glasgow; Mr. E. A. Gibson, Lond.; Messrs. Green and Sons, Edinburgh.  
 H.—Dr. J. Basil Hall, Bradford; Mr. W. F. Haslam, Edgbaston; Dr. L. K. Herschel, Bortholghera; Mr. S. Harris, Birchington-on-Sea; Messrs. G. Hyder and Sons, Shillong; Messrs. J. Haddon and Co., Lond.; Mr. A. Harden, Lond.; Dr. D. Hooper, Lond.  
 I.—Dr. W. A. Illingworth, Cape Town; Imperial Accident, &c., Insurance Co., Lond.  
 J.—Mr. Evan Jones, Aberdeen; J. H. J.; J. C.; Mr. Thomas W. James, Lond.  
 K.—Mr. C. R. Keyser, Lond.; Messrs. R. A. Knight and Co., Lond.; Dr. Walter Kidd, Lond.  
 L.—Dr. Clayton Lane, Calcutta; Leicester Infirmary, Clerk of; L. C. R.; Liverpool Corporation, Medical Officer of Health of; Leeds and West-Riding Medical-Chirurgical Society, Secretary of; Mr. H. K. Lewis, Lond.  
 M.—Mr. W. Martindale, Lond.; Manchester Corporation, Medical Officer of Health of; J. Marston's Carriage Works, Birmingham; Dr. J. Dyssart McCaw, Lond.; Mr. A. D. McCormick, Lond.; Maltine Manufacturing Co., Lond.; Mr. L. McGavin, Lond.; Mr. C. F. Marshall, Lond.; Manchester Bar Hospital, Secre-

tary of; Mysore Government, Bangalore, Senior Surgeon of; St. Mary's Hospital, Manchester, House-Surgeon of; Messrs. C. Mitchell and Co., Lond.  
 N.—Dr. W. P. Nicol, Woodstock, Cape Colony; Nurses' Institute, Canterbury, Lady Superintendent of; Mr. H. Needes, Lond.; Mr. J. C. Needes, Lond.  
 O.—Dr. James Oliver, Lond.; Messrs. Offord and Sons, Lond.; Mr. G. S. O'Rourke, Nottingham; Professor Ogston, Aberdeen; Overdale Asylum, Whitefield, Medical Superintendent of; Dr. A. J. Rice Oxley, Lond.  
 P.—Mr. George Pernet, Lond.; Messrs. Parke, Davis, and Co., Lond.; Dr. W. S. Playfair, Lond.; Mr. Y. J. Pentland, Edinburgh; Messrs. J. Patterson and Sons, Liverpool; Porcherne, Ltd., Lond.; Mr. F. E. Potter, Lond.; Mr. V. G. Plarr, Lond.; Messrs. Peacock and Hadley, Lond.  
 R.—Dr. W. G. Richardson, Newcastle-on-Tyne; Royal Devon and Exeter Hospital, Secretary of; *Revue Hebdomadaire de Laryngologie et d'Otologie*, Bordeaux; Mr. W. Redpath, Lond.  
 S.—Dr. Herbert Spencer, Lond.; Dr. W. Stewart Stalker, Woking; Sanitary Inspectors' Examination Board, Hon. Secretary of; Messrs. Street and Co., Lond.; Sell's Advertising Agency, Lond.; Messrs. Squire and Sons, Lond.; Messrs. G. Street and Co., Lond.; Messrs. W. B. Saunders and Co., Lond.; Smith's Advertising Agency, Lond.; Salford Royal Hospital, Secretary of; Stockton and Thornaby Hospital, Stockton-on-Tees; Scholastic, Clerical, &c., Association, Lond.; Mr. C. G. Stuart-Menteath, Lond.  
 T.—Dr. C. Todd, Lond.; T. H. B.; Messrs. C. Tayler and Co., Lond.; T. J. C.; Mr. J. Tweedy, Lond.; Mr. T. W. Tullett, Lond.; T. F.; Messrs. W. and D. C. Thomson, Dundee; Mr. W. Thurnall, Lond.  
 W.—Dr. A. A. Warden, Paris; Mr. T. W. Webb, Grampound; Mr. James A. Walkden, Manchester; Messrs. Ward, Lock, and Co., Lond.; Wills, Ltd., Lond.; Dr. D. Walsh, Lond.; Messrs. W. Wood and Co., New York; Mr. A. Wallace, Lincoln; Herr R. Weinhold, Schöneberg; W. T. H.; Worcester County Asylum, Medical Officer of; Messrs. Wright, Layman, and Umney, Lond.; Dr. Hale White, Lond.; Dr. Hugh Walker, Shawlands.  
 Y.—Dr. E. S. Yonge, Manchester.

### Letters, each with enclosure, are also acknowledged from—

A.—Dr. H. R. Andrews, Lond.; Apollinaris Co., Lond.; A. W.; St. Andrew's Hospital, Northampton, Secretary of; A. E. T.; A. D. T.; A. T. H.  
 B.—Dr. F. C. Brodie, Sandown; Messrs. Bedford and Co., Lond.; Mr. B. G. Bryant, Newcastle; Messrs. J. L. Bullock and Co., Lond.; Birmingham, &c., Ear and Throat Hospital, Secretary of; Dr. S. K. Basu, Dacca, India; Messrs. Burgoyne, Burdighes, and Co., Lond.; Blackburn and East Lancashire Infirmary, Secretary of; Barnwood House, Gloucester, Medical Superintendent of; Miss Bush, Bexhill-on-Sea; Dr. S. H. Belfrage, Lond.; Mr. G. A. Brown, Tredegar; Bootle Corporation, Cashier of; Messrs. J. Beal and Son, Brighton; Bristol Royal Infirmary, Secretary of; Mr. J. C. Braine-Hartnell, Stroud; Messrs. Blackie and Son, Lond.; Mrs. L. A. Brooks, Grays.  
 C.—Mr. J. Clark, Edinburgh; Mr. J. B. Cox, King's Lynn; Mr. J. M. Cushman, Jamestown, U.S.A.; Dr. Cotton, Newmains; O. A. B.; Cafolin Co., Lond.; Mr. J. Black Cameron, Lond.; Dr. T. Campbell, Glasgow; Mr. G. W. Collins, Wanstead; 2, Chapman-street, Manchester; Cantab, Lond.; C. F. S.; C. B.; Cornwall County Asylum, Bodmin, Clerk of; C. G. G.; Dr. R. Craven, Chipping; Dr. D. A. Coles, Haifa, Syria; Mr. F. Copeland, Lond.; Carlisle Dispensary, Secretary of.  
 D.—Dr. F. Dobbin, Carrigrohane; Mr. W. Doughty, Chillington; *Dundee Courier*; Dumfries and Galloway Royal Infirmary, Treasurer of; Mr. G. E. Dodson, Norwich; Messrs. H. Dawson and Co., Lond.; D. S. H.; D. D.  
 E.—Bday Parish Council, Orkney, Clerk of; E. W. S.; E. R. F.; Messrs. Elliott, Son, and Boyton, Lond.  
 F.—Dr. A. W. Fuller, Maidenhead; Mr. A. D. Forbes, Millicarne; Mr. H. R. Fawcett, Edgbaston; Dr. F. E. Fremantle, Lond.; F. C.  
 G.—Mr. H. Gould, Blackadon; Gloucester General Infirmary, Secretary of; Dr. G.; G. J. H.; Mr. W. E. Gowland, Lond.; Messrs. Glover and Carter, Dartford.  
 H.—Heigham Hall, Norwich, Secretary of; Mrs. Hilliard, Alresford; Messrs. Hooper and Co., Lond.; Mr. D. Heron, Ballynahinch; Hamilton Association, Lond.; H. F. B.  
 I.—International Plasmon, Lond.; Ingham Infirmary, South Shields.  
 J.—Mr. A. Jones, Harrogate; J. B.; J. T. O. C.; J. A. C.; J. H.; J. E. K.—K. B. L.  
 L.—Dr. G. R. Livingston, Dumfries; Mr. C. Lupton, Leeds; Lee's Advertising Agency, Lond.; Liverpool Northern Hospital, Secretary of; Locum, Grimsby; L. L.  
 M.—Dr. H. C. Miller, San Remo; Dr. D. Macdougall, Greenock; Dr. D. W. K. Moody, Montrose; Mr. J. J. Minehan, Skibbereen; Mr. G. V. Murray, Cork; Mr. J. Murray, Lond.; M. S. M. D.; Medical Graduates' College, &c., Lond., Secretary of; Morpeth Dispensary, Secretary of; Mr. J. Meachan, Lond.; Medical, &c., Agency, Lond.; Medicus, Southport; Dr. S. Moore, Holbeck; M. J. L.  
 N.—Northern Medical Association, Glasgow; N. M.; Mr. T. W. Newsholme, Sheffield.  
 O.—Odourless Retentive Disinfectant Cloth Co., Secretary of.  
 R.—Mr. J. W. Roberts, Knayton; Mr. J. B. Richardson, Darlington; Royal Alexandra Infirmary, Paisley, Clerk of; R. P. G.; Mr. R. Rowlands, Cricketh; Lieutenant-Colonel P. F. Robertson, Bray; R. W. J.; Richmond Gas Stove Co., Lond.; Miss Ringwood, Haslemere; Royal Albert Hospital, Devonport, Secretary of; R. C. T.  
 S.—Miss J. A. Stuart, Margate; Springfield House Asylum, Bedford; Southampton Corporation, Borough Treasurer of; Stirling, Falkstone; Surgeon, Lond.; Sigma, York; S. W. Witton Park; Somerset and Bath Lunatic Asylum, Cotford, Clerk of; *Sheffield Independent Press*.  
 T.—Mr. L. A. Tallerman, Lond.; Dr. M. Takayasu, Shichōme, Japan; T. H.; T. S. B.; T. A. L.; T. W. F.  
 U.—Miss A. C. Underwood, Torquay.  
 V.—Mr. S. Verity, Garndiffaith; Vinolia Co., Lond.  
 W.—Mr. B. Wheeler, Manchester; Mr. E. J. Walker, Bournemouth; Dr. W. Whitelaw, Kirkintilloch; Weir Hall, Edmonston, Secretary of; Messrs. J. P. and C. B. Wagstaff, Hornchurch; Wilks, Lond.; *Wills County Mirror*, Salisbury, Manager of; Dr. H. H. Weekes, Old Brompton; Wolverhampton Eye Infirmary, Secretary of; Dr. A. Whitcome, Darereth; Mr. R. M. Wright, Burwell; Messrs. H. Wilson and Son, Lond.; W. M. M. C.; W. H. E.  
 X.—X. Y. Z., Lond.; X., Leeds.  
 Z.—Z., Lond.

EVERY FRIDAY.

# THE LANCET.

PRICE SEVENPENCE.

### SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 8	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an additional advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance. Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Amiens, Paris.

### ADVERTISING.

Books and Publications	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 8
	Every additional Line	0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s. Terms for Position Pages and Serial Insertions on application.

*The Harveian Lectures*  
ON  
**TWENTY-FIVE YEARS' EXPERIENCE OF  
URINARY SURGERY IN ENGLAND.**

*Delivered before the Harveian Society of London*

By G. BUCKSTON BROWNE.

LECTURE I.<sup>1</sup>

*Delivered on Nov. 7th, 1901.*

MR. PRESIDENT AND GENTLEMEN,—In thanking the Harveian Society for the honour which it has conferred upon me in inviting me to deliver the Harveian Lectures I should like to remark upon the unusual nature of the society's choice. The Harveian Society has invited a purely private practitioner to lecture before it. My life since I left University College Hospital and School in December, 1874, where I was first of all house surgeon and then demonstrator of anatomy, has been entirely devoted to private practice. At the end of the year 1874 I was invited by Sir Henry Thompson to join him as his assistant and for the next 14 years we were side by side. He never operated without my being present and I practically saw all his patients with him. These 14 years were very active and full of experience and opportunity. When they came to an end I worked on alone, not less actively, so that I have had 27 years in one great department of surgery—namely, the surgical diseases of the urinary organs, and I propose to devote this present course of lectures to what I think I have learned in these years and to attempt to give my reasons for the faith which I believe in me. Just as in ovariectomy and in all abdominal surgery peritonitis was in the early days the great dread of the surgeon, so in urinary surgery fever was the great fear of the operator. And this fear controlled, influenced, and in fact dominated all his movements and all his plans and checked all his enterprise. If he passed a lithotrite or employed a catheter he often found that fever followed, and a fever which not infrequently proved fatal. The surgeon therefore interfered as little as possible with the urinary passages and for many years but little real progress was made.

I propose at once to consider the question of urinary fever, for it is at the bottom of the whole of urinary surgery. Wherever you touch urinary surgery you find this fever, and even now its causation and therefore its prevention is very little understood. In all our books you find vague and uncertain statements. I believe this fever to be at its outset purely a suppression of urine, varying from merely transitory to the most complete and absolute, this suppression being due to the inhibition of the action of the kidney from urethral shock. The nerve-supply of the urethra is remarkably generous and the penis itself is most intimately connected in this way with the rest of the body. An excellent illustration of the very liberal nerve-supply of the urethra and of its intimate connexion with the rest of the body is afforded by the study of the marvellous phenomena of erection. In the pre-chloroform days many a man has died upon the operating-table simply from the shock of an amputation of the penis. If a bougie is passed upon the average young man in the standing posture he will in many cases in a few moments be writhing on the floor in what is practically an epileptiform convulsion; let him be put to bed, and a good perspiration encouraged, and he will soon be well; but if an old man be subjected to a similar shock he does not always recover. Many surgeons of sufficient experience will be able to recall some case of an elderly man who has had a catheter passed and who has never secreted another drop of urine and has died. In illustration of the effects of shock and of its control by the use of sedatives I well remember a nervous, sensitive, highly-strung young practitioner who came to me with a severe urethral stricture. The gentlest instrumentation was followed by high fever. I fortunately thought of giving him one-sixth of a grain of morphia hypodermically

an hour before passing the bougie. This was followed by the happiest results: there was no fever and dilatation was easily proceeded with. Some years ago I had even a more instructive case than this with my old fellow-student Dr. Peter Duncan of Croydon. He called me to a case of an elderly gentleman with retention of urine and a long history of urethral stricture. The case was urgent and with great care and not easily I passed a No. 1 silver catheter and drew off a large quantity of urine. Next day I found the patient comatose and so ill from urinary fever that both Dr. Duncan and I thought he would die. He responded, however, to active treatment and made a good recovery. The question then was, what was to be done to the stricture? It must be treated, but if the simple passage of a No. 1 silver catheter was nearly followed by death, what would happen if the interference was more radical than that? Sir William Broadbent supported me in my proposal to perform my operation of internal urethrotomy at one sitting under an anæsthetic. A clean cut through the fibres of the stricture was followed by the best results. There was no fever, no illness of any kind, and the patient lived for several years in perfect urethral comfort. We often find in practice that the stricture patient can bear a certain sized bougie well, but if an instrument at all larger is used its introduction is sure to be followed by fever. I have often found that a medical friend is very much surprised when it is pointed out to him that however often he has had to deal with urinary fever in male adults he has never had to do with it in women or in children of either sex, for women and children never suffer from this fever. Now do not all these facts prove that the fever is due to nervous shock, to urethral shock? The male adult's urethra is a sexual as well as a urinary tract, his penis is highly endowed with nerves, and it is precisely he who suffers from this fever. The urethra of the woman and child is a urinary tract only and they do not suffer. Deal gently with the male urethra and all will probably be well; use violence and the results may be disastrous. Narcotise the patient with opium or with chloroform and you may use violence up to a certain point and still have no fever. You may often cut the urethra, if you do not stretch it, and have no fever. You may one day pass a catheter and have no fever, and next time and on the same patient you may not be so skilful and successful, you may blunder and hurt the patient and make him bleed, and severe fever will follow. Then, again, it is impossible to practise for many years among patients troubled with urinary disorders without observing that certain nationalities are more prone to this fever than others. The French are certainly much more susceptible than the Germans, and among the British the Irishman is far more likely to suffer than the Englishman. These more susceptible people are certainly the most nervous, this term being used in its highest and best sense, for many will agree that the Irish and the French are the two cleverest peoples in the world. Even amongst people of the same nation, the more highly trained, the more educated, the more refined the subject, the more likely is he upon due provocation to suffer from this fever. The physician, the poet, and the painter are certainly worse subjects for operation where the urethra is concerned than the labourer and the uneducated classes generally. All these clinical facts prove that the onset of urinary fever is due to nervous urethral shock conveyed to the secreting tissues of the kidneys by the urethral nerves and inhibiting the secretory action of these organs to a lesser or greater extent, producing suppression of urine, from the most complete and absolute to the slightest and most transient possible. In fact, urinary fever is suppression of urine. If the suppression of urine is complete or considerable the kidney naturally becomes engorged with blood, inflammation ensues, and in bad cases suppuration follows, and the patient frequently sinks into a state, often and deservedly called typhoidal, and dies. No doubt this suppuration is more likely to occur if there be surgical impurity in the bladder, and hence the necessity for careful antisepticism from the very commencement of any surgical urinary treatment. My view, therefore, is that while this urinary fever may undoubtedly run on and develop into septicæmia, it is not, primarily, blood-poisoning. A clear view of this subject will be an excellent guide in practice, helping us to prevent as well as to cure, it will save us from all the dangerous fallacies which result from huge and undigested statistics, from drawing conclusions from operations on one race of people and applying them to all other races, and it will make the history of urinary surgery clear, reasonable, and instructive, whereas without this definite

<sup>1</sup> Lecture II. was delivered on Nov. 14th and Lecture III. will be delivered on Nov. 21st.  
No. 4081.

understanding much may appear irregular, uncertain, and extraordinary.

In 1875, when I began practice, a man with a stone in his bladder was subjected to either perineal lithotomy or to lithotripsy, and occasionally large quantities of small stones were simply washed out of the bladder by Clover's apparatus, a good instance of this latter operation being published by the late Mr. John Foster in THE LANCET of Oct. 10th, 1874, four years before Professor Bigelow published his paper on Litholapaxy. The woman with a stone was generally cut and boys and girls were always cut. Lithotripsy was unquestionably an unpopular operation. The general surgeon was opposed to it, although Liston, Brodie, and Fergusson had all given it their countenance. Sir Henry Thompson, in his time, was almost alone in this country, as an advocate and champion of the operation, urging its adoption not as a substitute but as a complement to the operation of lithotomy. Sir Henry Thompson is without doubt the most prominent figure in urinary surgery during the latter half of the nineteenth century, and it will be my earnest endeavour to make clear the part which he has played and the principles which he has consistently adhered to throughout his career. He is happily still amongst us, but I speak entirely on my own responsibility. I speak strongly on this matter, for he has been, over and over again, unworthily attacked by those who, finding that he did not know and foresee everything, have failed to give him credit for the great work which he has done and have not been sufficiently generous to admit how much they owe to him. The early lithotritists of course had to practise without anaesthesia, and they found that patients bore badly the repeated introduction of instruments, and that the more instrumentation they underwent the more severe was the resulting urinary fever. This led Civiale, the father of lithotripsy, to inculcate the importance of short sittings and of the employment of great gentleness, and it was with this teaching that Thompson was imbued when he began his surgical career in London. Sir Henry Thompson became emphatically the propagandist of gentleness in urinary surgery in this country. This principle of gentleness is a great one, and is still of vast importance, although the introduction of anaesthetics has made it subject to certain modifications. The lithotrites of 1860 were the ingenious and unhandy instruments of Brodie and Fergusson and the perfect instrument of modern days is entirely due to the suggestion of Thompson and to the mechanical genius of the elder Weiss. No one but the lithotritist can realise the value of the cylindrical handle which they introduced. For some years Sir Henry Thompson practised lithotripsy, removing much of the debris between the blades of the lithotrite and leaving the rest to be expelled by nature's efforts, and it was not until 1866 that the late Mr. Clover's name began to be associated with the operation of lithotripsy. In THE LANCET of May 11th of that year he first described his apparatus for evacuating the debris after the crushing of a stone. No one has ever done sufficient honour to the memory of Mr. Clover. He was an Englishman educated at University College Hospital, London, full of ingenuity and resource. His inventions were numerous and he was a pioneer in the modern art of anaesthesia, and in that art his inventions are still in use and are of great value. In turning his attention to anaesthetics it seems to me uncertain whether that art gained or general surgery lost the more. At any rate, his apparatus for evacuating stone after lithotripsy is unquestionably the prototype of all modern evacuators, and in it lay the germ of the whole of modern lithotripsy. It is curious in reading the early literature of this subject to note how right Clover was in everything he taught and pointed out from the very beginning. Twelve years afterwards, when Professor Bigelow of Boston introduced his evacuating apparatus, it consisted of Clover's syringe with the receptacle of glass below and the top connected with the evacuating catheter by a long flexible tube. Clover had taught and explained that the nearer the glass receptacle was to the penis the better, and after more experience Professor Bigelow accepted Clover's teaching and did away with all connecting tubing. Clover taught that the smaller the evacuating tubes, the less water would they contain, and therefore the brisker the current within them. Bigelow's immense tubes have been found unnecessary and Clover's smaller ones have been employed. Clover's tubes were short, Bigelow's were long, and now all our tubes are as short as possible. Every one of Clover's tubes was fitted with that most important adjunct, a flexible stylet. Bigelow's tubes had no such stylet, though he spoke of clearing his

straight tubes with a rod, and now no lithotritist would use a tube without its being fitted with a flexible stylet, again showing how right Clover was. Clover's tubes had lateral plates or rings at the distal end. Bigelow's had not these lateral plates which permit of the easy rotation of the tube when in the bladder and of the compression of the penis, rendering the route to the bladder all the shorter; now every operator uses these plates or rings. I think all this makes it quite clear that even Bigelow himself, and certainly all his followers, had to go back to Clover's principles, and for these principles, I assert, sufficient acknowledgment has never been made to our distinguished countryman. I believe Clover never operated for stone in his life; if he had been an operator it is more than likely that using his evacuator, and with the assistance of anaesthetics, he would have anticipated Professor Bigelow by 12 years; instead of that he handed his apparatus to Sir Henry Thompson and contented himself with the administration of anaesthetics. The largest of Clover's evacuating tubes is No. 16, English, and I have the pleasure of showing it to-night, for he left a written request that I should have all his surgical instruments. This size is the one I still use. I rarely employ No. 17 or No. 18 and never any larger size. It is quite untrue to say that with Clover's apparatus only a little sand was washed out. With his No. 16 tube large fragments were removed and the apparatus was a very useful one. At this time (1866) Sir Henry Thompson was beginning to employ anaesthetics during his sittings of lithotripsy, but only in private practice. In the hospital he still operated without chloroform, and in employing Clover's bottle there he found that while the patient bore the introduction of the lithotrite in the crushing of the stone with fortitude he would often complain, and that bitterly, when the bladder was distended in the operation of evacuation. This led him, thoroughly inspired with the importance of gentleness and of reducing the urethral shock to a minimum, to employ the evacuator without great enthusiasm. Still the instrument gradually forced itself into his esteem, and when I joined him we took it to every operation and invariably employed it. Our practice then was nearly all in private and the patients, therefore, were always anaesthetised. Here is a letter from Mr. Clover to me dated Jan. 29th, 1882:—

MY DEAR BROWNE.—On referring to my notes I find that I gave the anaesthetic 130 times whilst Sir Henry Thompson performed lithotripsy in the years 1876 and 1877, and in nearly all these cases he made use of the aspirator to remove fragments. The exceptions would not amount to 10 per cent.

Yours truly,

J. T. CLOVER.

During this period both Sir Henry Thompson and I would often crush a stone and wash it out entirely at one sitting. Mr. Clover, in a letter to the *British Medical Journal* of Nov. 16th, 1878, refers to my doing this, but we thought nothing of it, and it was only if a patient suffered severely from cystitis after a sitting of lithotripsy that Sir Henry Thompson would, as it were, harden his heart, send for Mr. Clover to anaesthetise, and then and there clear out all the remaining debris, thinking it better practice to subject the urethra and bladder to considerable disturbance rather than allow the irritating fragments of stone to remain. But this was the exception and not the rule, and here we see distinctly that Sir Henry Thompson had the defects of his virtues, for if he had been less gentle he would have been more bold. And so we went on for three years, when in the autumn of 1878 Professor Bigelow proposed to treat calculi within the limits of lithotripsy by crushing and evacuating at one sitting. The principle was soon recognised to be of the very first importance, and taking the profession all over the world as a whole it was accepted with remarkable openness and fairness of mind. There is no doubt that Sir Henry Thompson was surprised when he found how near he had been to the discovery of this great principle; we cannot say, without seeing it at all, for he had seen it, veiled, in a mist, but without realising its greatness and universal applicability. He would doubtless have accepted it at once had not the great principle unfortunately been overloaded by Professor Bigelow with the use of huge lithotrites and of large evacuating tubes. These large instruments offended Sir Henry Thompson's feeling of surgical respect for the male urethra and excited his dread of urinary fever. In my opinion Professor Bigelow was not altogether right or Sir Henry Thompson altogether wrong. As regards myself, I have done my work since 1878 acting upon Professor Bigelow's principle, but with my lithotrites and my evacuating tubes practically

unchanged, but employing Professor Bigelow's improvement of Clover's bottle, the improvement in that instrument consisting in putting the rubber syringe above the glass receiver instead of horizontally beyond it, while at the same time I have taken away Professor Bigelow's internal tube, reducing the interior of the tube to its original simplicity. Throughout I have been faithful to Sir Henry Thompson's teaching and have never failed in my respect for the male urethra, always using the smallest instrument practicable and in the gentlest manner. Bigelow's suggestion was, after all, only an extension of Thompson's teaching. Thompson was kind, Bigelow apparently more cruel was kinder still, to the parts concerned. Professor Bigelow, in addition to the use of large instruments, proposed to call his alteration in the method of lithotripsy by another name altogether—namely, litholapaxy (*λῆθoς* stone, *λαπάξω* to carry off). This, I think, was altogether a mistake and unfair to lithotripsy which was not superseded or rendered obsolete, but simply had its field of usefulness extended. The term "locomotive steam-engine" describes the crude "Puffing Billy" of George Stevenson, but it is quite as applicable to the most modern flyer just turned out of Crewe. Just so an extension of the operation of lithotripsy which is still essentially a crushing operation needs no other name. I think, however, as I shall explain further on, that we want another name such as litholapaxy, but not in the sense employed by Bigelow.

It has often been asked, "What is a stone in the bladder?" My definition is that a stone in the bladder is concrete calculous matter which the patient is unable to get rid of naturally. A stone in the bladder may therefore weigh anything from two to three grains to several pounds. Even if a stone has left the bladder and being arrested in the urethra is pushed back into the bladder prior to its removal, it should still, I think, be considered a stone in the bladder. In fact, directly a renal stone is extruded from the ureter it becomes a stone in the bladder. When once the presence of a stone in the bladder has been detected the best plan to remove it has to be considered. It has not been generally recognised that there are really three ways of removing a stone from the bladder. It may be removed by vesical incision, lithotomy; it may be crushed and washed out, lithotripsy; and it may be washed out whole through a tube; and it is to this latter proceeding that I would confine the term "litholapaxy." If these three operations are not admitted to be distinct, where, then, are you to put the calculi pumped out through tubes? They certainly cannot be entered under "lithotripsy" and they certainly cannot be admitted under the heading of "litholapaxy," if there you record your lithotrities, without obvious unfairness and confusion. When Professor Bigelow established the fact that it was safer to crush a stone and suck out every particle in one operation than by several he wished to distinguish his single-sitting operation from the older and many-sitting one, and being by no means certain (only having an experience by himself and others of 14 cases) that it would entirely sweep away the old method named his operation litholapaxy, which merely means the evacuation or removal of stone. This new term might have been justified if lithotomy had been swept away as well as the old lithotripsy, but as this is not the case I propose that the terms "lithotomy" and "lithotripsy" shall stand, "lithotripsy" meaning Bigelow's lithotripsy, and that we confine the term "litholapaxy" simply to those cases where a stone or stones can be pumped out entire through tubes.

Litholapaxy, in my sense of the term, is the simplest and safest of the three methods, and if the stone or stones be small the operator should always attempt removal by means of tube and aspirator, and should only crush if the stone be too large to come through a No. 16, No. 17, or No. 18 (English scale) tube. Lithotripsy, that is to say, Bigelow's lithotripsy, lithotripsy at a single sitting, is the operation for boys and girls, women and men, in all uncomplicated cases of stone in the bladder. Operators vary in skill and experience, and one man may be able to deal successfully with a large or a hard stone which would baffle a less experienced surgeon. Much must depend upon the individual, and the surgeon will be well advised if he subject his patient to lithotomy in all cases where he feels uncertain that he will be able to break and bring away every particle of stone at one single operation, for that is the essence of modern lithotripsy.

It is when faced with large stones in elderly and feeble men, and particularly when there has been long-standing prostatic or other obstructive disease, that I think the modern

lithotritist should pause. Supposing that the stone is not mechanically beyond the limits of the lithotrite it must be remembered that the old man's urethra ill bears the repeated introduction of large lithotrites and tubes. The prostate may be so disturbed that no urine is passed afterwards except by catheter, and the mucous membrane of the bladder may be so injured that phosphatic deposits readily occur and plague and torture the remaining years of life. In many of these cases the interests of the patient will often be best consulted by the removal of the stone through a suprapubic vesical incision. Then there are many cases where it is impossible to clear thoroughly an old bladder from stone by instruments introduced through the natural passages. There is the post-prostatic or trigonal pouch illustrated by me in THE LANCET of April 18th (p. 867) and 25th (p. 922), 1891; there is the lateral prostatic pouch described and illustrated by me in the *British Medical Journal* of Oct. 12th, 1895; there is the post-trigonal pouch; and there are the regular sacculi, which consist of the protrusion of mucous membrane between the muscular fibres of the bladder. In all these pockets stones or fragments of stone may lodge and may defy the most careful attempts of the best lithotritist, not only to remove them, but even to detect them. The entrance to many of these pouches is very small and can only be got at by a suprapubic incision. Then the bladder itself in many of these cases is actually coated with phosphatic matter which cannot be got away with the lithotrite. I would say, therefore, that if on examining an elderly man his urine is found to be clear and free from pus and the stone is felt to be of uric acid or of oxalate, and not large, say, not over three ounces, it will probably be safe to perform lithotripsy. But if the urine is purulent and alkaline, the prostate very large, and the stone large and phosphatic, I think in most cases the best result will be attained by a suprapubic lithotomy.

One of the old axioms in the art of lithotomy was that you should never cut for the stone without having felt the stone with staff or sound immediately before making the incision. The following experience shows that even this valuable old rule has its exceptions and proves what I have just stated, that we cannot dispense with lithotomy. I was called by Mr. Noble Bruce to see an aged gentleman. Feeling sure from his symptoms that he had a stone in his bladder I sounded him and at once came in contact with a stone which appeared to be one of fair size. I made all arrangements to perform lithotripsy, and on the appointed day the patient was anaesthetised and I commenced proceedings, but do what I would I could find no stone. I tried every position of the patient and made rectal pressure in vain. The situation was one of great embarrassment and the anxious friends were eager for the news that all was safely over. After a most patient but fruitless search I was obliged frankly to tell them that I was satisfied that I had not been deceived, that there was a stone there, but that owing to a pouch or pocket of some kind I could not on this occasion even touch the calculus, much less seize and crush it. The patient took a day or two to consider matters and then consented to my performing suprapubic lithotomy. I found an extraordinarily deep post-prostatic pouch and at its bottom a stone measuring five inches in its largest circumference. The patient made a good recovery. It is the difficult cases that must be cut, and it is precisely the difficult cases where suprapubic lithotomy is the operation. I look upon perineal lithotomy as obsolete. No finger is long enough to explore thoroughly the bladder through a perineal incision and even if it be admitted that it is long enough to make a complete diagnosis, it is certainly not long enough to do any work in the bladder, to turn a stone out of a pouch, or to stretch and dilate the neck of such a pouch before getting out the stone. I have had several cases where nothing could have been done from the perineum, but the finger introduced suprapubically was able to get directly to the stone to stretch the neck of the sac, and finally with scoop or forceps to aid in the extraction of the stone. On one patient I was once obliged, in the course of five years, to perform three suprapubic lithotomies. He was an old stricture patient, and 10 years before I saw him had had a perineal section performed. From long-standing urethral obstruction the bladder had become badly pouched. In the trigone of the bladder there was a large pocket, which caught and retained the rather large calculi which constantly came down from the kidney. It was impossible to get these stones away except by suprapubic incision, they could be detected by the vesical sound, but could not

be seized by the lithotrite. With reference to the return of stone after operation I do not think statistics are important. It must be remembered that after either crushing or cutting the same constitutional conditions remain, and that the constitution may just as easily after one operation as the other form another stone. The same local conditions will also remain, so that if a phosphatic calculus quickly follows the removal of a phosphatic stone by lithotripsy it does not follow that lithotripsy is to blame. If, on the other hand, phosphatic calculus does quickly follow the removal of an acid stone by lithotripsy, it is very probable that either the vesical mucous membrane was injured, became inflamed and offered a rough surface for the deposition of phosphates from the urine, or that fragments and debris were left behind. If lithotripsy be undertaken it must be on the understanding that the operation must be completely finished, every particle of the stone must be removed. For this purpose it will be well to fragment and not to pulverise the stone. Pulverisation has been recommended, but this fine sand or mud is very difficult to entirely remove, it gets entangled in the mucous membrane and attracts phosphatic deposit, while fragments come away easily and are less likely to be left behind in the bladder. If a surgeon has been led by error in judgment to perform lithotripsy in a case not altogether suitable for the operation, and if he thinks he has unavoidably left some particles of stone behind, or, indeed, if he has the least suspicion that such may be the case, I advise that in four or five days after the operation, either with or without the aid of an anæsthetic, an evacuating tube be introduced and an aspirator applied. It will be found that particles difficult to get away at the time of the operation will have become loosened and will come away readily. It is often justifiable to undertake lithotripsy even when all the conditions favourable for lithotripsy are not present. The patient may be too feeble for the surgeon to think him fit to bear incision. In these cases a second or final sitting of lithotripsy to ensure as far as possible the removal of every particle of stone will be a wise proceeding. We thus see that in surgery as, in nature, there are no hard-and-fast lines of demarcation, few absolute rules, and that the rule of modern lithotripsy to remove a stone at one operation has its wise and very proper exceptions. When the stone is very large I am altogether in favour of suprapubic lithotomy. By this incision we have complete command of the bladder, there is little hæmorrhage, the stone is easily manipulated and, if necessary, can be broken up and washed out. The delivery of a large stone suprapubically is not always an easy proceeding. I do not like forceps, which are apt to project beyond the stone, and so unnecessarily tear the bladder. The best instrument is a scoop, placed well under the stone, while the stone itself is steadied by the operator's left forefinger. There are many forceps for breaking up a stone after the bladder has been opened by the knife, and there is no reason why Forbes Keith's giant lithotrite should not be used in this situation rather than from the perineum as practised by him.

India has for centuries offered an unrivalled field for the performance of stone operations and there are surgeons there who can boast of such lists of cases that no surgeon in Europe or America can expect to equal. Dr. D. F. Keegan writes: "We need not look to England or to any country in Europe for guidance"; and it is he who has been chief in establishing as one of the principles of lithotripsy that it is as applicable to children as to adults. Upon his suggestion the smallest tubes and lithotrites have been made, and children of the tenderest years, and even months, are now relieved of their vesical calculi without the knife. Dr. Keegan's teaching, I am satisfied, is as applicable to all as it is to Indian children, but when we come to adults, where the nervous system becomes involved through the sexuality of the urethra, and when the bladder from long-standing prostatic trouble becomes malformed and diseased, then I am satisfied that Indian experience will prove a false and dangerous guide. To paraphrase Dr. Keegan's remark, we need not look to India for guidance. I have been found fault with for speaking of the tolerance of the Indian bladder. I have used the phrase in no carping spirit, for I have sincere admiration for the brilliant work of our Indian surgeons in calculous disorders; but when these surgeons tell us that we make too much of sounding for stone, that it is a trifling affair and needs no special care; when they tell us that vesical pouches and sacculi are easily cleared by the lithotrite of stone and that there is no need to lithotomise; when, indeed, they

attempt to teach us that there is no need for lithotomy at all and that it is obsolete, then I say it is clear to me that they know little of the sensitive European or American and have failed to realise all the vesical troubles of extreme old age. The average stay in hospital of Dr. Keegan's adult cases was only 53 days—far too short a time for safety in England. Dr. Forbes Keith in his interesting paper on the Complete Abandonment of Lithotomy<sup>2</sup> relates such cases as the following. Case 1.—A native, aged 60 years, had his urethra opened by perineal incision. A phosphatic calculus, weighing two ounces, was crushed, and the bladder was evacuated of debris by instruments, some as large as No. 20, passed through the perineal wound. He went home cured on the third day. Case 2.—A youth, aged 18 years, afflicted with a huge vesical calculus, was so ill that after consultation with colleagues it was thought that operation must be followed by death. The urethra was opened from the perineum, a lithotrite was passed through the wound into the bladder, and the stone was seized and broken up by the repeated blows of a hammer. Three ounces of debris were removed and after two hours' work the patient was put back to bed. Four days afterwards the remaining four ounces of stone were similarly attacked and removed in one and a half hours. In three days the patient left the hospital, passing all his urine by the penis and being free from pain. No English urinary organs could be subjected to such treatment and recover in the time mentioned. To English surgeons this vesical tolerance in India is wonderful; we watch and we admire, but we must not be tempted to imitate. I am convinced that if we do we shall push lithotripsy to dangerous extremes and bring it into discredit. Lithotomy will continue to live, it has existed for thousands of years. It is the useful partner, not the jealous rival, of lithotripsy and litholapaxy.

## A Post-Graduate Lecture

ON

### THE ADMINISTRATION OF ANÆSTHETICS IN OPERATIONS ABOUT THE MOUTH, NOSE, AND THROAT.

*Delivered at the West London Post-Graduate College on  
Oct. 21st, 1901,*

By RICKARD W. LLOYD, M.R.C.S. ENG., &c.,  
LECTURER ON ANÆSTHETICS AT THE WEST LONDON POST-GRADUATE  
COLLEGE; ADMINISTRATOR OF ANÆSTHETICS AT THE WEST  
LONDON AND ST. MARK'S HOSPITALS.

GENTLEMEN,—In selecting the title of this lecture the fact that it is the first upon anæsthetics to be delivered as part of the ordinary post-graduate course of this college was overlooked. However, you may consider it a suitable subject of introduction as the cases in this class are among the most painful and ghastly in surgery and are thereby rendered almost inoperable without anæsthesia. They include operations which may immediately and directly save life, such as tracheotomy, and those which may also do so, or at least prolong it, such as operations for cancer in various situations in these regions and some which are for the relief of deformity such as hare-lip and cleft palate. With the advance of knowledge in nose and throat diseases very many operations are now performed which are for the comfort and well-being of sufferers and which no doubt indirectly prolong life. Many are for the removal of obstructions, such as arise from enlarged tonsils, adenoid growths, and abnormal conditions of the turbinate bones. These operations are, indeed, by far the most numerous in this class, and, being operations of expediency the chief danger of which lies perhaps in the anæsthetic, it is impossible to over-estimate the responsibility of the anæsthetist upon whose skilful administration greatly depends the opportunity for the successful conduct of operative treatment.

The administration of anæsthetics in these operations is particularly interesting because often more than one

<sup>2</sup> THE LANCET, Sept. 30th, 1893, p. 800.

anæsthetic and several methods of administration are beneficially called for in the conduct of the same operation, and on account of the various positions necessary during administration and operation. Ether is, no doubt, safer than chloroform, but where any of the operations we are considering takes more than a very few minutes neither gas alone, nor gas and ether, nor ether alone will be convenient during the operation on account of the necessary apparatus being in the way of the operator, and therefore chloroform is frequently used throughout the more prolonged operations or for continuing anæsthesia which has been induced by ether or gas and ether. Either gas or ether, as you are aware, is generally and best administered by what are known as closed methods, and chloroform (the administration of which by a closed method is too dangerous to be practised) should always be given by one or other of several open methods, on which account it is more applicable whenever the supply of anæsthetic has to be continued during an operation upon the nose, mouth, or throat. When ether has been given as a preliminary it is surprising how little chloroform is generally necessary for continuing anæsthesia, and not only is this so but the stimulating effect of the ether makes the administration of chloroform safer than it would otherwise be. The former advantage will be more appreciated by recalling some of Snow's conclusions.<sup>1</sup> He calculated that it was necessary for his second degree of narcotism that the blood of an average adult patient should contain about 12 minims of chloroform; for the third degree, 18 minims; for the fourth, 24 minims; and for the arrest of respiration, 36 minims. In Snow's first degree consciousness is not abolished; there are disturbances of special senses and sensibility. In his second degree the mental functions are impaired, not suspended. In the third degree voluntary movement is suspended, involuntary movement continuing. In the fourth degree the breathing is stertorous, the pupils are dilated, and the muscular system is relaxed; and in his fifth degree the breathing is difficult, feeble, or irregular, sometimes only diaphragmatic, respiration then ceasing and soon the heart also, as in death from asphyxia. The Royal Medical and Chirurgical Committee<sup>2</sup> found that atmospheres containing from 2 per cent. to 4 per cent. of chloroform vapour were attended with little or no risk to life, that 5 per cent. was sometimes necessary, and that stronger atmospheres induced alarming symptoms. Now, when a patient has been anæsthetised with ether much smaller quantities of chloroform need be introduced into the blood to keep up the different stages of anæsthesia than when chloroform is used throughout. Ether causes many patients, especially those with nose and throat disorders, to become very rigid, cyanosed, and more or less congested and swollen about the respiratory passages, and in such cases those symptoms often disappear when the ether is exchanged for chloroform after a few inspirations of the latter, but even in such cases the preliminary administration of ether is an advantage. There are special circumstances associated with these operations that may give rise to respiratory embarrassment, for it may occur on account of the relative positions into which the parts may be placed in the course of the operator's manipulations, or more or less occupation of the air-way by sponges, instruments, the fingers of the operator, blood, mucus, saliva, vomited matters or teeth, especially first teeth in children, that being loose may easily be pushed out of their places by the gag or instruments or fingers; or it may be induced by interference, in the course of the operation, with important nerves that directly influence the performance of respiration and the action of the heart; or by any combination of these conditions.

You may therefore be reminded that the function of respiration is dependent upon a free air-way and is controlled by the respiratory centre which is influenced by all afferent nerves, especially the vagi. The phrenic and intercostal nerves are the chief efferent nerves of respiration. Either excess of carbonic acid or deficiency of oxygen in the blood at first stimulates the respiratory centre but either in greater degree will paralyse it. And the circulation of the blood in the vessels is produced by the heart which is regulated by intrinsic nerves, giving rise to automatic rhythmical contraction, and extrinsic nerves, the latter including a cardio-inhibitory centre in the medulla with its efferent inhibitory

nerves—the vagi—and a cardio-augmentor centre also in the medulla with its afferent augmentor nerves—the sympathetic. The calibre of the vessels is regulated by the vaso-motor centre connected with the vaso-motor nerves—including vaso-constrictor and vaso-dilator—through afferent and efferent nerve-fibres.

The interference with respiration and loss of blood necessarily associated with these operations prolongs the state of anæsthesia and renders a smaller supply of anæsthetic effectual in keeping it up than is necessary when painful operative proceedings are being carried out in other parts of the body while respiration is free or less obstructed. The risk of blood finding its way into the larynx, trachea, and bronchi in these operations makes it very advisable that the supply of anæsthetic should be small to avoid abolishing the pharyngeal and laryngeal reflexes. It is necessary only to supply sufficient to keep the patient quiet enough to avoid interrupting the operator. A patient may be able to move, to mutter, and even to spit without conscious sensation, and it is sufficient to keep up a degree of anæsthesia which just prevents these embarrassing actions. In some cases it is at times difficult to do this even by keeping up a constant supply of chloroform by means of Junker's apparatus through a tube in the mouth or nose. On the other hand, cases more commonly occur in which, with the same apparatus, it is advisable to allow frequent inspirations of air only from time to time, or dangerously deep anæsthesia results.

As long as the degree of anæsthesia indicated as suitable is maintained, the anæsthetist has always, so to speak, something in hand should emergency arise. In other words, the nerve-centres are not so deeply affected by the anæsthetic but that they may rapidly regain control on the relief of obstruction and the better supply of air, and there will be more time to bring about this, the best of all correctives for dangerously embarrassed respiration and heart during anæsthesia. When the centres are being exhausted by excessive hæmorrhage the arrest or control of the bleeding becomes of first importance. As soon as the bleeding ceases the blood-pressure rapidly rises.

We have to consider in any given case the thorough preparation of the patient, especially with a view to prevent vomiting, particularly of solids, which has been responsible for some of the recorded fatalities; the anæsthetic or sequence of anæsthetics to be employed; and the position of the patient during the induction of anæsthesia and during the operation. Local anæsthetics, cocaine or others, suffice for some cases, which cases must be left to the decision of the operator who will wisely be guided by the extent of the operation and the age and temperament of his patient. The application of a local anæsthetic as a preliminary to the administration of gas or other transient dose of anæsthetic is sometimes useful, allowing of a more prolonged operation. Cocaine applied to the throat impairs the laryngeal and pharyngeal sensation, and in excess causes respiratory embarrassment and cardiac failure, so that where it is to be followed by the administration of chloroform it should be used very sparingly and with the greatest caution. The selection of general anæsthetics will depend on the state and age of the patient and the nature and duration of the operation, and any special preference of the operator is to be considered. For short operations, such as the removal of the uvula, tonsils, or adenoids, for turbinectomy, and for the removal of some polypi, gas is sometimes sufficient. Where tonsils and adenoids, both inferior turbinate bones, or numerous or difficult polypi have to be removed gas generally gives insufficient time, and therefore gas and ether, or ether, followed if necessary by chloroform in the manner to be presently described, or chloroform throughout, especially in young children, is advisable. For removal of portions of the lip, the tongue, or either jaw, or similar operations, including tumours in this region, lupus of the nose, deflected septum, &c., either ether or gas and ether followed by chloroform are convenient sequences. Chloroform throughout may be given, especially in operations for hare-lip and cleft palate. Where there is a breach of surface on the nose or mouth the dressing may remain on while the lint, mask, or face-piece is applied, whether chloroform, ether, or gas and ether be used whilst first anæsthetising the patient. In some such cases, as, for instance, extensive removal of the tongue or extirpation of the larynx, the surgeon may consider it expedient to perform tracheotomy as a preliminary, and then with a Hahn's tube in the trachea, or a sponge in the pharynx if an ordinary tracheotomy-tube be used, the difficulties and immediate dangers of the operation are greatly reduced, as blood is

<sup>1</sup> Hewitt: *Anæsthetics and their Administration*, Macmillan and Co., 1901.

<sup>2</sup> *Ibid.*

thereby prevented from getting into the air-passages and the effect of spasm of the glottis, &c., is removed. The administration may then be continued by holding lint sprinkled with chloroform in the neighbourhood of the tracheotomy tube or by means of Junker's apparatus through a tube introduced occasionally into the tracheotomy tube. The administration is thus simplified, as it is not interfered with by any of the various complications which may arise in ordinary cases in the larynx or above it—e.g., spasm, falling back of the tongue, &c.

When chloroform is used throughout until the operation commences it may be given either on lint, a Skinner's mask, or otherwise, but during the operation it is much preferable and often necessary (as lint or other like apparatus would now be in the way of the operator) that it should be continued by means of a Junker's apparatus, the tube being detached from the face-piece and that being replaced by a few inches of gum-elastic catheter or pewter tubing, which is then held in the mouth or nostril, or the tube of the inhaler may be attached to a gag invented by Dr. Frederic Hewitt, which is a modification of Fergusson's gag, there being tubes running parallel with the jaws of the gag through which the chloroform vapour is pumped. When a gag is unnecessary the tube may be passed through the space of a deficient tooth or, if necessary, a prop may be used to avoid collapse of the tube from closure of the teeth upon it. If preliminary tracheotomy has been performed the administration will be continued as just described. If gas and ether or ether has been first used, when the change to chloroform is made at first it may be sprinkled on lint and it may be given in this way, though not very comfortably, throughout the operation, but it is a great advantage to all concerned to use the Junker as mentioned above, and this may be done from the time that the change from the ether is made. Care should be taken that the bottle of the Junker's apparatus is only one-third filled with chloroform and that the india-rubber tubes are correctly applied to the metal tubes, or in using it liquid chloroform instead of vapour may be administered. A fatal result of using the apparatus with the tubes incorrectly applied was once averted by the prompt use of the stomach-pump, tracheotomy, and artificial respiration.

In regard to position, it is usually most convenient to anaesthetise the patient in the ordinary or dorsal position and when ready to change the position to that selected for the operation, in which the convenience and wishes of the operator should be considered as far as possible, and it will often be necessary to vary the position during an operation. In operations for the removal of tonsils and adenoids there are several positions favoured by different operators and anaesthetists, chiefly with a view of avoiding complications arising from the effects of hæmorrhage. In one position the patient is on the side, the pillow having been removed; another is the dorsal position, the head being allowed to fall back over the end of the table; another with the shoulders slightly, and the head more considerably, raised on pillows, &c. I prefer the position on the side with the pillow removed and the face inclined towards the table; there is also some tilting of the head sideways towards the table on account of the shoulders raising the neck in this position, which is an advantage as it also favours the flow of blood away from the air-passages. And, generally speaking, when blood is freely flowing into the back of the mouth I think it a good plan to turn the patient more or less into this position to facilitate the flow of blood from the side of the mouth and the nares. It is generally unnecessary to do any sponging or swabbing out of the blood in this position, while in others it is often imperative. In the position with the head hanging over the end of the table hæmorrhage is encouraged, and there is danger of injuring the cervical spine by undue extension or strain.

For tracheotomy chloroform is preferable, and enough only to keep the patient quiet need be given, especially if the patient is in an asphyxial condition, when it may even be advisable not to delay at all and to operate without an anaesthetic. For the removal of either the tonsils or adenoid growths gas may amply suffice for a dexterous operator; indeed, it may sometimes be possible for him to remove all of these from the same patient under one administration of gas only, but an anaesthetic affording a more lasting anaesthesia allows of a more thorough and satisfactory operation, after which the growth will not be so likely to recur.

No hard-and-fast rules can be laid down as to the use of

particular anaesthetics at different ages, as many circumstances besides age may direct the selection of one anaesthetic rather than another. Generally speaking, chloroform is preferable throughout the operation for children up to six years of age or older. After the age of 10 years, in some cases earlier, gas or gas and ether or ether alone may be administered, and supplemented, if the length of the operation demands it, by chloroform. Often chloroform may be preferred throughout. When gas or gas and ether only are used a prop placed between the teeth before the administration allows the gag to be introduced without loss of time on removing the face-piece of the inhaler. As stated before, the patient should not be deeply chloroformed, and it is often unnecessary to give more chloroform during the operation, which is performed during the several minutes which it takes for the patient to recover sensation. There may be more or less extensive movements of the patient towards the close of the operation, so that a nurse or other assistant should be entirely devoted to controlling these should they occur. The patient should be kept in a position that facilitates the flow of blood away from the air-passages, and the gag should be retained until the patient is sufficiently recovered to be relied upon to prevent blood entering the larynx, &c.

When a cleft palate is being operated upon a firm pillow under the shoulders will allow the head to fall back, affording the operator better access to the region and allowing of the accumulation of blood in the direction of the pharynx and nares. Frequent sponging away of the blood is necessary. Chloroform will probably be used throughout the operation. During turbinectomy it is better to have the patient recumbent to avoid faintness as a result of the loss of blood and for other reasons already mentioned. It is also advisable to keep the mouth open with a gag, and this is so in any operation during which much blood may flow into the mouth or pharynx. In operating for deflected septum if the posterior nares are plugged as a first step much danger and trouble that may arise from hæmorrhage will be avoided. The chloroform is continued by means of a Junker's apparatus, the tube of which is held in the mouth which may be kept open by either a gag or a prop, if necessary. The due performance of respiration should always be looked for. The pulse (which quickens at first during the administration of chloroform and becomes slow when the patient is anaesthetised), will be a guide to the general state of the patient as well as to the depth of anaesthesia, in estimating which the sensibility of the conjunctiva and cornea will assist, and it is always reassuring to observe that the pupil is not dilated.

In the administration of anaesthetics for more prolonged and extensive operations the foregoing considerations should be kept in view and the methods described applied as occasion arises. Avoid danger and complications by inducing only a moderate depth of anaesthesia. By favourable position and sponging, if required, facilitate the removal of blood from the neighbourhood of the air-passages. By holding forward, on both sides if necessary, the lower jaw, this manœuvre will tend to prevent or relieve obstruction of the glottis which may have arisen from falling back of the epiglottis and of the tongue. Should difficulties arise discontinue the anaesthetic and assure yourself on those points; notice, also, the state of the complexion, respiration, pupil, and pulse. If necessary proceed to perform artificial respiration, taking care to have the tongue well drawn out and to perform it slowly—i.e., at about the normal rate of respiration. Laryngotomy may have to be performed, after which operation there is, of course, no need to draw forward the tongue while continuing the artificial respiration, and if a sponge be placed in the pharynx the entry, or further entry, of blood through the larynx into the trachea will be prevented.

After-effects are not generally severe and are modified by the nature, duration, and administration of the anaesthetic; the amount of blood which is swallowed influences the character of the vomit when vomiting occurs.

#### ISOLATION HOSPITAL FOR DEVIZES AND DISTRICT.—

At a meeting of the committee of the Devizes Joint Isolation Hospital held on Nov. 4th it was decided to erect an isolation hospital for the joint urban and rural districts at an estimated cost of £9400.

IMPRESSIONS ABOUT CHLOROFORM AND ETHER.<sup>1</sup>BY SIR WILLIAM MITCHELL BANKS, M.D.,  
F.R.C.S., LL.D.,

SURGEON TO THE LIVERPOOL ROYAL INFIRMARY.

So much has been spoken and written upon the subject of anæsthesia that the question seems a very hackneyed one—one that would excite little interest in a society like this. But such is not the case, and such will never be the case while people continue to die under anæsthetics at the rate at which they do at present. During the last 10 years these deaths in England and Wales have just doubled, which is clearly out of proportion to the increased use of anæsthetics in the decade. When there are no more deaths there will be more discussions. But that time, I fear, will never come; for, whatever the drug used, if it can take such a hold upon the nervous system as to produce insensibility to pain and abolish the power of movement, it must be so potent a drug that its use will *ipso facto* imply danger. As regards any discussion which may follow upon my remarks I would hope that it may not be restricted to chloroform and ether alone, for I have only selected these because I cannot speak from great experience about others, while I venture to think that I can about them. When I was a fourth-year student Professor Syme appointed me to be his chloroformist, and for six months I anæsthetised all his hospital patients. After coming to Liverpool I gave chloroform to nearly all Mr. Edward Bickersteth's private patients for six years, and saw all the operations performed at the Royal Infirmary. As assistant surgeon and surgeon to that institution and in my own private practice I must now have seen many thousands of cases of the administration of chloroform and ether. I have been over 34 years in Liverpool. Reckoning 42 working weeks in each year and reckoning that I have seen six cases in each week, the total number seen is about 8500, or nearly one-half of the chloroform and ether cases recorded in the British Medical Association report. I feel sure that you will not think that I mention these facts in any spirit of boastfulness. I do so merely to show that my experience has been sufficient to entitle me to put my own views before you as forcibly as I can. A certain amount of dogmatism is always a good thing, for it arouses the spirit of debate and so the truth comes out. This society of ours is an appropriate place wherein to discuss anæsthetics, for it is interesting to remember that the chemical product termed "chloroform" was first discovered and made by a Liverpool chemist, one Waldie, who managed the Apothecaries' Hall in Colquitt-street; and that Liverpool was probably the first place where the use of ether was extensively practised after having been long supplanted by chloroform in this country. In America ether had always retained its place as the chief anæsthetic and I well remember many years ago Mr. Reginald Harrison bringing to the infirmary an American surgeon, whose name I forget, but who showed us how to use it. He folded up a towel like a cone. Then he took a sponge and saturated it with ether. Wringing the excess of ether out of the sponge on to the floor, he put it inside the towel and stuck it down over the patient's face. We thought this a very wasteful process, and perhaps it was, but it was good sense after all, for it embodied the principle of "Plenty of air and plenty of anæsthetic," and that I believe to be the fundamental principle which underlies all others in the giving of anæsthetics.

## PHYSIOLOGICAL EXPERIMENTS AND STATISTICAL COMMISSIONS.

No one for a moment will consider me as holding in contempt either experiments or commissions as such, and what I say I say with regret, but my firm conviction is that neither of them has hitherto been of the least avail in aiding us in our search for the best anæsthetic or for the best method of using it. What special and particular good came out of the Hyderabad Commission I never could see. There is no possible comparison between a healthy dog or cat or any other animal and a diseased human being. They are not in

the least under the same conditions, and experiments upon them are therefore useless. Take on one side a healthy retriever with its heart and arteries all sound, and without knowledge of what is going to happen to it, consequently without the least fear or anxiety. Take, on the other hand, a middle-aged, somewhat corpulent woman with flabby heart and somewhat inelastic arteries. Suppose her to be the victim of some cancerous disease the knowledge of which has worn her out with anxiety and distress, and then let her pass a sleepless night before the operation, going over and over in imagination all the terrible process and making sure that she will die under the anæsthetic. Or take your drunken, whisky-sodden dock-labourer, with tissues so steeped in drink that one is almost tempted to believe in the possibility of spontaneous combustion, with cirrhotic liver, fatty heart, and albuminous urine. I cannot see any parallel whatever between the healthy canine animal and the diseased human animal, nor can I see how experiment upon the former will help us with the case of the latter. It is impossible. I trust that no lying anti-vivisectionists will take hold of my words and twist them to suit their own ends, as is their wont. For although I honestly cannot see where experiments upon animals have given us direct aid in our quest after securing safety for human beings I am very glad that they have been done. Unless it had been so we should always have remained uneasy under the fear that perchance we might have lost something of value from this source, seeing how much has been learnt from it in other conditions. Moreover, the most virulent anti-vivisectionist cannot complain of any cruelty here, seeing that the animals used have simply slept themselves peacefully and painlessly into extinction.

With regard to the report of the British Medical Association Commission on Anæsthetics, which has recently been made public, one cannot but feel the greatest admiration for the immense pains taken by the members of that body, which came into existence in 1891 and included among its members some of the most eminent men in our profession. One knows, however, as a matter of fact, that in all committees it is the secretary who does the real work. To Dr. Child, the secretary of the General and Executive Committees, and to Mr. George Rowell, the secretary of the Analysis Subcommittee, every medical man (and especially every man who has been a secretary himself) will give unstinted praise for their protracted and laborious work. But at the end what does it all amount to? *Heu! Nil.* In a very able analysis of the report Mr. George Eastes, the treasurer of the Commission, says concerning its conclusions: "The most important conclusion is the last, that by far the most important factor in the safe administration of anæsthetics is the experience of the administrator and that in many cases the anæsthetisation is of such importance and gravity that it is absolutely essential that an anæsthetist of large experience should conduct the administration." As a result of not having discovered anything that we did not know previously I have heard and read of not a little girding at this report. Now, I think that this is not deserved. While it is a great matter to find that certain drugs or methods of treatment are valuable in such-and-such a disease, it is no little thing to have found out that certain other drugs or methods of treatment which looked promising are quite useless. It prevents future investigators going painfully and laboriously over the same ground and it makes us feel comfortable in our minds in the knowledge that one path of information has been looked into, has been found wanting, and is now walled up. But it has been suggested that we still lack an experimental examination of the statement that by proper application of a volumetric method anæsthesia of any required degree can be certainly effected, and that we should carefully determine the percentage of chloroform in the fluids and organs of animals variously anæsthetised. By all means let the inquiry be made. All scientific knowledge is valuable. An investigation, though useless for the purpose for which it was originally intended, has often elicited facts which have proved very valuable for some other purpose. That the investigation now suggested is likely to be of any more value than its predecessors I do not for one moment believe. In the first place, I have stated that I do not think that deductions from experiments on animals in relation to anæsthesia can be used in the case of human beings. In the next place, the simple adage that no two people are alike prevents anything like a uniform treatment being applied all round. We know how the same dose of a drug will act upon various people in the most various ways—how even articles of diet which are

<sup>1</sup> A paper read before the Liverpool Medical Institution on April 25th, 1901.

nourishing and sustaining to the majority of people are practically poisonous to not a few. There are some persons whom the eating of an egg will make very ill. Now alcohol, after all, may perfectly well be compared with chloroform or ether or any anæsthetic. A glass of whisky and soda-water at dinner is a wholesome stimulant to many people and enables them to digest their food, but keep pouring whisky steadily into an individual and he will in time become unconscious, lose his muscular power, and be reduced to a state of anæsthesia. Nay, there are plenty of instances where barrels of spirit have been broached in the street and where unhappy wretches have drunk it to such an extent that they have lain down in the kennel and died poisoned. This is just what chloroform does, only it does it more rapidly. But how can we of set purpose regulate such effects with precision? In the case of a young, frail girl, absolutely unaccustomed to the use of stimulants, a single glass of whisky will make her practically drunk, while a seasoned coalheaver or foundryman will swallow a pint and make no sign. How could we "control the dosage" of whisky to two such people by any rigid physiological application of a volumetric method? So, also, the proper dose of chloroform can only be estimated and regulated by the person who is administering it, and for that he must depend upon his knowledge of the power of the anæsthetic which he is using and upon his judgment, gained by experience, of the ability of the patient before him to inhale certain quantities of that anæsthetic with safety. I am one of those who in things medical place more reliance upon the "impressions" of a sensible man with good powers of clinical observation guided by experience than upon any *a priori* physiological deductions. In June last Dr. Burney Yeo delivered an admirable address to the British Balneological and Climatological Society. He said with reference to the publication some 30 years ago of the Edinburgh Committee's research on the action of mercury on the liver:—

The supposed results of this research were that mercury, so far from increasing the flow of bile, caused its diminution through its general depressing effect on the entire organism, and the reporters added that the practical advantage of demonstrating that mercury is not a cholagogue could not be too highly estimated. Now, gentlemen, what is the teaching of physiologists at the present as to the action of calomel? It is that although calomel does not really cause an increased flow of bile it acts on the bile-exPELLING mechanism and promotes the flow of bile into the intestines. Was more than this claimed in calling calomel a cholagogue? Well, we now no longer hesitate to prescribe calomel for fear of being thought "unscientific." Indeed, calomel is, I should say, nowadays used as extensively as ever it was in the treatment of chronic disease, especially in functional disorders of the stomach and liver.

By which words many persons have doubtless been much heartened and have taken their blue pills and seidlitz powders with a fuller sense of security in their effects. For after all medicine is essentially an empirical art; which brings us back to our simple but all-important keynote, "Plenty of air and plenty of anæsthetic."

#### WHETHER IS CHLOROFORM OR ETHER THE MORE DANGEROUS.

Some years ago there were quite serious disputes as to whether death from chloroform began from the heart or from the lungs. These academic speculations need not trouble us. Be it chloroform or ether or alcohol it is absorbed by the capillaries of the lungs or stomach and is conveyed to all the nervous centres, which in due time it poisons and so abolishes their functions. It both enfeebles the heart and paralyses the respiratory muscles, so that clearly death does not take place from the heart alone or from the lungs alone, but from both. This statement, be it remembered, applies to pure and simple poisoning from an overdose of the drug and not to cases where the patient has died suffocated from his tongue being allowed to fall back.

As to whether chloroform or ether is the more dangerous the physiologists have long been aware that in the case of animals chloroform is infinitely the more dangerous, and therefore in experimental inquiries demanding an anæsthetic they use ether. As for the clinical statisticians, in their report they assign to chloroform a danger-rate of 0.582 per cent. and to ether one of 0.065 per cent., so that according to these figures chloroform is nine times more fatal than ether. But after all surgeons found this out for themselves in a very brief period after the reintroduction of ether into this country. Still, it is a comfort to be confirmed in one's view by the physiologist and the statistician.

Suppose it became necessary for a surgeon to put a person to death by means of an anæsthetic, which one would he choose? There is nobody who would not at once say,

"Chloroform, to be sure"; and the reason is simply this, that up to a certain point chloroform is a depressant, while ether is a stimulant. To discover this you have only to look at the face of the patient and to feel his pulse. Taking chloroform first, let us put aside certain cases where, after a brief period of inhalation, the pulse becomes stronger and steadier. This is due to the fact that the patient before the operation was a prey to serious mental distress and anxiety. When insensibility comes on fear vanishes and the heart works with better will. But, putting these special cases aside, it may be said that as a general rule as the inhalation of chloroform goes on the pulse weakens and the face becomes pale. With ether, on the other hand, the pulse becomes quick and full and the face becomes congested. Ultimately it and especially the ears become livid. In order to get students to grasp these differences I often speak to them of the White Man and the Blue Man. The White Man is being poisoned by chloroform and is always in a dangerous way. His heart is working very feebly and at any minute may give out. The Blue Man, it is true, ought not to have been allowed to become blue, but still he is not in such straits as the other. If he can get a little air into his lungs to oxygenate his blood it will still be very hard to kill him.

#### THE EARLY SIGNS OF DANGER.

With a few exceptions I cannot say that I have ever felt very anxious about the performance of any surgical operation, because I have never been ashamed to beat a retreat in time if things were going against me. But the anæsthetic always has been and always will be to me a serious source of dread. I have therefore always maintained a careful watch on the progress of the anæsthetisation. I believe that there are anæsthetists who maintain that they are supreme in their own place and will not be dictated to by the operating surgeon. Personally, I will have nothing to do with any anæsthetists making any such pretensions. A serious operation is a kind of pitched battle between the surgeon and death. The surgeon is the general; the anæsthetist commands a brigade. If the latter so mis-manages his brigade that the battle is lost, upon whom does the disgrace fall? Upon him? Not for a moment: upon the general, the surgeon. It is he who has to face the dead man's relatives and to explain matters as best he can in the coroner's court. And, when the event is spoken of afterwards, it is not mentioned as having occurred in the practice of the anæsthetist, but in the practice of the surgeon. I therefore hold that, in the matter of the anæsthetic, the surgeon should be master over the management of that, as over every other detail of the operation.

In all polite circles, when any unpleasant statement is made, the company present is always regarded as beyond implication, so I hope to offend nobody here by saying that I do not believe that all deaths from anæsthetics are due to unavoidable causes. After a death from an anæsthetic we are all familiar with the performance that goes on before the coroner and how the jury comes to the conclusion that the patient died from an anæsthetic properly and skillfully administered. In my own experience I have only had two deaths, both from chloroform, and I am quite willing to believe that they were unavoidable. But the number of hair-breadth escapes which I have seen is alarming to reflect upon. In some cases it seemed as if life had really gone and only by the most energetic measures was it brought back—measures which required all one's coolness and fortitude to carry out and which left one utterly exhausted with the mental and bodily strain. I am prepared to admit that in one instance the fault was my own. It was a case of cleft palate in a child where, although the patient was not breathing properly, I yet directed the chloroform to be continued in order that I might get in the last stitch in the uvula. Then came what is called the collapse—that is to say, the patient, not having had enough air for a good while, gave up the struggle. Luckily, the accident was due to the mechanical hindrance of a proper amount of air getting into the lungs and not to direct poison from too much chloroform. With two strokes of a knife I opened the trachea and by squeezing and dilating the chest-wall we got air to enter the lungs and the child recovered. The reports of fatal cases read all alike. They tell how, after the administration of a certain amount of anæsthetic (always astonishingly small, by the way) and occasionally of more or less struggling the patient, with whom everything up to a certain moment has been going as merry as a marriage-bell, "suddenly collapses." This is what I do not for a moment believe. In the

majority of cases he does not suddenly collapse. He has been in a really dangerous way for some time before he collapses, and the real cause of the collapse is the inability of the anæsthetist to recognise the early symptoms of danger and to avert it in time. That is my firm conviction. By anæsthetist I do not mean the special administrator of anæsthetics, so that, should any be here to-night, I pray they will not think that I am delivering an attack upon them. By anæsthetist I mean simply a person—any person—who happens to be giving an anæsthetic. I do not, furthermore, even wish to attach great blame to that person, for I believe that he acts in ignorance, from the fact that he has never been sufficiently trained to recognise the tremendous potency of the drugs he is working with and to know the precise moment when their administration crosses the boundary line of safety and enters the territory of danger. It is not so much his fault as his misfortune. Some men I have seen, it is true, who seem utterly incapable of sniffing danger afar off. It is not in them. They literally cannot see further than their noses. But in this the members of the medical profession are not in any way different from those of any other profession or business. Men enter it who have no real gift or aptitude for it and every now and then such men make serious mistakes, and always will do as long as human beings are what they are. But our business is not to look on at these mistakes and say that they are inevitable, but to strain every nerve to reduce their number. This is only to be done by looking at uncomfortable facts with open eyes and with a determination not to blink them.

#### TOO LITTLE AND TOO MUCH CHLOROFORM.

There is one kind of anæsthetist who has no appreciation of the axiom, "Plenty of air, plenty of anæsthetic." He drains out his chloroform by the drop. Having poured a few minims on the mask, he then pulls up the patient's eyelid and begins fumbling at his cornea; then he feels his pulse and thinks it is very rapid or else getting very weak, and so keeps the surgeon in constant hot water. The patient being now fairly awake gets a little more chloroform and the cornea-fumbling and pulse-feeling begin again. This process goes on for a considerable time until finally, by the time that complete anæsthesia has been attained, the patient has inhaled a large amount of anæsthetic and goes very deeply under. Then he "suddenly collapses." There is another kind of anæsthetist who seems utterly unaware that he is dealing with a poison which of itself will kill if only enough is given. Some patients take their chloroform very quietly with a somewhat shallow breathing. They lie motionless and the operation begins and goes on. All the time the chloroformist keeps pouring on his chloroform, although the patient is deadly quiet, until this one also "suddenly collapses." This variety of chloroformist absolutely refuses to see that when the patient is not feeling pain he should stop his anæsthetic. But he does not. He simply keeps pouring it on and consequently poisoning his patient, for whatever anæsthetic is over and above what is necessary for surgical purposes is poison. I think that the action of some surgeons is in part responsible for this. If the patient comes out and struggles a little many a surgeon gets angry with the anæsthetist. For my own part I always assure him that I will be quite ready to wait till the patient is over again, and meantime he is to play with a light hand. For in truth a great secret is always to keep the patient on the balance: just on the point of coming out. What does it matter if he does cry out occasionally? He will never remember anything about it afterwards and meantime you know that he is alive and well. When he is long deeply under, when he is long silent and motionless, then it is that the silence and immobility of death descend upon him with great suddenness. This steady administration of the chloroform when there is no need for it is a very grave mistake, for it puts the patient in the most critical position possible—viz., that which results from pure uncomplicated poisoning. In those cases, even when the patient has been rescued from immediate death, he will remain for hours and hours in a very dangerous condition, subject to constant relapses. This is because time alone will enable him to get rid of his superfluous chloroform by exhalation.

#### IMPERFECT BREATHING.

There is another condition where the patient is put in great danger—viz., the inability of the anæsthetist to recognise whether the patient is breathing fully and freely or only getting into his lungs a small modicum of air and that filled with chloroform. To kill a dog by suddenly

blocking up its trachea takes about four minutes and it is probably much the same with the human being. It is true that even the most ignorant or careless anæsthetist never completely deprives his patient of all breath for that time, but then it must be remembered that the patient is partially poisoned with the anæsthetic already, and if you annul a large amount of his respiratory action and still give him nothing but anæsthetic to breathe you are keeping him in a dangerous way, so that the form of "sudden collapse"—coroner's court collapse—to which I have alluded, is liable to come on at any minute. It is most distressing to hear a patient going on with this imperfect respiration while the anæsthetic is being quietly piled on and no attempt at relief given. Sometimes the stoppage is complete, and so great are the patient's struggles to get air that his chest-wall moves up and down with the frantic efforts which he is really making to respire, although lying perfectly quiet. Now open his jaws with a gag and pull his tongue well forward and you will hear such a respiration as makes you take a deep breath yourself from mere sympathy. I cannot at all understand the aversion which some people profess to entertain against the use of the tongue forceps. It has been denounced as barbarous and cruel in very severe terms. This is simply childish nonsense. If there is any safety to be got by pulling the tongue out, a little discomfort lasting a few hours should not be considered for a moment. Many years ago the American surgeon, Dr. Howard, in my opinion did a great deal of harm by promulgating the doctrine that pulling the tongue forward did no good. To begin with, I cannot conceive how any man who has once heard the gasp of air given by a patient whose tongue has fallen back and been pulled forward can doubt the efficacy of the process. In the next place, I made several dissections from the side of the neck on the cadaver, noted the position of the base of the tongue and saw how it was pulled up at once by the forceps applied to the tip. There does not seem to be any mystery about the process, except what is made. It is essentially a mechanical affair. The muscles that keep the tongue forward are not very strong. We see that practically when we have divided them in removing the fore-part of the organ, when its base falls back at once and when it is for a while necessary to keep a string in it ready to pull it up in case of the patient choking. It is partially drawn back and partially falls back on to the top of the epiglottis and closes that lid on the box of the larynx. Pulling forward the angles of the jaw does practically the same thing as the forceps, only in a very minor way, but in many cases where I have seen patients in danger from obstructed respiration I have also seen much valuable time lost from fumbling about the angles of the jaw in place of promptly opening the mouth and pulling the tongue well out. Even then some small gags with absurd handles about two inches long are often used with which great difficulty is experienced in getting the jaws apart. I believe that to the anæsthetist far more valuable than all complicated inhalers are a powerful big-handled gag and a first-rate tongue forceps. When the so-called "sudden collapse" has occurred even seconds are of value in getting air into the lungs and so oxygenating the poisoned blood.

#### PERIOD OF STRUGGLING.

A dangerous time in the giving of chloroform is the struggling period. Some persons sink quietly into anæsthesia without a sound or a movement. Others fight and struggle as if they were possessed and during the whole operation seem only to know two stages: they are either so deeply under that they are practically in danger, or out of this state they almost immediately jump into a distressingly lively condition which is a bar to further progress. What volumetric dosage will help us in these opposite conditions where the question is entirely personal to the patient and where the anæsthetist can only trust to his personal experience to carry him through? I think the danger of this struggling period is getting more fully realised now. When I was a student the unfortunate and excited patient was laid hold of by half a dozen dressers and nurses and forced down straight on his back again, while the chloroform was piled on hard by the anæsthetist. Nothing can be worse policy. Look at his contorted cord-like muscles and swollen veins; look at his rigidly clenched teeth, his glaring eyes, and the beads of sweat standing on his forehead. The efforts he is making to sit up are almost superhuman. His heart is almost bursting with its efforts. Let him sit up. He will not be more difficult to manage, but less so, for he

will not fight so much with his arms and legs. Take away the anæsthetic till he has got a few good gasps of air into him and then bring it back but not close down on his face, and as he shifts his head about to get quit of it keep following him with the utmost rapidity. In a little he will probably begin to talk or shout a little nonsense and then sink quietly and safely back on his pillow. I believe that following the old method was the reason why many persons sank back at the end of a struggle on their pillows dead.

#### DANGERS OF CHLOROFORM AND ETHER.

I think, then, that the great dangers of chloroform are: (1) absolute overdosing of the patient up to the poisoning point when there is no necessity for it as regards the operation; (2) an omission to allow the patient to be constantly and freely getting abundance of air into his lungs; and (3) violent repression during the stage of excitement combined with continued dosing with chloroform. Now it may be said that it is surely very easy to watch all these conditions; but it is not, from the fact that there are no two individuals alike as regards the way in which they take anæsthetics, just as there are no two people alike as regards their faces. Out of hundreds of thousands of persons whom one may pass very speedily in a brief time in the streets of a big city and who have eyes, noses, mouths, ears, all fashioned on the same type, we instantly pick out our friends. A good chloroformist rapidly seizes upon the leading features of his patient as regards his capacity for standing the drug and administers the volumetric dosage by rule of thumb, as will always be the case, if safety is to be the main consideration. At the same time, it is impossible to over-estimate the care which should be devoted to a chloroform case during the early periods of the administration. It will be noted that it is nearly always during the earlier periods that the fatalities occur. In the case of a prolonged operation after a while the patient lies quiet, as a rule, and does not need the anæsthetic except at intervals and then a very small dose serves to render him quiet again. There is therefore less likelihood of an unexpected failure of the heart. The chloroformist gets due notice and has time to warn the operator that it is time to wind up, inasmuch as the patient, between them, is quietly but plainly getting weaker. The danger is most between six and 10 minutes from the time the anæsthetic is commenced and during that time the anæsthetist's eye should never be off the patient's face for one instant. The slightest shade of pallor should be noted and the patient should be at once revived; upon the slightest difficulty of breathing his tongue should be instantly pulled out. Were these things done in time the cases of sudden collapse would become wonderfully fewer.

With regard to ether, the great point here is to keep the larynx free from frothy sticky mucus. Some people under ether secrete a vast amount of this from the mouth, fauces, and larynx. This they keep sucking down the trachea into the lungs, which get choked up with it, just as they used to do with blood in former days during operations on the tongue before one began to do a preliminary laryngotomy. Then the patient becomes a Blue Man. But if his jaws be well forced open with a gag and the mucus be swabbed out he recovers. It is to be noticed that among the deaths from ether a few have occurred from pieces of vomited material having been sucked down tightly into the larynx. Surely this is a preventable matter. Moreover, when it has occurred, why have the patients not been saved by a prompt laryngotomy? There are two difficulties about ether. One is that it is neither so pleasant to take nor so easy to give as chloroform, but in consideration of its superior safety these ought not to be so much considered as they are. It ought certainly to be more frequently used. The other is that in certain operations, more especially such as have to do with the anus or urethra, it seems impossible to get the muscular action subdued in certain people by ether. There is nothing for it in such cases but chloroform and that in fullest amount. I am always very fearful about the anæsthetic in operations for hæmorrhoids. But the great point about ether is that it is more difficult to kill a man with it than with chloroform. In both the chloroform fatalities which I have seen the patient was stone dead by the time my attention was drawn to them: face pallid, jaw dropped, and eyes staring wide open with big dilated pupils. You never see anything like that with ether.

#### WHICH MAKES PEOPLE MOST SICK, ETHER OR CHLOROFORM?

I am sure more people are sick under ether, but I am also

sure that when a bad sickness, lasting for a long time, occurs, it results from chloroform. Ice and small mustard poultices over the epigastrium seem to do as much good as anything else.

#### METHODS OF REVIVAL.

To begin with, I do not believe galvanism to be of the slightest use. Furthermore, galvanic batteries are hardly ever in order when required, and even if they are in order it takes too long to get them in action. By the time one of these things gets to work the patient is either dead or in safety again. If with chloroform as the anæsthetic the patient be in danger from overdosing and from having had too little air so that he has been both choked and poisoned we want to do two things—viz., to get air into his lungs and to get blood into his brain. Let someone jump on to the table and hold the patient up by the legs with his head dangling over the end, let his tongue be pulled out, and let Sylvester's method of artificial respiration be resorted to. Slapping with wet towels and many other minor means there are with which everybody is familiar. For some time there have been in use small capsules of amyl nitrite ready to be broken and inhaled. Since their introduction I have never been in such straits with an anæsthetic case as to be driven to use them but I should think that that drug would be of use. I am certain that I have seen good come from subcutaneous injections of ether or strychnine. With ether as an anæsthetic we have noticed that the danger is almost entirely from choking—from the bronchi and upper air-passages getting choked up with froth and sticky mucus. Mopping out the throat and larynx is the great thing here until the patient can be got to retch or to strain and then he comes speedily round. Moreover, his head should not be hung down, but rather the reverse. Failing success with these methods I would open his larynx, get in a tube, and blow air into his lungs while using Sylvester's method also.

But there is a small and very simple dodge which is a very effective means of rousing up a patient from a weak fainting condition if it be used sufficiently early. It is so simple, however, and so devoid of all scientific parade that I do not suppose any high-class anæsthetist could be got to use it. A great many pupils of mine have been taught to use it during many years past and it rejoices among them in the name of the "dry shave." It is known that certain cutaneous shocks induce the respiratory muscles to act—a jump into cold water, smacking with a wet towel. Now when a patient's lips and general countenance begin to get somewhat pale and his breathing very weak, while he makes no sign of movement and lies painfully quiet, if you take a rough towel and rub his lips and nose vigorously up and down with it you will see the colour come into his lips again, his chest will begin to heave, and he will usually make some movements with his head to get out of the way of the rough towel. In short, he rouses up from his fainting state. I know this much from long experience, that if a man does not show any sign of reviving circulation and respiration after a vigorous rubbing of his lips and nose up and down (not sideways) with a rough towel he is in an uncommonly bad way. I have seen a clever anæsthetist keep a most feeble woman safe through a prolonged operation by, so to speak, constantly bringing her up to the surface by this means, and so never allowing her to get too "fainty."

#### PRACTICAL POINTS IN ADMINISTRATION.

As to apparatus the best apparatus is always the simplest. I believe in the simple Skinner's mask, because it allows of most of the face being seen and because, however much chloroform may be poured on it, even until it runs down the patient's chin, there must of necessity always be plenty of air going in with the chloroform vapour. For giving ether men have their own favourite instruments. Ormsby's inhaler and Burton's inhaler seem popular. With my partiality for free admission of air I like the original American one with bandage webbing stretched up and down on a wire frame which is inside a rubber cover. As for those great apparatuses which people wear on their backs (like Parisian lemonade-sellers) or the apparatuses with stopcocks which profess to give regulate quantities of anæsthetics, my notion is that as anæsthetics have to be given in country cottages and in the houses of the poor dwellers in cities as well as in those of the rich, such apparatuses need not be used. The student should be taught to use the simple tools with which he is likely to go into practice. We have tried beginning with nitrous oxide gas and going on direct to ether at

the Liverpool Infirmary, but it does not seem to have found much favour.

Concerning stimulants before anæsthetisation I know that some people object to them because they say that they cause sickness, but this is because they are not given properly. A small quantity of brandy is given in a lot of water about half an hour before the operation. This the patient promptly vomits. The brandy should be neat or with just such a little amount of water added as will enable it to be got down. From one and a half ounces to two ounces for a woman and three ounces for a man is not too much. Let it be gulped down like physic just before the anæsthetic begins, then the patients are not sick. Many a timid, weakly woman after a good big dose of almost raw brandy needs very little anæsthetic indeed. In the pre-chloroform days they made patients half stupid with brandy and laudanum, and it was wonderful how it enabled them to endure pain. I helped once to put in an old medical man's shoulder. He would have no anæsthetic, but went out and got his brandy and laudanum and in about 20 minutes sat down and had the shoulder put in without moving a muscle.

I often give students a lesson. You will see an inexperienced hand jam the inhaler down over the patient's face and choke him. Then the patient fights for life, sits up, and refuses to have any more. The mask should be loaded with anæsthetic as full as it will hold, but it should be held a long way above his face and only brought down to it by slow degrees. Meantime there should be absolute silence everywhere. In private practice nurses seem to delight in fussing and knocking about basins and pots with as much noise as possible, while the surgeon and others are all talking about astonishing cases they have just had. This din excites and agitates the patient, who hears fragmentary sounds and does not know what to make of them. Having got all quiet, I tell the patient to count after me up to 100. A German surgeon showed me how to do this properly. He counted very slowly; then he began to sing the numbers in a drawing tone and finally he performed a sort of chant. I always do this. It seems to lull the patient to sleep, who will often follow the very cadences of the anæsthetist. A large number of persons will cease counting somewhere about 50, if they have had some brandy and all around is silent. I am sure it is far better not to say anything to a patient: it only rouses him up to think.

As to anæsthetics at various ages, I have noticed that infants and very young children get horribly pale under chloroform and have to be carefully watched, but they take it easily, although they often require a great deal. It will be often noticed that boys, say of about six or eight years of age, rapidly fall into a kind of false sleep and look as if they were well over, but if you touch them they shout lustily and kick, so that you have to give them a large amount of anæsthetic, after which they are apt to sink into a very deep sleep, from which they are slow to be awakened.

No bronchitic or asthmatic subject should be given ether and I believe that chloroform is by far the best anæsthetic for very old people. With a little previous brandifying they take it quite sweetly and recover quickly. I have had it given to two males, one 84 and the other 82 years of age, during the past week and nothing could have been pleasanter than the chloroform. Of course, on such very old people only such operations as are speedy of execution and can be done without great shock or loss of blood are admissible and, therefore, no great amount of chloroform is required, but to hesitate about giving it to a healthy old person is quite a mistake.

We always examine a patient's heart before anæsthetisation. It is an odd proceeding after all, for the form of heart disease—dilatation or fatty degeneration—can never be discovered by the usual perfunctory examination we make, and yet it is the dangerous one. Valvular disease, on the other hand, which one can hear, need be very little taken into account. It is one of the conditions under which the pulse, in the early stages of chloroform, seems always to get fuller and steadier. I have often pointed this out to students as an encouragement to them not to fear valvular disease. There is another condition which we are often not aware of, because we do not look out for it—viz., the presence of albumin or sugar in the urine. I suspect that I have perhaps been as guilty as anyone in this matter of not examining the patient's urine before operation in private cases. In hospital this is done for us—or ought to be done—as a matter of routine, and so we get warning. That a man with

albuminous urine and diseased kidneys is a dangerous subject, especially for chloroform, cannot be doubted, and in his case effort should be made to do with the least possible amount of anæsthetic and, if possible, to manage by means of local anæsthesia.

As regards the safest position in which a patient can be placed who has to take an anæsthetic I think that there can be no doubt that the recumbent position on the left side is the safest. The upright position in a chair is certainly the worst and, among other things, has contributed to the many fatalities which have occurred during dental operations. On the other hand, I would be glad to know if any member of the society knows of a fatal case occurring during childbirth. This seems to be a very rare thing, and yet chloroform is constantly being given in such cases. No doubt the patients are mostly at the best and most vigorous period of life, and from their condition may be expected to be in good general health. Also no very deep anæsthesia is required. But I also think that there are two other factors in this immunity, firstly, the fact that the patient lies well round on the left side, and, secondly, the fact that this position is one in which the tongue naturally falls forward and does not impede the breathing.

#### CORONERS' INQUESTS.

If a patient dies during or immediately after an operation there is no coroner's inquest, although there might be one if the coroner chose. But the whole surgical profession would become impossible if their proceedings were to be at the mercy of a coroner and his learned jury, and so the coroner says nothing, but tacitly admits that the operation was done skillfully and in good faith and that death was not the surgeon's fault but the patient's misfortune. I do not see why a death from an anæsthetic should be treated on different grounds. Were the public needing to be protected from reckless treatment it would be a different matter, but to the surgeon and the anæsthetist, in whose practice a death occurs, nothing can be more heartrending and distressing. We are not anxious to cover up any weak points. We are anxious to reveal them to each other and to encourage each other by every means in our power to improve them away. Therefore, there is no need of coroners' inquiries to stimulate us in that direction. But on the other side it becomes a serious question whether it is for the good of the public that the details of deaths from anæsthetics should be inserted in the public newspapers at all. I notice, and every surgeon notices, that when an operation is proposed it is not the operation that is dreaded but the anæsthetic. After a death in this city I have noticed this dread among private patients become distressing. Now, a condition of mental depression and dread is the worst state in which a patient can be who has to be anæsthetised. As the findings of the coroner's court have never contributed in the smallest degree to helping us how to avert danger and as their publication is injurious to the public health I think that the British Medical Association might well bring power to bear upon coroners, so that if a death from an anæsthetic be reported to them they should treat it in the same way as a death from operation and dispense with a public inquiry, unless they have cause to believe that there has been neglect or that the anæsthetic has been given by an unqualified practitioner. I believe that coroners' inquiries have never in this matter saved a human life and have contributed to the deaths of many.

#### WHAT IS THE REMEDY?

I believe, then, that physiological research has not as yet contributed, and in the future is not likely to contribute, to a practical knowledge of the safest way to administer chloroform and ether. I am also of opinion that complicated instruments with valves and stopcocks are not required for their safe administration and that for the most part they cannot and will not be employed in general practice where something very simple is required. Finally, I agree with the report of the British Medical Association inquiry, which stated that, after all their elaborate investigations extending over years, they believed that the safe administration of anæsthetics depended upon the judgment and experience of the administrator. If this be so, how are the administrators of the future being taught? They are not being systematically taught at all. I know that there are schools where the students receive a certain amount of instruction in the giving of anæsthetics, our own being among the number. But it is not enough—sufficient importance is not attached to it. Consider what value is

attached to the teaching of the methods of performing tremendous operations on the abdomen and brain, most of which really save very few lives, and which not one man in 500 who learns about them will ever perform. What an amount of useless biology, anatomy, physiology, and materia medica is stuffed into the student, and simply consumes valuable slices of time out of his five years' curriculum. And yet here is the important subject of anæsthetics, which every student will in due time have to administer, practically passed over as a thing of little consequence, so that many a man gets a diploma who has never once given ether or chloroform. It is time that the schools began to take hold of this matter and to show a practical interest in it, so that the bodies which grant degrees and diplomas may eventually compel the teaching of anæsthetic administration as a necessary part of the student's education.

How is this to be carried out? As regards all hospitals I cannot say, but with regard to those connected with medical schools, I should think that there were very few which at the present day have not an anæsthetist attached to them, and he should be the man to teach the students, every one of whom should be certified by him as having given an anæsthetic to a certain number of persons under his supervision. And, the labourer being worthy of his hire, he should be entitled to a reasonable fee for this. I do not believe in the cry against increasing the expense of medical education. As regards mere fees paid to teachers these are of a most moderate and well-earned character. They amount to little more than half the sums demanded for admission into most of the important businesses and professions; so that my view is that the anæsthetist should do practical teaching in his own important branch and should be properly paid for so doing. I know well that this view has been very ably advanced in the medical press by certain men of eminence who have this subject at heart, and one of the objects of this little paper is, if possible, to give what help it may to their efforts.

## ULCERATION OF THE ŒSOPHAGUS AND STOMACH DUE TO SWALLOWING STRONG HYDROCHLORIC ACID:

LESSONS OF TREATMENT DEDUCED FROM THREE CASES.<sup>1</sup>

By C. B. KEETLEY, F.R.C.S. ENG.,  
SURGEON TO THE WEST LONDON HOSPITAL.

THE main conclusion I draw from a study of these three cases is that in cases of poisoning by the more powerful corrosive acids surgical intervention should be almost immediate and that it is a mistake to postpone resort to surgery until there is no other alternative except that of letting the patient die from inanition. I will give the histories briefly and then discuss the question of treatment.

**CASE 1. Enormous dilatation of the stomach developed after accidental poisoning by strong hydrochloric acid; Loreta's operation; complete relief, apparently lasting; rapid recovery of flesh and strength.**—In the middle of October, 1897, I was asked by my colleague, Dr. J. B. Ball, to see a female patient of his, aged 32 years, who had eight months previously swallowed pure hydrochloric acid by mistake. It was the most striking case of dilatation of the stomach that I have ever seen and it is much to be regretted that no photograph was taken. When the patient stood up, whether she was viewed from the front or from the side, the whole anterior abdominal wall, except in the left iliac region and the extreme right of the right lumbar region, could be seen pushed forward by the stomach. She was very emaciated and the shape and movements of the organ could be seen with ease. There was a difficulty in swallowing and immediate vomiting, which, together with the history of corrosive acid poisoning, suggested either stricture or spasm of the œsophagus as well as of the pylorus. In fact, at this time it seemed almost equally difficult to get food into and out of the stomach.

On Oct. 18th an operation was performed. An incision was

made in the middle line above the umbilicus. The stomach presented. The pylorus could be felt some inches away in the right iliac or lower part of the right lumbar region. No adhesions or signs of thickening of the stomach wall were found. The pyloric portion of the stomach was now "hauled" outside. The word "haul" gives a better idea of the length and size of the organ than would the usual word "pull." Protective gauze packing was employed. A one-and-a-half inch incision was made into the stomach. The pylorus was thickened and was so contracted that it would only just admit the closed blades of a pair of polypus forceps. Gradual dilatation was made, first with the forceps, next with the little finger, and lastly with a three-bladed rectal dilator. With the last the pyloric opening was stretched to a circumference of four and a half inches, and a slight sensation of tearing was felt. Closure of the opening and removal of the dilator were next effected and the stomach was washed out with hot water through the wound. The opening in the stomach and the wound in the abdominal wall were then sutured.

Improvement began at once and progressed rapidly. Indeed, as soon as the patient had fully recovered consciousness after the anæsthetic she felt well and complained of nothing afterwards but an inordinate appetite. Vomiting ceased and the patient rapidly put on flesh. A year afterwards she was in good health and strength. The stomach never quite returned to its normal size. Last year I heard that she had not been so well recently, but I did not learn what was the matter. She has left her former address and I cannot find her, so I cannot report on her present state. The patient was shown at a meeting of the West London Medico-Chirurgical Society in December, 1897. I cannot remember who was the medical friend who saw her last year; but if he sees this I hope he will communicate with me.

**CASE 2. Suicidal poisoning by strong hydrochloric acid; rapid development of bronchitis and obstruction to breathing; extreme weakness; abdominal incision, but the stomach not opened on account of sudden collapse; great temporary improvement for 10 days; death three days later; contraction of the pylorus and pneumonia.**—The patient, a man, aged 25 years, was readmitted into hospital on Oct. 19th, 1897, the day after the operation on the patient in Case 1. He had been first admitted under the care of Dr. Hood. 32 days before his first admission he had swallowed strong hydrochloric acid with suicidal intent. After passing 18 days in the hospital he was discharged. He had then no pains, there were no physical signs of illness, and he "could swallow thin foods and milk." Very shortly after leaving he began to lose flesh, found difficulty in swallowing even liquids, and at last "what food he did swallow was vomited." When he was readmitted there was a "constant feeling of sickness" and the patient was emaciated. There was no ulceration or cicatrization of the mouth or the fauces. He could not swallow saliva. Attempts to pass œsophageal bougies caused much distress and induced vomiting. There were signs of pyloric obstruction. The greater curvature of the stomach descended an inch below the umbilicus. Palpation caused slight pain and excited spasmodic contraction. No thickening could be felt. The vomit for the most part was liquid and very dark brown. Constipation was present. On Oct. 21st rectal feeding was commenced. On the 28th when I saw the patient, as he had been getting more and more emaciated, I recommended operation. I noticed that he was then suffering from some bronchial or pneumonic affection with expectoration of copious blackish phlegm.

On Oct. 29th operation was proceeded with. I made an incision to the right of the middle line. The pylorus was exposed, but before further steps could be taken the patient became collapsed and blue. It was considered necessary to postpone opening the stomach. Iodoform gauze (wrung out in 1 in 2000 sublimate lotion) was placed in the wound so as to prepare for a future second stage of operation, without anæsthetic, in a day or two. A few ounces of neutral saline were injected subcutaneously into the axilla and 14 ounces of warm milk into the rectum. A urethral bougie was passed down the œsophagus. My intention, as may have been inferred, was to enlarge the pylorus without a general anæsthetic about 48 hours after the unfinished operation, but a curious change in the patient prevented me. "He was much better in the night and for the first time for eight days was able to take fluid by the mouth." For the next 10 days he took milk freely and improved in strength and spirits every day. But unfortunately on the eleventh day a good deal of pain was complained of in the right side. On the

<sup>1</sup> A paper read before the Royal Medical and Chirurgical Society on Nov. 12th, 1901.

thirteenth day the note is: "Better night. Kept expectorating dark-coloured phlegm. Very collapsed in morning. Very little pulse. Gradually sank and died." The temperature had ranged from 97° to 98.4°F., rising only one degree the day before death.

The only observations noted post mortem were pneumonia of the base of the lung, congestion, and possibly a stricture of the upper part of the œsophagus, thickening and a very tight stricture of the pylorus, and enormous distension of the stomach.

It is difficult to be sure of what occurred in this case after the incomplete operation. Possibly the passage of the urethral bougie down the œsophagus restored the power of swallowing, but as the pyloric stricture remained unrelieved less fluid passed out of than into the stomach, and so the gastric dilatation increased and the general condition became more dangerous. I was lulled into a false sense of security by the improvement in the patient's spirits and appearance. (The notes of the case were taken by Mr. J. M. Flavelle and Mr. A. Granville.)

**CASE 3. Suicidal poisoning by strong hydrochloric acid; stricture and progressive ulceration of the œsophagus and of the pyloric part of the stomach as well as of the pylorus; great emaciation and depression; gastro-enterostomy with Murphy's button; immediate relief and continued improvement for nearly six weeks, then death from bronchitis and pneumonia; Murphy's button found in the stomach, and the ulceration of the œsophagus unhealed.**—The patient, a female, aged 46 years, was admitted under the care of Dr. Hood on Sept. 13th, 1900. When under the influence of drink she had attempted suicide with strong hydrochloric acid. She had "spat out most of it." The mouth and the fauces were burnt by the acid. There were pain all down the throat and in the stomach and great thirst. An emetic and then bicarbonate of potash and calcined magnesia were administered. The pulse was 104 and of good volume and tension. For 10 days she had pain and the vomit occasionally contained blood. Compound mixture of bismuth with glycerine of carbolic acid (10 minims), was given internally, and chlorate of potash gargle. The mixture seemed to remove both the pain and the vomiting. Nutrient enemata were employed. On the eighteenth day (Sept. 30th) the mouth and lips had healed. On Oct. 1st milk was given by the mouth. On the 9th the nutrient enemata were stopped. The patient took more by the mouth; there was great hunger. Swallowing, unfortunately, became more and more difficult. Before the 27th (the forty-third day) scarcely even the smallest quantity of liquid could be swallowed. Emaciation and weakness were extreme. The nutrient enemata had been renewed on the 23rd.

On Oct. 27th operative measures were carried out. A median incision was made. The pylorus presented at once in the middle line, but could not be turned out owing to extensive and tough adhesions. The incision was prolonged up to the xiphoid. The left rectus and superjacent skin were cut through transversely. Extensive, strong adhesions of the stomach to the omentum, the abdominal wall, and the transverse colon were partly clamped and were all divided or separated. The stomach could then be moved. The pyloric portion was contracted to the shape of a small sausage; the cardiac end was smaller than natural and almost entirely under the left costal margin. An anterior gastro-jejunostomy with a Murphy's button was performed. The bowel and the stomach apertures were tightened round the halves of the buttons by two or three interrupted fine silk sero-muscular sutures. The contracted pyloric part of the stomach was three or four inches long. Its lumen would not admit the tip of the little finger—in fact, it seemed almost impervious. The parietal wound was closed in layers. There was no drain. The patient was very collapsed after the operation. The pulse in the evening was 176. The nutrient enemata were not retained. Milk and hot water (in equal parts) were therefore given by the mouth at once. Five ounces were given—one ounce every quarter of an hour. This was repeated in the evening; there was no vomiting. The patient's condition improved. On the 28th (the day after the operation) the pulse was 112. Liquid food was retained both by the stomach and by the rectum. On the 30th the patient was better still; the pulse was 90. She vomited altogether three times in the course of the first 10 days. On the tenth night she retched a great deal. There was no abdominal tenderness. Did the Murphy's button fall back into the stomach at this time and cause the retching? Feeding by the mouth was stopped for 24 hours and then was

resumed cautiously with milk and "Valentine." There was no more vomiting. The wound healed. The patient increased in strength and cheerfulness. The temperature was normal till Nov. 20th (the twenty-fifth day after the operation), when it began to rise gradually, and on the twenty-nine day it reached 101.6° F.; it only once reached 102° (four-hourly chart). With the rising temperature was noticed a slight cough with mucous expectoration. There was no pain or tenderness in the epigastrium. Some pain over the base of the right lung continued and there were occasional paroxysms of pain in the "left iliac region." Was this caused by the button, which x rays had a week before shown to have probably fallen back into the stomach? There were râles on coughing, but there was no dulness at the right base. On the 24th the mucus was slightly rusty; the chest was tender when percussed. On the 29th the sputum was offensive, muco-purulent, and more copious. On Dec. 2nd (the thirty-ninth day after the operation) the patient could not swallow solid food. On the 4th the diarrhoea which had been present for the last three days still persisted. On the 5th the patient died from collapse.

The post-mortem examination showed a stricture two inches long, scarcely admitting a lead pencil, at the upper extremity of the œsophagus. At the cardiac end was a second stricture, less tight, but with ulceration still active. The Murphy's button was free in the cavity of the stomach. The ulceration had quite healed. The cicatrised and contracted pyloric end had further contracted longitudinally to about half its length at the date of the gastro-enterostomy (six weeks before). A narrow curved or sinuous passage led through it into the duodenum. The gastro-enterostomy was perfect with a free passage into the distal loop of the jejunum, and a narrower one into the proximal. The extensive adhesions observed at the operation had nearly all disappeared and nothing remained to interfere with free movements of the stomach. The large bronchi were ulcerated and contained foul purulent secretion. There was grey hepatisation of the left lung throughout. Some pneumonia was present at the base of the right lung. (The notes of the case were taken by Mr. Bennett and Mr. O. Inchley.)

#### REMARKS ON THE THREE CASES.

That which was least injured and non-suicidal recovered but passed through a period of illness which if left unrelieved must have had serious consequences. Both suicidal cases were much worse than Case 1 at the time of operation. Besides, in both cases the bronchial trouble began before operation. In Case 2 the following note was recorded the day after the acid was swallowed: "Large mucous râles all over chest, back and front." Two days later there is the note, "Respiration, especially at night, is very noisy and sounds as if it was obstructed." The note on the day of his discharge is, "Lungs practically clear"; it continues: "No sickness, no dysphagia, no," &c. Nevertheless, this patient had to be re-admitted in 14 days worse than ever. There is no note about his respiratory organs on re-admission, probably because attention was concentrated on his serious œsophageal and gastric troubles. The patients in Cases 2 and 3 did not suffer to anything like the same extent as did the patient in Case 1 from gastric dilatation; indeed, the third patient had a stomach much smaller than normal. But they were more seriously injured in the œsophagus. A careful post-mortem examination of that organ from Case 3 persuades me that its ulceration was still progressive rather than healing, although her death occurred 40 days after operation and 83 days after swallowing the corrosive acid. In both the fatal cases the patient died from septic broncho-pneumonia; I see no reason for attributing this to the operations. In Case 2 nothing was done but the making of a small incision in the abdominal wall. In Case 3 healing was rapid. A post-mortem examination showed the gastro-entero-tomy to be perfect, and not only was there no peritonitis but most of the adhesions seen at the operation, 40 days before, had been absorbed.

I believe the ulceration of the œsophagus or of the pharynx leads to the infection of the air-passages. This may occur directly through the lymphatics, or indirectly through the passage of muco-purulent discharge downwards through a glottis, perhaps itself œdematous or thickened, or otherwise impaired by the action of the acid, not necessarily on the glottis itself, but on parts closely adjacent to it.

At the same time the physical strength and the mental and moral state of such patients are lowered extremely by

both the causes and the results of the accident. The utmost conceivable depth of "lowness" is reached by a patient who, as a consequence of swallowing a corrosive acid suicidally, is for a long period neither able to pass food through the œsophagus nor chyme through the pylorus.

#### THE QUESTION OF TREATMENT.

These cases seem to me to teach certain lessons. Conclusions should be drawn cautiously from a short series of only three cases; but the rules which I am going to lay down are indicated by these cases, not only collectively, but individually. It is not, therefore, a mere matter of statistics.

1. The patient should receive no food (either liquid or solid) by the mouth for several weeks—i.e., he should not be fed by the mouth as soon as he can swallow with little or no pain; but oral feeding should be postponed until there is good reason to believe that the injuries have completely healed.

2. When the injuries are serious (and they generally are so) an operation should be performed within a few days of the date of the poisoning—the sooner the better.

It must always be a matter of conjecture to determine whether the injuries have healed or not. The only parts of the injured tract visible are the mouth and pharynx, but the pylorus or even the middle of the stomach may be much worse, as, e.g., in Case 3, not to mention the œsophagus. In Case 3 the mouth and lips are noted as having healed on the eighteenth day, but active ulceration of the gullet was found after death on the eighty-fourth day (three months after the accident).

I am afraid that it is rarely safe to assume that a case of this kind is not serious unless it is positively known that only a minute quantity of acid has been swallowed. Case 3 was scarcely a truly suicidal one. The patient got drunk on the "rent money," was scolded by her husband, drank the acid, but spat most of it out again; she was brought to the hospital and made to swallow calcined lime and an emetic, and yet her injuries were terrible. Even when swallowed by pure accident an ounce or more is easily taken into the gullet before the mistake is discovered and most of it passes into the stomach, running along the lesser curvature till it is stopped by the pylorus or by food already in the stomach.

All the three cases were treated according to what seems to be the usual practice—that is, the patients were allowed to swallow food when they could do it without much difficulty or pain. The patient in Case 2 was fed by the mouth from the very first day. The subject of Case 3 began with milk on the sixth day and took puddings on the fifteenth day. She never got as far as fish or meat. Granting that the patient should not be fed at all by the mouth for several weeks, and that we should only be satisfied with rectal feeding in trivial cases, the severe cases remain to raise the question of operative treatment.

The region most seriously injured is usually the pyloric part of the stomach. The problem for the surgeon's solution is not simple. The choice of operations apparently lies between gastrostomy, duodenostomy, jejunostomy, gastro-enterostomy, and a combination of gastrostomy with gastro-enterostomy. Gastrostomy does not give rest to the most injured part—namely, the pylorus. Gastro-enterostomy does not rest the œsophagus. Jejunostomy, when properly done, is practically a double operation. Duodenostomy would seem to be the simplest and most straightforward procedure, although it is liable to permit bile to leak out and irritate the skin. All these methods are open to the objection that, in the by no means unlikely event of an œsophageal or a pyloric contraction taking place after all, a secondary operation may have to be done, in addition to one for undoing the first operation. Therefore the indications would most likely be best met by combining a gastrostomy with a gastro-enterostomy, and carrying the gastrostomy tube through the gastro-enterostomy wound for some distance down the efferent loop of the jejunum. This is practically the method recommended by Witzel for an ordinary gastro-enterostomy, except that in the cases I am writing about something more is desirable—viz., an arrangement for washing out and draining the stomach through the gastrostomy wound. This could be obtained either by using a double tube, especially constructed so that the shorter canal opened into the stomach, or, more readily, by passing the long, narrow gastro-jejunal tube through a short, wide gastric tube. In spite of treatment pyloric contraction should take place this plan provides a gastro-enterostomy ready made. The gastrostomy wound could

be closed or kept open, according to the final condition of the œsophagus. In the hands of careful and experienced operators the method would probably be found very safe, as the patient would be operated on while in fair physical condition, and the gastro-jejunal tube should resist the dangers of the "vicious circle." These dangers could be further minimised by using Murphy's button, and, should that contrivance fall into the stomach, the gastrostomy wound itself could be enlarged to permit its extraction. Further, the treatment above recommended would reduce to a minimum the danger of infection of the air-passages, through the swallowing or the regurgitation of septic discharge, or of food, either of which might easily find its way through a glottis œdematous and stiffened either by direct injury or by injury to neighbouring parts. In a long series of cases of poisoning by corrosives now and then the glottis is likely to be so severely injured as to demand prompt tracheotomy. This would make it more than ever desirable not to feed by the mouth.

At the post-mortem examination of Case 3 I was struck by the resemblance of the ulcerated bronchi to those of a case in which bronchial infection and gangrene had been caused by a tracheo-œsophageal fistula.

#### AFTER-TREATMENT.

Feeding by the gastro-jejunal tube would be commenced at once, in spite even of moderate ether or chloroform vomiting, should those anæsthetics be used, but gas alone, or with oxygen, would suffice for the operation described, or even local anæsthesia. Local treatment should be given to (1) the mouth and nose, (2) the pharynx and the œsophagus, and (3) the stomach.

*The mouth.*—This should be frequently washed out with warm solution of chlorate of potash or warm boric lotion, or with both. Dirty teeth should be cleaned, diseased teeth should be treated with pure carbolic acid or by extraction, and suppurating alveoli should be attended to. If the process is very painful owing to the burning, gas, cocaine, or eucaine should be used. The nasal passages should be attended to if unhealthy; if healthy they should be left untouched.

*The pharynx.*—The pharynx is said not to be reached by gargles. It should be sprayed frequently with hot boric lotion, and twice a day it should be dusted with a little, not much, iodoform powder through a puff. As soon as the patient can swallow without pain he should be allowed hot water or hot neutral saline *ad lib.*, and be encouraged to take it.

*The stomach.*—The hot water swallowed should be allowed to escape by the short gastrostomy tube, so that it would tend to wash out the stomach also. In addition, after each meal given by the gastro-jejunal tube, the stomach should be washed out with hot water by the gastric tube.

The application in some such way as that above sketched of the principles of surgery to this distressing class of cases would, I believe, greatly reduce their mortality and lessen the permanent injury done to those who more or less recover.

Grosvenor-street, W.

### NOTES OF A SEVERE AND LONG-STANDING CASE OF LUPUS TREATED BY THE APPLICATION OF THE X RAYS.

By GEORGE H. RODMAN, M.D. DURH., M.R.C.S. ENG.

THE patient whose treatment is the subject of the following notes is a woman, aged about 33 years, who has suffered from lupus of the face, which is reported to have started after an operation for the removal of a diseased portion of the left malar bone some 20 years ago. There is a history of tuberculosis in the family, one sister having died from phthisis at the age of 14 years, and a brother also was the victim of laryngeal phthisis. The lupus had been scraped about 15 years ago; since then it has been treated medicinally and by the local application of ointments and lotions. At the time of starting the treatment by the x rays, on April 19th, 1901, when Fig. 1 and Fig. 2 were obtained, the disease was involving both sides of the face, the ulceration being continued under the chin. On the left side of the face the disease extended from the zygomatic

arch over the cheek and involved the lobe of the ear which was considerably eroded from lupoid ulceration. Anteriorly the disease extended to within half an inch of the angle of the mouth. The upper portion of this area was covered with dry brownish scabs, the lower half being smoother and less ulcerated. The edges of the disease were considerably

the same time it caused frightful disfigurement and presented the features of typical lupus.

The x-ray treatment was commenced on April 19th, 1901, and between that date and July 29th, 1901, when it was

FIG. 3.

FIG. 1.



Showing the extent of the disease on the left side of the face on April 19th, 1901.

FIG. 2.



Showing the extent of the disease on the right side of the face on April 19th, 1901.

raised and indurated. Below the jaw the disease consisted of a strip of about an inch in width extending from the ramus of one side to that of the other; the scabbing was chiefly about the edges. On the right side of the face the disease was slightly less extensive than on the left, but at



Showing the condition of the patient, left side, on Oct. 6th, 1901.

FIG. 4.



Showing the condition of the patient, right side, on Oct. 6th, 1901.

stopped, there were 50 exposures made, of which details are given in the accompanying table. 14 were employed in

dealing with the left side on the first occasion. 17 were used to the right side, and on the second occasion of dealing with the left side there were 19 exposures made. On Sept. 13th, 1901, the healing process was complete with the exception of a small patch on the lobule of the left ear which it is my intention to expose again on some future occasion to the influence of the vacuum tube.

During the early sittings it will be noticed that the length of the exposures was shorter and the distance of the tube from the disease greater than that employed later—a course that should be invariably followed till the tolerance of the patient has been ascertained. Six applications were employed weekly during the period of active treatment.

The x rays were produced, as will be seen from the table, with a potential of about eleven and a half volts, and the amperage employed was between two and three amperes in the primary current.

The tube used was a Cox's record tube excited by a 10-inch coil with platinum break. The portions of the face and neck not affected by the disease and the scalp were protected from the influence of the rays by a paper pulp mask, the outer surface of which was covered with a layer of thick lead foil. No falling off of the hair of the head or the eyebrows was noticed. Fig. 3 and Fig. 4 were obtained on Oct. 6th, 1901. These, as well as those before treatment was commenced, are from unretouched negatives kindly taken for me by my friend Mr. Albert Cheese. In Fig. 3 the dark discolouration of the left cheek over the seat of lupus has been exaggerated in the photograph.

Table giving Particulars of a Case of Lupus treated by the X Rays.

Date.	Voltage employed.	Length of exposure.	Distance of tube from disease.	Date.	Voltage employed.	Length of exposure.	Distance of tube from disease.
		Mins.	Ins.			Mins.	Ins.
April 19th ...	11-10	10	6	June 16th ...	11-94	15	3
„ 21st ...	11-10	10	6	„ 17th ...	11-52	15	3
„ 22nd ...	11-10	12	6	„ 18th ...	11-52	15	3
„ 23rd ...	11-10	14	5	„ 19th ...	11-52	15	3
„ 25th ...	11-0	15	4	„ 20th ...	11-52	10	3
„ 26th ...	10-74	15	4	„ 21st ...	11-40	12	3
„ 28th ...	10-44	15	4	July 8th ...	11-51	15	3
„ 29th ...	11-88	15	5	„ 9th ...	11-50	15	3
„ 30th ...	11-64	15	4	„ 10th ...	10-74	18	3
May 1st ...	11-64	15	4	„ 11th ...	10-74	18	3
„ 2nd ...	11-40	15	4	„ 12th ...	10-26	18	3
„ 3rd ...	11-40	15	4	„ 14th ...	10-26	15	2½
„ 5th ...	11-40	10	6	„ 15th ...	11-94	18	2½
„ 6th ...	11-40	5	6	„ 16th ...	11-52	18	2½
June 3rd ...	11-40	18	4	„ 17th ...	11-52	18	2½
„ 4th ...	11-40	16	4	„ 18th ...	11-40	18	3
„ 5th ...	11-40	16	4	„ 19th ...	11-40	18	2½
„ 6th ...	11-40	15	4	„ 21st ...	11-40	15	2½
„ 7th ...	11-34	16	4	„ 22nd ...	11-40	18	2½
„ 9th ...	11-28	15	3½	„ 23rd ...	11-40	20	2½
„ 10th ...	11-04	18	3	„ 24th ...	11-40	20	2½
„ 11th ...	10-80	18	3	„ 25th ...	11-40	20	2½
„ 12th ...	10-80	15	3	„ 26th ...	11-40	20	2½
„ 13th ...	10-50	10	4	„ 28th ...	11-28	15	2½
„ 14th ...	10-46	15	3	„ 29th ...	11-28	12	3½

#### REMARKS.

April 19th.—The application of the x rays to the left side of the face was commenced.

April 28th.—The lobule of the ear was showing signs of irritation and was becoming raw from separation of scabs, consequently it was protected with lead-foil.

April 29th.—The whole surface of the left side of the face was becoming redder.

May 1st.—Discharging pus in several points.

May 5th.—The patient complained of the surface being very tender. The lupus nodules at the upper and front edge were suppurating. The whole area looked flatter and there was not nearly so much infiltration of the edges.

May 6th.—The surface was discharging pus freely and the crusts

were separating; it was very tender and sore. The application of the x rays was discontinued.

May 11th.—The crusts had come away, leaving a clean, suppurating, raw, smooth surface resembling a burn in process of healing.

May 21st.—There was a white edge of healing ulceration round the raw surface. This edge varied in width from one-eighth to one-quarter of an inch. In several spots there were islands of white healing centres.

May 26th.—The healing process proceeded rapidly, the white edge increasing in width. There were some remains of tubercular nodules at the extreme front.

June 2nd.—Continued to heal rapidly.

June 3rd.—Treatment was started on the right side of the face.

June 5th.—No reaction was noticed.

June 6th.—There was commencing hyperæmia of the ulcerated surface.

June 10th.—The healing process on the left side continued to progress satisfactorily.

June 16th.—The patient complained of the right cheek becoming sore. The surface began to look glazed. The healing of the left side of the face had continued uninterruptedly, and there was now only a small patch of ulceration in the centre of the size of a three-penny-piece.

June 20th.—Tenderness was more marked and suppurating was commencing.

June 21st.—The crusts had separated and the surface was freely suppurating. The application of the x rays was stopped.

June 25th.—The surface of the right cheek resembled that of a healing burn, the whole of the lupoid tissue having suppurated.

July 6th.—The surface had continued to suppurate freely and was now healing with a typical white edge extending over a smooth red raw surface.

July 8th.—Treatment was reapplied to the left side of the face; a mask of lead-foil was applied over the parts cured and the rays were only allowed to invade the front edge of the scar, a patch over the zygoma, and the lobule of the ear.

July 12th.—The lobule of the ear was becoming slightly tender.

July 15th.—The ear was still tender, but at present there was no appearance of swelling of the lupoid edge on the cheek.

July 18th.—The ear was discharging freely, and consequently it was masked with lead foil.

July 22nd.—The ear was discharging freely; the edge of the scar on the cheek was becoming raised and tender.

July 25th.—Crusts were forming and becoming raised and the discharging ear continued very tender.

July 28th.—The crusts were commencing to separate.

July 29th.—The edge had become raw and suppurating. Application of the x rays was discontinued.

Sept. 13th.—The patient was completely healed.

East Sheen, S.W.

## A CASE OF LUPUS VULGARIS TREATED BY EXPOSURE TO X RAYS.

By T. COKE SQUANCE, M.D. DURH.,

PHYSICIAN AND PATHOLOGIST TO THE SUNDERLAND INFIRMARY; ORAL EXAMINER IN PUBLIC HEALTH IN THE UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.

ON July 15th, 1900, I was consulted by a woman with regard to her daughter, aged 17 years, who had suffered from lupus vulgaris for upwards of two years, during which period she had been on two occasions treated by erosion but without any permanent benefit, the disease having returned with increased virulency. Fig. 1 gives a very good idea of the appearance of the patient. Her nose was very much thickened and the alæ were ulcerating. The upper lip was extremely swollen, measuring a little over an inch from the skin to the mucous membrane. The disease extended over both cheeks, affecting the lower lids of both eyes. There was a patch on the forehead (concealed by the hair) and a large one extending over the angle of the jaw on the right side. I advised, as other methods had failed, that exposure to the x rays should be tried. This was agreed to, and at first I gave the patient 10 minutes' exposure three times a week, protecting the eyes as far as possible but allowing the lower lids to be exposed. After the first exposure there was decided flushing, accompanied by some pain and tingling and a sensation of heat which continued more or less markedly after each sitting, the skin assuming a reddish-brown appearance with yellowish crusts. As soon as the installation of the x ray apparatus at the Sunderland Infirmary was effected she became an inmate of the infirmary, and the subsequent exposures to the rays were made by Mr. S. S. Lacombe (who had charge of the apparatus). For some time the exposures were made daily until the reaction became so marked that the treatment had to be intermitted, and the eyes also required attention, cornetitis having supervened. Improvement was steady but slow until the condition shown in Fig. 2 was achieved, when the patient was practically cured, but as a precautionary measure occasional

exposures are still made. On account of the patch on the forehead no proper protection could be given to the hair which became considerably thinned.

The distance of the tube was varied from seven to three inches and the length of exposure from five to 15 minutes. It is somewhat difficult to account for the action of the rays

FIG. 1.



Condition of patient on July 15th, 1900.

FIG. 2.



Condition of patient on July 20th, 1901.

in lupus; probably it is a dual one, on the one hand by excessive stimulation of the bacilli, causing "over population" and consequent dearth of food, and on the other producing an inflammatory reaction in the healthy tissues on the margin of, and below, the diseased portion, causing them to put on an increased resistance.

Sunderland.

## ROTATION OF THE FOREARM.<sup>1</sup>

BY RICHARD J. ANDERSON, M.D. R.U.I., M.R.C.S. ENG.,  
PROFESSOR OF NATURAL HISTORY, MINERALOGY, AND GEOLOGY,  
QUEEN'S COLLEGE, GALWAY.

PROFESSOR HEIBERG of Christiania has called attention to the fact that the movements of supination and pronation are commonly attributed to the motions of the radius alone. He has shown that in addition to the movement of the lower end of the radius round the ulnar styloid process (the pit at the root of the styloid process) the ulna moves too; both bones near the wrist move along curves. Heiberg made his views clear by models and made experiments to confirm the results. His conclusions were embodied in a paper read before the Copenhagen International Medical Congress. The presumption that the humero-ulnar articulation does not admit of any movement except flexion and extension led to the suggestion that the humerus rotated and not the ulna. The movement of the ulna, however, took place after the humerus had been clamped. Then it was shown that the forced twisting of the hand was not necessary to establish the facts. Dr. Cathcart of Edinburgh showed by means of a ring that the ulna moved under the bracelet as clearly as the radius. A demonstration was given at a meeting of the British Medical Association. A frame with an upper and a lower clamp with an intermediate graduated circle was used to test the amount of rotation at any part of a limb for a given displacement at the distal end. The latter, being determined by means of a graduated circular scale, was read off and the corresponding number on the intermediate graduated circle was noted.<sup>2</sup> The degree of rotation was ascertained in the anterior limb of several animals. Rotation becomes less and less conspicuous as we proceed to examine the forearm nearer and nearer the elbow-joint, and in man a slight displacement of the bones indicates what remains of movement at the limit. The following method may be used to show the rotation of the arm. An elastic band with a buckle is attached to a mirror three quarters of an inch wide. This band is fixed over the lower end of the forearm with the mirror over the styloid process of the radius first and afterwards over the styloid process of the ulna. Except in extreme supination and pronation the mirror may be made to follow the rotating wrist. A beam from a lantern with reflector allowed to fall on the mirror will show the nature of the rotation. The band can be gradually moved upwards, and at each stage the rotation tested; where the mirror rests on a bone the tilt will render more conspicuous the movement. This contributes chiefly to produce the deviation of the reflected beam when the mirror is placed over the olecranon. The roll here, though slight, is felt by the mirror.

The intimate connexion between movements, ligaments, and articulations has long been established, indeed, since the time of the appearance of the works of Henle, Cruveilhier, and C. Krause. Leaving out all those articulations in which surfaces are difficult and in which the movements are correspondingly complex, there still remains an assortment of articular surfaces which anatomists have tried to group and classify, and to which nature has assigned certain varieties of ligaments and has associated certain movements. Inter-articular cartilages and ligaments render joints confusing, and it is only by referring to the conditions in the lower animal forms that one can hope to get an explanation of the odd conditions in man. The peculiarity of the hip-joint was only understood after comparative anatomical investigation (W. Krause). The condition of the ulna is only understood after referring to the development of the articulation and its condition in other animals. The fixed radial head in the sheep is seen to supplement the coronoid portion of the ulna in rendering more secure the elbow-joint; the elongated hollow of the articular head of the radius in the badger is intermediate in form, but the head of the radius in man is not strictly circular.

The joints in the forearm are somewhat varied. Leaving out the wrist-joint, the lower radio-ulnar articulation is made up of surfaces of the second order (hyperboloid). The same holds for the upper radio-ulnar joint. The articular hollow in the upper end of the radius is apparently a hollow sphere,

<sup>1</sup> A paper read before the British Medical Association, Surgery Section, on August 1st, 1901.

<sup>2</sup> Anatomische Anzeiger, 1892.

but in all probability rarely so simple, and it may be limited to a portion of the head, whilst a portion becomes flat or slightly convex. The convex articular surface of the humerus, limited to the anterior and lower part, passes internally into the ulnar articular surface. This capitular surface registers the imperfect attempt of nature to make a ball-and-socket joint. The easiest form of glass lens to make is, we are told, a spherical one, but the conditions are different where the surfaces are living. The ulna has really two humeral joints which were at one time separate in man, the interval being occupied by fibrous synovial processes; at birth there is a simple joint. The surfaces are hyperboloid running into spherical externally and paraboloid or ellipsoidal internally; the surface is sometimes called helicoid or screw surface.<sup>3</sup> The olecranon articulates above behind and below, the coronoid process in front and below. The surface is not a hyperboloid of one sheet as a straight wire does not lie in the surface. The hollow inner part of the coronoid articulation is greater than the hollow inner part of the olecranon (a well-known fact). The shapes of the bones which give us a key to form, as the joints give us a key to motions, are in their constitution influenced apparently by the part they take in bearing strains and by the vascular supply. It is not easy to say whether the lines of the trabeculae in the cancellous tissue are chiefly the cause of the shapes of the articulations or are altogether the result of the intermittent pressure produced by the bones. The radiating fibres suggest a response to the lines of pressure.

The motions of the bones concerned in rotation of the forearm are that of the radius on the ulna, that of the ulna in relation to the radius, and that of each in relation to the humerus. The radius would describe a cone-like surface if the ulna were fixed and the head circular. The radius follows, however, the moving ulna as a satellite follows its planet. The ring of fibrous tissue above and the triangular fibro-cartilage below limit the movements. The apex of the cone alters its position owing to the head not being circular and the movement of flexion which the head experiences. The ulna in pronation is extended, abducted, and rotated. The radius is flexed and adducted as well as rotated; so far as the ulna is concerned, this act is aided by the movements of the ulna. The action is easier and a strain less necessary than if the ulna were fixed. The movements of the radius on the humerus are flexion or extension, a shifting inwards or outwards and rotation of the head. The ulna moves backwards or forwards on the trochlear surface, and rolls in or out; extension of the ulna is attended with motion of the lower end out. It may here be mentioned that the methods by which ellipsoidal, hyperboloidal, spherical, or paraboloidal curves are produced physically, suggest to one that similar conditions may prevail in the construction of similarly curved joints.

Rotation of the forearm is rarely a simple action. It is commonly associated with movements of flexion and extension of the elbow-joint. To this the character of the muscles in the forearm bears witness. There are apparently varying degrees of inter-association of these actions in animals. Leaving out the intrinsic muscles, one may easily gather from a study of the pronator teres how the association arises. This muscle draws the forearm towards the arm and at the same time turns the radius over the ulna. If two half-discs of cardboard be taken and so placed that the circumference of one will represent the course of the upper part of the humeral attachment of the teres as the humerus moves towards the forearm, whilst the other disc is so placed that its circumference will represent the course of the attached end of the teres in movements of the radius inwards, then, by attaching threads to each disc to represent the muscle band at each stage of movement a surface may be constructed. This surface is of a complex nature and illustrates the direction of the muscle band at any particular part of the excursion.<sup>4</sup> It may be urged that the articular surfaces show variations. Professor Lesshaft's classification is an attempt to deal with a subject which the addition of numerous facts has rendered difficult. Although complex for the student who wishes to have his attention riveted upon the shape, ligaments, lines of pressure, and connexions of joints, it will be regarded as a thankworthy attempt to deal with a great difficulty. It

is now proved that the articular surfaces, formerly regarded as very simple, are more complex, but are still within the scope of the mathematician who deals only with the simpler relations. The more difficult surfaces and forms are appropriately referred to the artist who may give us a key to the complex conditions which nature presents.

Queen's College, Galway.

## ON A NEW METHOD OF PRESERVING MUSEUM SPECIMENS.

BY HUGH GALT, M.B., F.F.P.S. GLASC., D.P.H. CAMB.,  
PATHOLOGIST TO THE GLASGOW SAMARITAN HOSPITAL FOR WOMEN;  
PROFESSOR OF FORENSIC MEDICINE AND PUBLIC HEALTH,  
ST. MUNGO'S COLLEGE, GLASGOW, ETC.

It will be admitted by all who have had any considerable experience in the matter that the methods at present in use for preserving gross pathological specimens in such a way as to enable the latter to be employed as illustrations are very far from perfect in many respects, and that finality has been reached in this direction few will venture to assert. Until quite recent years the almost universal method of preservation was by keeping the specimens in a large relative bulk of spirit of wine, after preliminary washing with water and soaking in several changes of spirit of wine. This method, while satisfactory enough with regard to the prevention of decomposition and the retention of the structural relationship of the parts, had three serious defects. Firstly, it was costly, particularly where a large number of specimens had to be dealt with; moreover, the alcohol evaporated unless the jars were almost hermetically sealed and had to be replenished or even entirely renewed at intervals. Secondly, the final result of the alcohol was to cause considerable shrinkage of the specimen and thus greatly to destroy its illustrative value. This result, of course, is particularly evident in the case of succulent tissues or organs such as the liver, spleen, &c. Thirdly, the colour of the specimen in the fresh state, except in the case of pigment insoluble in alcohol or carbonaceous matter, was soon completely, or almost completely, lost, the tissues taking on a uniform yellowish white colour, so that, for example, a cancerous nodule in the kidney could not be distinguished by its colour from the surrounding renal tissue. This is, perhaps, the most serious objection. There is no scientific objection on the ground of cost, and as to the shrinkage of the specimen accurate original measurement will to some extent minimise this disadvantage; but no minute description of the original colours (in the absence of colour-photography or the costly and often unfaithful painting in colours) can overcome the last defect.

On the properties of formaldehyde as a preservative of decomposable organic tissues partly depends a more recent method of preserving museum specimens, although the final preservative fluid chiefly employed in conjunction with formaldehyde is essentially diluted glycerine. For some time it was thought that in a solution of formaldehyde in water, containing about 40 per cent. of the gas and commercially known as formalin, we had a liquid which would be free from the disadvantages attaching to alcohol as a preservative. As it prevents decomposition even when very largely diluted with water the first objection to alcohol is surmounted, for the cost of a solution of formalin sufficiently strong to prevent the decomposition of animal tissues is comparatively trifling. With regard to the second objection, however, there is little if any gain, as even in a very dilute solution formalin not only causes shrinking of the tissues, but hardens them and renders them brittle. On the third objection there is again little real gain, for while formalin does not bleach the natural colours like alcohol, it gradually approximates the various shades until the specimen becomes ultimately of a slate colour. All the foregoing applies equally to formaldehyde vapour. In addition, formalin has inherent objections. Its vapour is irritating to the air-passages; it acts deleteriously on the hands; being volatile it slowly evaporates; while it is occasionally unstable even in diluted solution.

Perhaps the best-known modification in the employment of formalin in the preservation of specimens is Kaiserling's. Here the tissue is really only fixed in a solution of formaldehyde with acetate and nitrate of potassium; after treatment with 80 per cent. and 95 per cent. alcohol the

<sup>3</sup> Chomitzky, quoted by Lesshaft.

<sup>4</sup> Report of the meeting of the British Association at Southport.

specimen is finally preserved in a 20 per cent. aqueous dilution of glycerine with 10 per cent. acetate of potassium added. While I am informed that in some hands this method has given very fair results, personally I have to express my dissatisfaction with it. Acting strictly according to the instructions given the final results were very uneven, and in no single case could I get a specimen to retain for a length of time anything like its appearance in the fresh state, while the necessity of keeping the specimens thus treated carefully covered from the light must always remain a very real objection. It is evident, for instance, that specimens preserved by Kaiserling's method may require to be frequently uncovered and exposed to the light when being utilised for demonstration, so that in a longer or shorter time the natural colours entirely disappear. A museum of specimens preserved by Kaiserling's method would be on the same level as a picture gallery with the pictures facing the wall. Moreover, there are certain specimens (uterine fibroids and dermoid cysts for example) in which the colour of the specimen in the fresh state is so nearly and uniformly white that no advantage attaches to Kaiserling's or any other method requiring special treatment for the retention of colour. On the other hand, it is certainly advisable that as far as possible museum specimens should be prepared and preserved by a single method.

The foregoing facts led me some three years ago to institute a series of experiments with various substances with the view of finding whether a satisfactory method of preserving museum specimens could not be devised which would be free from the objections applicable on the one hand to alcohol and on the other to formaldehyde and its modifications. It will be at once apparent that I had a fairly large field to draw upon. A number of possible agents were neglected on account of initial cost, instability, poisonous properties, or for some other reason; but, as the following list will show, I had still ample ground in which to search for a substitute or substitutes, partial or complete, for alcohol and formaldehyde. I made in all between 70 and 80 experiments with the following agents, singly or in combination: alcohol, chloroform, formalin, glycerine, arsenic, carbolic acid, sodium chloride, potassium acetate, potassium nitrate, and chloral hydrate.

Without going into the details of the separate groups of experiments I may say that the first positive result was found in an aqueous solution containing 15 per cent. of glycerine and 0.1 per cent. of arsenic. This solution, after the usual preliminary treatment of the specimen by washing with water and fixing in 80 per cent. alcohol for from one to four days is cheaper than alcohol; it shrinks the tissue very slightly and the natural colours are fairly well retained, though somewhat dulled. The main objections are that the method is still somewhat costly (roughly the fluid costs 1s. 6d. per gallon) and that a greyish sediment is for many months gradually deposited on the glass of the jar and on the specimen itself. Not for some little time did it occur to me that possibly a watery solution of certain salts might suffice. Once the idea did present itself I assiduously experimented with the four compounds at the end of the foregoing list. It was early evident that so far as the mere preservation of a specimen was concerned a very simple saline solution was all that was necessary; but in order to avoid shrinkage and persistent oozing of tissue fluids with consequent discolouration of the menstruum, and to conserve as far as possible the natural colours, certain combinations and preliminary treatment were necessary. This, then, was the crux of the whole question, and only after numerous experiments and long waiting was I able to assure myself that the method which I finally fixed upon was as free from objection as possible. Before describing the actual method I may say that in my opinion it is almost certainly impossible to preserve specimens for an unlimited time in such a way as to retain their natural colours in the fresh state, and that at most we can only hope to retain the natural colouring to such an extent as will show differences of colour corresponding in kind to the differences evident in the fresh specimen.

Apart from preliminary treatment, the liquid which I have employed during the last two years for preserving museum specimens at the Glasgow Samaritan Hospital for Women is composed as follows: common salt, five ounces; potassium nitrate, one ounce; chloral hydrate, one ounce; water, 100 ounces. The above solution answers all the objections previously stated. 1. The cost is about 4d. per gallon, as compared with 2s. 6d. for 80 per cent. alcohol (methylated spirit) and 1s. 6d. for the final preservative

liquid in Kaiserling's method. The cost of the preliminary treatment is the same as in the old method and much less than in Kaiserling's, as 95 per cent. alcohol is not required. 2. The shrinkage of specimens is distinctly less than in Kaiserling's method, and much less than in the old method. What little shrinkage is present is due to the necessary preliminary treatment. 3. Retention of colour is after all the chief point, and, as my specimens show, this has been retained in a very high degree and without the troublesome after-treatment which is necessary in Kaiserling's method.

The preliminary treatment is the same as in the old method. As the preservative liquid has little or no coagulant powers the specimen if put into it without preliminary treatment would remain too soft and by tension and compression distort the original relations and measurements. After trimming, if necessary, and washing in running water for several hours, the specimens are put into a large excess of methylated spirit for from six hours to as many days, according to the size and nature of the specimen, changing the spirit once or twice should there be much oozing of tissue fluids. In the case of large or soft specimens the addition of 0.5 per cent. of formalin accelerates the "setting" of the tissues. From this the specimen is transferred direct to the preservative liquid, in which it occasionally floats for a short time until it is sufficiently permeated. In some cases, after a few weeks it may be necessary to renew the liquid; beyond this it is only necessary to replenish the jar with water to make up for that gradually lost by evaporation. Loss of water may of course be prevented by sealing the cover of the jar, but this interferes with the abstraction of the specimen for detailed examination, and as the cost of the water is *nil* there is no advantage in sealing the jar.

It only remains to enumerate the advantages of this method over any of the older ones. 1. The item of cost is important. So long as the results are even only equal to those of the other methods the cost should decide the adoption of one method in preference to another. Further, this method enables men in private practice to preserve many interesting specimens at a small cost, which would otherwise be lost. Even in hospitals it is clear that, *otheris paribus*, the cheapest method should be employed. 2. It is at least as simple to begin with as the old method, and requires less after-attention; it is simpler at all stages than Kaiserling's method. 3. As regards the action of light, specimens thus preserved do not require to be kept in the dark; they are unaffected even by strong sunlight. 4. The preservation of colour is more nearly complete than in the older methods. 5. It has the advantage of portability. The solid ingredients can be carried any distance, and the liquid prepared as required. 6. As it is non-volatile in character jars require to be replenished with water only if the solution remains clear. 7. Its non-poisonous and non-irritating properties. 8. Its action on the cellular elements of the tissues is negative, enabling microscopical sections to be made after long intervals. In the older methods microscopical sections made after the lapse of more than a year or two stain diffusely. 9. Shrinking of the specimen is very slight, as indicated by actual measurements.

Little need be said with regard to the several ingredients of the liquid except in a general manner. It is well known that common salt itself only acts as a permanent preservative in the form of strong brine. The addition of a small proportion of chloral hydrate greatly reduces the proportion of common salt necessary and adds to the efficiency of the liquid as a preservative. As far as the retention of colour is concerned the potassium nitrate is indispensable. In an emergency a specimen may be put temporarily into the preservative liquid direct, but the result in this case is that the specimen tends to become uniformly stained or coloured by diffusion, while the liquid part of the fat (if there is any present) collects on the surface. Rarely, also, a fungoid growth may form on the surface, necessitating renewal of the liquid. The specimen must at some time be subjected to the "preliminary treatment" if the proportions observed in the fresh state are to be retained.

Glasgow.

HOSPITAL SUNDAY AT BATH.—The offertories at many of the churches in Bath on Nov. 3rd were devoted to the funds of the Royal United Hospital, the sum of £224 being collected.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### RETENTION OF URINE FROM THE PRESENCE OF A BOTTLE IN THE RECTUM.

By JOHN GOOD, M.R.C.S. ENG., L.S.A.

ONE evening in January, 1895, a soldier brought me a message to visit his father, aged 74 years, a club patient living three miles distant in the country, as he was "in great pain and could not pass water." I rode out and catheterised, finding no obstruction or difficulty in passing a No. 10 gum-elastic catheter. The old man was in bed. I advised hot applications and told him to send me word next morning if he was unable to micturate. Next morning the soldier reappeared; his father was again in agony and again was as readily relieved. The preceding evening I had been informed that his bowels were acting well; this morning I learned that he had diarrhoea and that the stools were bloody, so I made a rectal examination and felt a firm, hard, smooth, round body that I could not recognise or learn anything about from the patient. The idea of its being a foreign body did not then occur to me. Accordingly I wrote to my partners in the adjacent town, stating my difficulty and asking for a consultation next day. The following morning I again catheterised and worried my patient into confessing that he had put a bottle there to "plug the opening" as his diarrhoea had troubled him so much, and "it had slipped in." My fingers were not long enough to grasp the convexity of the bottle, nor could I drag it forward from off the coccyx, where it was tightly lodged with its neck tilted upwards and forwards towards the base of the bladder, but by looping the gum-elastic catheter I had just used I was able to raise the bottle sufficiently off the coccyx to pass the loop beneath it and up around the body of the bottle, then with a hard pull I dragged it forward and it simply "shot out" of the bowel. The bottle contained only a little bloody mucus, and was long-necked and cylindrical, as used for Worcester sauce, but I regret that I did not take its dimensions. On its removal all urinary and bowel troubles ceased. This case is, I believe, unique in retention of urine being produced mechanically through the casual presence of a foreign body in the rectum.

Stockport.

#### CURIOUS SYMPTOMS AFTER EXTRACTION OF A TOOTH.

By W. COLLIER PRIDHAM, L.D.S. ENG.

I HAVE just seen an article by Dr. A. Stanley Green which appeared in THE LANCET of August 10th, p. 372, and I should like to be allowed to report a similar case, which, however, differed from Dr. Green's in that the patient under my care had taken no anæsthetic, though showing the same symptoms as those described.

My patient was a man, aged 30 years, who applied at the Royal Dental Hospital of London to have a fractured tooth removed. The fracture had been done a week previously, and in the interval the man had suffered extreme pain. The roots of the first lower molar on the left side were removed without difficulty, the patient, however, immediately subsequently to the operation complaining of great pain. This was almost immediately relieved by the application of hot water to the gums, and at this point the patient appeared to be quite well. Within five minutes of the extraction he complained of severe "pins and needles" in the legs and arms, became rigid and quite cold, with a bad colour, hurried respirations, dilated pupils, strong contraction of the muscles of the arm and forearm, flexure of the fingers, and considerable adduction of the thumbs. The teeth were clenched, but the patient was able to answer questions with some difficulty, and he remained conscious during the whole attack which lasted for about half an hour. The hands and arms were

well chafed and doses of sal volatile were administered. As in Dr. Green's case, the patient was eager to be allowed to sit up, at least partially. The symptoms yielded to continued efforts to restore warmth, and the man recovered slowly till he was able to warm himself by swinging his arms about. He eventually left the hospital apparently little the worse for the attack.

Highbury New Park, N.

## A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORAGANI De Sed. et Caus. Morb., lib. iv., Proœmium.

#### ST. GEORGE'S HOSPITAL.

A CASE OF DOUBLE OVARIAN CYST COMPLICATED BY  
SUPPURATIVE CALCULOUS CHOLECYSTITIS.

(Under the care of Mr. H. W. ALLINGHAM.)

THE co-existence of gall-stones with some other abdominal lesion is by no means rare, and the explanation given below by Mr. Keyser is probably true—namely, that the flow of bile is interfered with, thus predisposing to the formation of calculi. A further cause may be found in the fact that an abdominal tumour of any great size will tend to cause constipation, and thus favour intestinal decomposition, with the result that micro-organisms are more likely to make their way up the bile-ducts. For the notes of the case we are indebted to Mr. Charles R. Keyser, surgical registrar.

A woman, aged 64 years, was admitted into St. George's Hospital on Sept. 9th, 1901, under the care of Mr. H. W. Allingham, with a history that for three months she had noticed pain and swelling in the right side of the abdomen which had lately increased in size. The pain was gradually becoming worse; a fortnight before she had an attack of diarrhoea and sickness which, however, only lasted for a day. Since then there had been no vomiting and the bowels had acted daily. On admission she looked thin and ill and her temperature was 100° F. The tongue was coated. Examination of the abdomen showed that the right lower half was distended and occupied by a soft fluctuating tumour, the upper border of which almost touched the level of the umbilicus and was well defined, whereas the lower edge could not be felt. There was some tenderness over the right side of the tumour and a thrill could easily be obtained on palpation. It was noticed that in the lowest part of the cyst on the right side there was a small, rounded, hard mass to be felt. Per vaginam a large soft mass could be felt on both sides of the pelvis which was continuous with the abdominal tumour; fluctuation was easily obtained from one side of the pelvis to the other and also from the tumour as felt per abdomen to the mass in the pelvis.

On Sept. 16th, an anæsthetic having been given, Mr. Allingham opened the abdomen in the middle line below the umbilicus and found a large multilocular, left ovarian cyst which projected over on to the right side. Owing to the size of the cyst it was tapped *in situ* and a good deal of clear, straw-coloured fluid was evacuated. The cyst was then brought to the surface, the pedicle ligatured with strong silk by means of the Staffordshire knot, and the tumour removed. It was then found that there was a right ovarian cyst of the size of a clenched fist, and this was removed in a similar manner. There were very few adhesions present. Before closing the wound a tumour was felt close under the liver and an incision was made over the mass just to the right of the middle line after suturing the lower wound. The swelling was due to a distended gall-bladder which was opened and about two ounces of pus were evacuated. Three faceted gall-stones were also seen and removed. The gall-bladder was sutured to the skin at the lower part of the wound, the upper part being closed, and iodoform gauze lightly packed into the gall-bladder. The patient was a good deal collapsed after the operation, but

soon rallied when strychnine and brandy had been injected subcutaneously and an enema of normal saline solution had been given. The temperature, which for the first three days had been slightly raised at night, became normal and except for temporary retention of urine, which necessitated the use of a catheter, the patient made an uneventful recovery, and left the hospital on Oct. 12th, both wounds being practically healed.

*Remarks by Mr. KEYSER.*—The chief interest in this case lies in the fact that in spite of her age and in the severity of the operation the patient made an uneventful recovery; also that the pathological condition which in all probability made her seek medical advice was not the enlargement of the ovarian cysts but the suppurative cholecystitis, the existence of which was not even thought of either by the patient or the surgeon until the abdomen was actually opened. The pain and temperature had been considered due probably to a twisted pedicle of the ovarian cyst. As this was not the case some other cause of the symptoms was immediately sought for. This shows, therefore, that a surgeon ought not to be content with treating any obvious disease only, but also to make sure, as far as possible, that there is no other lesion which might account for the symptoms. Personally I have no doubt that the temperature and the pain were in this case caused by the trouble in the gall-bladder and not by the ovarian cysts. The manner in which gall-stones are formed and suppuration takes place is also of interest. Probably the sequence of events is as follows. The presence of the ovarian cysts (in this case), by preventing free peristalsis of the intestines, caused a stagnation of bile in the gall-bladder: this diminished the power of resistance of the walls of the gall-bladder by lowering its vitality and allowed the entrance of the bacillus coli communis; this latter, together with the partial stagnation of the bile, was then followed by precipitation of cholesterin and the formation of the calculi. The original cause of the trouble—i.e., the pressure of the ovarian cysts—still continuing, and probably increasing, allowed the micro-organisms to enter the gall-bladder in larger numbers, and suppuration was the result. There has always been some difficulty in deciding why in some cases micro-organisms cause the formation of gall-stones and in others acute suppurative cholecystitis, and the reason has been ascribed by some to virulence of the bacteria; a mild attack being followed by the formation of calculi, whereas suppurative cholecystitis is the result of a large dose of the virus. This theory seems to be borne out by the case related above. I am much indebted to Mr. Allingham for permission to publish this case.

## Medical Societies.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

#### *Ulceration of the Œsophagus and Stomach due to Swallowing Strong Hydrochloric Acid: Lessons of Treatment Deduced from Three Cases.*

A MEETING of this society was held on Nov. 12th, Mr. WARRINGTON HAWARD, the Treasurer, in the absence of the President, being in the chair.

Mr. C. B. KEETLEY read a paper upon Ulceration of the Œsophagus and Stomach due to Swallowing Strong Hydrochloric Acid: Lessons of Treatment Deduced from Three Cases, which is published in full at p. 1328 of the present issue of THE LANCET.

Mr. E. P. PATON mentioned the case of a woman who had been under his care suffering from the effects of acid poisoning. He at first treated the case by the passage of a tube and washing out the stomach, and the patient for the first few days improved considerably. The stomach, however, became distended and very tense, but not dilated, and it could be felt in the abdomen as a hard ball of about the size of a foetal head. This distension was attributed to obstruction both at the pylorus and at the cardiac end of the Œsophagus. The abdomen was opened, an incision was made into the stomach, and a finger was passed through the pylorus into the duodenum. The duodenum was, however, so ulcerated that it gave way and a pyloroplastic operation had to be performed; the

patient, however, died a few days later. At the necropsy it was found that there was only one small portion of healthy mucous membrane lining the stomach. Mr. Paton regretted that he had not performed a gastro-enterostomy, as he thought that that would have given the patient the best chance.

Mr. CLINTON DENT was of the opinion that in a large proportion of the cases the injury was at the pyloric end of the stomach. He said that pyloroplasty was to be preferred to Loreta's operation as it was possible in that way to obtain a good view of the mucous membrane of the stomach and duodenum and to estimate the extent of the mischief. He did not consider that a Murphy's button was a satisfactory arrangement and he advocated either Senn's plates or stitching. He thought it best to feed the patient as soon after the operation as possible and said that the food should be given hot.

Mr. HAWARD said that the Œsophagus was seldom constricted by the effects of poison, and that often when swallowing was difficult a fair-sized bougie could be passed into the stomach, showing that the constriction was of a spasmodic nature. He was in favour of the plastic operation on the pylorus, and then if there was any difficulty, such, for instance, as the ulceration of the duodenum, a gastro-enterostomy could be performed. He preferred to use Senn's plates rather than Murphy's button, and he did not think that any contraction was likely to occur around the gastro-enterostomy opening when it was sewn up with a continuous suture. He was of the opinion that it was extremely important to feed the patients as soon after the operation as possible. He had never had cause to regret feeding a patient too soon after operation, but he had had cause to regret not having done so earlier in certain cases.

Mr. KEETLEY, in reply, said that the case which Mr. Paton had related was only another example of the necessity for early operation. He thought that Loreta's operation was to be preferred and was certainly safer than pyloroplasty or gastro-enterostomy. He was in favour of using a Murphy's button, as that seemed to prevent the "vicious circle"—i.e., the passage of the contents of the stomach into the duodenum and then through the gastro-enterostomy wound into the stomach again. Even if the Murphy's button fell back into the cavity it could easily be removed through the stomach, and the operation was attended by very little risk.

### MEDICAL SOCIETY OF LONDON.

#### *Exhibition of Cases.*

A MEETING of this society was held on Nov. 11th, Dr. W. H. ALLCHIN, the President, being in the chair.

Mr. T. H. KELLOCK showed a case of Symmetrical Disease of the Ankle-joints in a child, aged three years and four months. There was a history of tuberculosis on the mother's side and the father had had rheumatism in both knees two months ago. There was no history of gout or syphilis. There was one other healthy child. The swelling of the ankles was first noticed a year previously, the one ankle being affected a little while before the other. Four months ago the skin became ulcerated over both ankles. When the patient was admitted to the hospital the ankle-joints were enlarged and pulpy, without pain or tenderness. There were several superficial ulcers round both, discharging a little pus; these had almost entirely healed under simple treatment. There was a fusiform swelling on the back of the carpus of the left hand. This, too, was neither painful nor tender. There was no enlargement of glands with the exception of some in the left groin, probably caused by a small abrasion in the knee. The spleen could just be felt. No signs of tubercle were present in the lungs or other viscera. The temperature was normal and the child's general health appeared to be good. The case was probably one of osteo-arthritis.—Mr. J. HUTCHINSON, jun., suggested that the case was a tuberculous affection of the joints and said that he had seen several cases in children with multiple tuberculous affection of the joints which recovered completely.—Mr. KELLOCK replied that had the ulceration been tuberculous it would hardly have healed up so rapidly under the most simple treatment.

Mr. M. S. MONIER-WILLIAMS showed a case of Ulcerative Colitis with Paralysis of the Eleventh and Twelfth Cranial Nerves in a man, aged 56 years, who had enjoyed good health until May, 1897, when diarrhoea and hæmorrhage commenced from no apparent cause. The motions were

excessively offensive, semi-fluid in character, and containing, besides blood and mucus, occasionally a very little pus. There was no pain except a gripping pain when passing motions, which varied in number from five to 15 in 24 hours. There was no rise of temperature nor was there vomiting. The examination of the abdomen and the rectum revealed nothing abnormal. A course of mercury and iodide of potassium had little or no effect. Rectal irrigations with a solution of nitrate of silver (10 grains to the pint) and of a saturated solution of boric acid held the complaint in check for a time and a course of sulphur waters at Llandrindod Wells and also at Harrogate benefited the patient for a little, but on the whole he got steadily worse until December, 1900, when he was excessively ill. He had from 10 to 20 hæmorrhagic stools daily. There were extreme emaciation and loss of control of the sphincter ani. Dr. Hale White in consultation agreed that right-sided colotomy offered the best chance of saving the patient's life, and Mr. George Turner did the inguinal operation. As soon as the wound was healed and the artificial anus was ultimately fitted with the plug, now exhibited, he rapidly improved. He recovered control over the sphincter ani and was able to follow his ordinary life without inconvenience. On Jan. 4th, 1899, the same patient suddenly became quite hoarse in his voice, felt a little sick, but not otherwise ill, and noticed that his tongue on protrusion went to the right side. On examination the right vocal cord was found to be paralysed, the tongue was deflected to the right side, and the right side of the palate was partially paralysed. It was considered probable that there was a vascular lesion, probably thrombotic, affecting the nuclei of the hypoglossal and spinal accessory nerves on the right side. The patient had an apical systolic cardiac murmur. Subsequently the upper part of the right trapezius muscle showed signs of wasting and there was now complete wasting of the right side of the tongue. The patient recovered his voice, but the right vocal cord remained much as before, the left coming over to meet it.—Mr. GEORGE TURNER said that the colotomy had been performed in order to allow of more efficient local treatment being carried out. He suggested that the symptoms might have been due to thrombosis of the mesenteric vessels and a somewhat similar case had been published by Sir W. Gull.—The PRESIDENT suggested that considering that the patient had an affection of the mitral valve it seemed more probable that the paralysis of the cranial nerves was due to an embolus rather than to thrombosis.—Dr. R. L. BOWLES pointed out the relation which these cases bore to the nervous system and quoted a case in which after several months recovery took place.—Mr. L. A. BIDWELL suggested that an anastomosis between the ileum and the sigmoid would be the right means to treat these cases of ulcerative colitis, as that would place the affected part out of circuit.—Dr. HALE WHITE thought that the short-circuiting of the gut would be the most satisfactory treatment if one could be certain that there was no ulceration of the sigmoid or rectum.

Mr. W. H. BATTLE showed a Boy who Broke his Left Thigh in April of this year. The thigh was put up in plaster-of-Paris; this was removed at the end of three weeks on account of excessive swelling of the thigh, which was said to have been three times the size of the other one. Since that time the femur had united and now the patient was able to walk about. The swelling was said to be diminishing in size. The left femur was changed into a fusiform bony swelling measuring 15 inches, twice the size of the left. There was no pain and the child appeared to be in good health and got about. There was no softening and no enlarged glands could be felt.—Mr. GEORGE TURNER suggested that the case was one of exaggerated callus and mentioned a similar case in an adult in which it eventually entirely cleared up.—Mr. BATTLE, in reply, said that he thought the diagnosis lay between sarcoma, excessive callus, and excessive extravasation of blood owing to a scurvy condition. He had never seen such excessive callus in a child but had in an adult suffering from locomotor ataxia.

Mr. H. L. BARNARD showed two cases of Snap-thumb, one in an adult on whom he had operated, the patient being perfectly cured, and the other in an infant, one and a half years old.

Mr. A. PEARCE GOULD showed a case of Actinomycosis of the Breast in a girl, aged 19 years. She had enjoyed good health until the end of August, 1901, when she complained of pain of a stabbing character in the left mammary region. Five weeks later she noticed that the left breast was more

prominent than the right. This increased until her admission into the Middlesex Hospital on Oct. 29th. The breast was then considerably and uniformly enlarged, fluctuating throughout, but neither painful nor tender. The skin over it was not discoloured. An incision was made and several ounces of green, slimy, offensive pus escaped. There was imperfect resonance and other evidence of thickening of the pleura. In the pus the mycelium of actinomycosis was found. All the hitherto recorded cases of actinomycosis of the chest-wall, including the mamma, had been secondary to disease of the lungs, pleura, and liver, and this was no exception to that rule. But the case was interesting because of the very slight evidence of the pulmonary disease and the rather unusual character of the abscess.—Dr. A. F. VOELCKER suggested that the primary disease was in the pleura and that the breast was secondarily involved. He mentioned the case of a boy who had died from this disease in whom numerous nodules of recent actinomycosis had been found in the skin and old foci in the pleura and liver.—Dr. E. MARKHAM SKERRITT (Bristol) mentioned a case in which there was evidence of actinomycosis of the lung, later there was evidence of involvement of the liver from which the patient died, and at the necropsy the only evidence of involvement of the lung was a track of scar tissue.—Mr. PEARCE GOULD said that there was probably more than one form of streptothrix giving rise to the condition known as actinomycosis.

Mr. A. CARLESS showed a case of Amputation of the Whole Upper Extremity for Chondro-sarcoma in a woman, aged 54 years. For three or four years previously she had complained of pain in the muscles of the right shoulder and had been treated for muscular rheumatism. Ten months previously she had noticed a hard swelling below the right clavicle; the pain increased and became shooting in character, extending down to the finger and keeping her awake at night. Two months before she was seen by Dr. Soltan Fenwick at the London Temperance Hospital and an operation was advised. When first seen at King's College Hospital a swelling only existed below the right clavicle in the region of the coracoid process. An x-ray examination gave no definite result. When admitted the sub-clavicular swelling was large and another softer one had developed below the outer portion of the scapular spine. An indefinite mass could be detected in the right axilla, and on inspection the whole contour of the shoulder was altered, suggesting a growth of the scapula, enveloping the head of the humerus which could be felt to be normal in size and position. The movements of the shoulder were limited, especially abduction and rotation, and some crepitus was noticeable in the joint. The muscles of the right arm were atrophied. There was no œdema of the arm and the radial pulses were equal on the two sides. No glands could be felt either in the axilla or in the supra-clavicular fossa. The whole extremity was removed by Berger's method. The patient left the hospital after three weeks with the wound completely healed. The growth proved to be a chondro-sarcoma.

Mr. J. LYNN THOMAS showed the photograph of a case of Occipital Meningocele. The patient was a child, aged four months, who had had a tumour at the back of the head since birth which had been getting gradually larger; it was attached to the skull by a pedicle over the posterior fontanelle and was of the shape of a very large fetal head. It was translucent and fluctuating and had been tapped several times, and it had a number of large veins visible upon its surface when the skin was thin. The child had never been able to move its head on account of the enormous size of the meningocele. Operation was performed on Sept. 24th, 1901. Skin flaps were dissected off the meningocele, leaving the numerous veins untouched. A pair of strong occlusion forceps, six inches long, were then applied to the pedicle and gradually closed, whilst the meningocele was tapped. The pedicle was rendered water-tight by means of a Gely's suture and two rows of continuous sutures. The skin flaps were brought together and collodium dressings were applied. The recovery was uneventful.

Mr. W. H. BATTLE showed a case of Closure of Artificial Anus after Operation for Chronic Obstruction. The patient was a man, aged 49 years. He had been in good health until Jan. 1st, 1899, when he felt pain in the lower part of the abdomen, with constipation. About 14 days later he had offensive vomiting and diarrhoea, mucus was passed by the bowel, and he lost flesh. An exploratory incision was made in the median line below the umbilicus. The large

intestine was found to be thickened and distended. The upper part of the sigmoid flexure was fixed to the pelvic brim. Below this point a lump could be felt, thought to be malignant growth. There was some adhesion of the small intestine to the swelling. The incision was closed and a left inguinal colotomy was performed. A month later he was discharged, wearing a colotomy belt. On June 3rd, 1899, he had some return of the symptoms and the abdomen was reopened in the median line. The growth was found to be smaller than at the previous operation, but still fixed to the pelvic brim. On April 17th, 1901, he was readmitted. Up to Christmas, 1899, he discharged faeces only by the colotomy opening, but about then he began to pass faeces per rectum. The first time he had severe pain in so doing, the pain lasting two hours. Since then faeces had passed both ways. He had greatly improved in health. The abdomen was opened in the median line through the old scar, but no growth or intestinal obstruction was found. On May 30th the colotomy opening was closed and the patient was discharged on the fortieth day with the wounds almost healed.

### CLINICAL SOCIETY OF LONDON.

#### *The Operative Treatment of Cancer of the Pyloric Portion of the Stomach.*

A MEETING of this society was held on Nov. 8th, Mr. HOWARD MARSH, the President, being in the chair.

Mr. B. G. A. MOYNIHAN read a paper on the Operative Treatment of Cancer of the Pyloric Portion of the Stomach. He said that an examination into the records of cases of recurrence of malignant disease of the stomach after operation showed that the return of the growth was almost always local, in the stomach wall at or near the line of section, or in the glands or lymphatic vessels which drained the affected area. It had been estimated by Hemmeter that recurrence occurred in 99 per cent. of cases submitted to operation. In order to perform an operation which should prevent recurrence they must base such operation upon a knowledge (a) of the mode of invasion of the stomach by the primary growth, and (b) of the lymphatic distribution in the stomach and of the position of the glands into which the vessels drained. The researches of Borrmann and Cuneo had shown that the most common point of origin of carcinoma in the stomach was 2.4 centimetres from the pylorus, on or near the lesser curvature. From that point the disease spread gradually, but more rapidly and to a greater extent towards the body of the stomach than towards the duodenum. On the stomach side the growth was not equal in all directions; there was a pronounced tendency for the induration to spread towards the curvatures. Towards the duodenum the spreading was slower and invariably less extensive. If sections were made at the edge of a malignant neoplasm it would be found that the edge of induration corresponded to the limit of growth in the mucosa. In the submucosa the growth extended much further in a solid unbroken mass, and beyond the edge of this mass isolated nodular deposits of growth were present, which became smaller as the distance from the tumour increased. The subserous and serous coats were implicated approximately to the same extent as the mucosa. The lymphatic glands of the stomach were situated chiefly along the vessels. 1. The coronary group lay along the lesser curvature. These glands were continuous at the origin of the coronary artery with those along the upper border of the pancreas. 2. The hepatic group lay along the hepatic artery and some of its members along the pyloric artery. The glands of the greater curvature lay along the right gastro-epiploic artery. At the pylorus they were numerous and close together and passed behind the stomach to the head of the pancreas. The lymphatic vessels draining into these glands passed very obliquely in the walls of the stomach. Three chief lymphatic areas of the stomach might be described. An area along the lesser curvature, an area along the greater curvature, and an area comprising the greater tuberosity of the stomach extending up to the oesophagus and on the greater curvature as far as the limit of supply of the left gastro-epiploic artery (as far as the gastro-splenic omentum). In cases of malignant disease of the pyloric portion of the stomach the growth extended in the direction of the curvatures and the glands of the first two groups were affected, but the glands of the third group

and the area which they drained escaped. This latter area might be looked upon as an area apart, as one into which extension very rarely occurred, and as one, therefore, the lymphatic vessels and glands of which remained healthy. The term "isolated area" might well be employed to describe it. Upon the following facts an operation should be based: (1) malignant disease of the stomach most often commenced near the pylorus, just below the lesser curvature; (2) from its point of origin it spread most widely in the submucosa and chiefly towards the cardiac end of the stomach; (3) on the duodenal side it spread tardily and never extensively; (4) the drift of the growth was towards the curvatures; (5) the lymphatics draining the affected area passed to glands lying along the coronary and pyloric arteries above and the right gastro-epiploic and gastro-duodenal arteries below; and (6) the greater tuberosity of the stomach (the "isolated area") was very rarely involved. In order to ensure complete removal of the primary growth of the infiltrated lymphatic vessels and of the glands into which those vessels drained, it would be necessary to remove the stomach as far up on the lesser curvature as the point of abutment of the coronary artery, and on the greater curvature as far as the gastro-splenic omentum, and to remove the first portion of the duodenum. In order to make the operation simpler and quicker, a preliminary ligature of the coronary, the pyloric, the gastro-duodenal, and the left gastro-epiploic arteries was performed. After removal of this portion of the stomach, the anastomosis between the "isolated area" and the small intestine might be made by end-to-end approximation by Kocher's method or by suture of the cut ends and the performance of a separate gastro-enterostomy. The coronary artery was ligatured first, and it was to be found in the "ligament of Huschke," the falx coronaria, the folds of which inclosed it. The position of the artery could be defined by lifting up the liver and pulling the stomach downwards and outwards until a ridge was raised up in the peritoneum by the underlying vessel. The pyloric and gastro-duodenal arteries were best ligatured as they left the hepatic artery. The hepatic artery could be found just above the pylorus and could be made clearer by dragging the pylorus downwards and to the right.

Dr. P. H. PYE-SMITH said that Mr. Moynihan had called attention to the fact that that portion of the stomach which was situated below and to the left of the cardiac orifice was much less liable to be affected by carcinoma than was the pyloric end. This portion of the stomach was anatomically distinct from the rest of the stomach, being lined with epithelium of a different type from that which lined the rest of the stomach. He pointed out that the lesser curvature of the stomach was very much more frequently affected than the larger. The greatest difficulty in dealing with these cases surgically was the fact that an early diagnosis could seldom be made and long before any mass could be felt in the abdomen the disease had made such progress that it was impossible for the surgeon to remove the growth. He considered that in cases of pyloric obstruction with dilatation of the stomach it was better to short-circuit the intestine, which relieved the most acute symptoms due to the dilatation and allowed the patient to recover his general health before the more severe operation of pylorotomy was performed. He mentioned the case of a woman with an annular stricture of the colon in which colotomy was performed and the immediate symptoms were relieved: the patient was extremely collapsed after the operation, and he felt certain that had the severer operation of removing the annular stricture, which was very localised, been attempted at the time it would have been attended by a fatal result. The patient rapidly improved in her general health and a few weeks afterwards the stricture was removed, and five years later the patient was in good general health.

Dr. NORMAN MOORE said that it was most unusual for growth to spread from the pyloric end of the stomach into the duodenum. During nine years in which he had performed many necropsies he had never seen a single case in which the growth had extended from the stomach to the duodenum, although he had seen growths protrude through the pylorus into the duodenum but never involving the wall of the duodenum. He doubted whether the area of the stomach described by Mr. Moynihan as the "isolated area" was so rarely affected with new growth as he had made out. Out of 30 cases of carcinoma of the stomach in 11 the whole of the stomach wall was involved from the pylorus to the cardiac end, though he quite agreed that the cardiac end

was very much less liable to be affected than the pyloric end. He considered that when the stomach was involved by new growth it was generally in the form of one of the four following varieties: in the first variety the growth was confined to the pylorus and owing to the obstruction gave rise to enormous dilatation; in the second, which was commoner, the growth infiltrated the gastric wall to a greater or lesser extent along both curvatures, involving sometimes the whole stomach and even spreading to the œsophagus; in the third the growth involved the cardiac end of the stomach, and in this situation was always loose and very vascular so that hæmorrhage was liable to occur from it; and in the fourth the growth began in an old ulcer and this was commonly situated on the posterior wall of the stomach. Of secondary growths the most common situation was undoubtedly the liver; out of 30 cases it had been present in the organ in no less than 14. Next to the liver it was most usual to find the growth on the under surface of the diaphragm, and next in frequency in the lumbar glands. With regard to the duration of the disease he had known one case in which it had lasted for 60 months and in another it had lasted for 38 months. In most cases, however, the patients died within 18 months of the first symptoms. He thought that if the disease had lasted for seven months it was probable that secondary deposits would be found in other organs.

Mr. CHARTERS J. SYMONDS said that these cases were very disappointing so far as a cure was concerned; out of about 20 cases there was only one in which he felt justified in performing the operation of pylorotomy. In this case no tumour could be detected on examination. The growth was so limited that it seemed possible to remove it completely; when, however, further examination was made it was found impossible to remove the whole disease owing to the invasion of the posterior wall. He thought that a gastro-enterostomy would give as much relief as a pylorotomy, and it was not attended with the danger of the latter operation. He had seen cases which had extended over 12 months in which there were no secondary growths in the liver.

Mr. A. E. BARKER said the whole question turned upon the early diagnosis of the disease. He did not think, however, that the patients in whom the pylorus had been removed lived any longer than did those in whom a gastro-enterostomy had been performed. He referred to a case reported by Kocher in which the patient had lived nine years after the removal of the pylorus; he thought that such a favourable result might depend upon the nature of the growth and be similar to the case recorded by Dr. Norman Moore, in which the patient had lived 60 months. He referred to the great risk in exploring the abdomen in cases of carcinoma as compared to the risk in cases of non-malignant affections of the abdomen.

Dr. S. H. HABERSHON divided the cases into two classes—the first in which there were complete obstruction of the pylorus and dilatation of the stomach and the second in which the wall of the stomach was involved. These cases usually gave rise to symptoms of gastric irritation. No tumour could as a rule be detected in the abdomen in these cases. In one case which owing to the small size of the tumour seemed suitable for operation the patient died soon after its removal. The greatest difficulty in these cases was to distinguish gastric catarrh or simple ulceration from invasion of the stomach by new growths.

Mr. C. A. BALLANCE said that Mr. Moynihan had indicated the lines on which true advance in this branch of surgery would take place. He had always regarded carcinoma as a local infection and if the cases could only be diagnosed early enough there was hope of a permanent cure. He mentioned a case in which, owing to the growth not being felt, operation had been postponed for some months, and had the operation been performed when the patient was first seen the chance of a cure would have been far better.

Mr. G. H. MAKINS said that he should be interested to see the results of further cases operated on in the manner suggested by Mr. Moynihan. He mentioned the case of a young woman from whom he removed the pylorus as the growth seemed so limited. About seven months later the patient died from recurrent growths along the pancreas. He was of opinion that had he short-circuited the intestine the patient would have lived as long. He would certainly recommend short-circuiting rather than removal of the pylorus in most cases.

M. MOYNIHAN, in reply, pointed out that in 70 per cent. of the cases the growth was in a part of the stomach which

admitted of its removal. With respect to diagnosis he said that with a patient under medical treatment for gastric trouble at an age when one might expect to meet with cancer of the stomach, and when there was an absence of free hydrochloric acid in the stomach contents, then, whatever the physical signs and clinical condition might be, it was his practice to advise an exploratory incision. This had permitted him to obtain cases at an earlier date than elsewhere. Even in the early stage, however, the radical operation might not be permissible, because the disease might already have got beyond the limits of successful removal. He joined issue with Mr. Barker in respect of his view that life after gastro-enterostomy was at all comparable with life after partial gastrotomy or pylorotomy. Statistics showed at least one year's clear gain in favour of the latter. The improvement after gastro-enterostomy was great and immediate, but was quite ephemeral. He suggested that the attitude of surgeons towards these operations was their attitude of some years since towards operation for cancer of the breast. Gradually they had extended the limits of that operation, and no doubt as their knowledge increased they would do the same in regard to operations for cancer of the stomach. He believed that if attacked early by an operation on the lines he had described, they might hope in the future to obtain far better results than had been the case hitherto.

## OBSTETRICAL SOCIETY OF LONDON.

*Sloughing Fibroid of the Left Uterine Cornu showing Abnormal Relations.—Gonorrhœal Pelvic Peritonitis.—Tubal Mole.—Exhibition of Specimens.*

A MEETING of this society was held on Nov. 6th, Dr. PETER HORROCKS, the President, being in the chair.

Mr. ALBAN DORAN and Dr. CUTHBERT LOCKYER, communicated a paper on Sloughing Fibroid of the Left Uterine Cornu showing Abnormal Relations. The patient from whom the fibroid was removed, a single woman, aged 30 years, had been subject for a month to symptoms of pelvic inflammation with fever. There was an irregular moveable mass in the left fornix, rising into the left iliac fossa, and connected with a small anteflexed uterus. Mr. Doran performed supra-vaginal hysterectomy, removing the uterus and tumour with the left appendages; the right tube and ovary were spared. The patient recovered. The tumour, five inches in long diameter, was much larger than the uterus, projecting outwards rather than upwards from that organ. It was a true fibro-myoma in a necrotic condition, and adhered to the intestine and the omentum at its blunt-pointed outer extremity. This degenerative change apparently accounted for the febrile symptoms. At first sight the tumour simulated a fibroid in an undeveloped uterine cornu, but the Fallopian tube and ovarian ligament arose posteriorly, and not externally, and were attached to a deep groove between the uterus and the tumour. The left round ligament arose from the under surface of the tumour somewhat posteriorly, passing under it and forwards to the inguinal canal. A tumour with somewhat similar relations to a uterus much smaller than itself had recently been figured without any clinical history by Doederlein in Küstner's "Kurzes Lehrbuch der Gynäkologie" (Fig. 146). This outward growth of a fibroid of the cornu without outward displacement of the corresponding tube and ovary was very unusual. The sloughy state of the tumour demanded its removal, and the uterus could not possibly be separated from a growth of this kind, so that it was also removed.—After some remarks by the PRESIDENT, Dr. A. H. N. LEWERS said that among other points of interest the case described in the paper had an important bearing on the question of the mortality to be expected in cases of fibroid tumours of the uterus. Statistics had been published according to which the mortality from fibroids apart from operation appeared to be 0.000138 per cent., or about 3 in 2,000,000 cases. Now in such a case as Mr. Doran's, one of sloughing subperitoneal fibroid, which had already set up symptoms of pelvic inflammation with fever, it could not be doubted that apart from operation the case must have ended fatally. Leaving out of the question the other possible causes of death in cases of fibroids, was sloughing such a very rare thing? He had himself seen two cases comparatively recently. One had been already published. The other was one of the last cases in which he had removed the

appendages for uterine fibroid. In that case tying the vessels in the pedicles appeared to have in some way cut off the vascular supply of a fibroid near the fundus and caused it to slough. At all events, no evidence of sloughing (fever, fetid discharge, &c.) was present till after the operation. The patient died within a week, and at the post-mortem examination one of the fibroids near the fundus was found to have sloughed. Dr. Lewers called attention to the frequency with which mucoid degeneration was met with in fibroids, and he would be glad to know Mr. Doran's views as to the relation, if any, between mucoid degeneration and sloughing.—After Dr. G. F. BLACKER had joined in the discussion Dr. CUTHBERT LOCKYER drew attention to the fact that the term "suppurating fibroid" hardly conveyed the correct idea of the condition of the tumour at the time of removal, inasmuch as suppuration implied the presence of pus and of pyogenic organisms, and such were not present in the tumour. In reply to a question by Dr. Blacker as to the causation of the febrile condition of the patient Dr. Lockyer thought that it was possible for a pyrexia to result from the absorption of necrotic products in which no organisms could be found, and mentioned that this had been proved in the case of blood clot.—Mr. ALBAN DORAN, in reply, regretted that none of the Fellows of the society could offer any explanation of the abnormal relations. The tumour was certainly in the left cornu, and the displacement of the left round ligament was very unusual and seemed to indicate some malformation of the cornu. The term "sloughing" had been used for convenience in the title of this communication, though there was not the typical moist, fetid gangrene seen in Dr. Lewers's case, where the tumour was in close relation with the uterine cavity. In the present case the tumour and the cavity were far apart. The necrotic change probably came on because the shape of the tumour made its blood-supply liable to interruption. He believed that mucoid degeneration arose from similar causes assisted by feeble circulation. This seemed certainly the case in two instances of uterine fibroid in his own practice where menorrhagia was severe and the tumour caused pain, rare in fibroid disease. Mr. Doran removed the uterus without the ovaries with great benefit to the patients.

Mr. J. BLAND-SUTTON read a communication on a case of Gonorrhœal Pelvic Peritonitis.—Dr. DRUMMOND ROBINSON made some observations with regard to the case.

Dr. W. S. HANDLEY read a communication on a case of Tubal Mole with Encysted Hæmatocœle.—The case was discussed by Mr. DORAN, Dr. HERBERT SPENCER, Dr. W. S. A. GRIFFITH, Dr. LEWERS, Mr. BLAND-SUTTON, and Dr. LOCKYER.

The following specimens were shown:—

The PRESIDENT: Drawings of a case of Deciduoma Malignum.

Mr. DORAN: Fibroid of the Broad Ligament associated with an Ovarian Cyst.

Dr. LEWERS: Carcinomatous Uterus with Pyometra; the patient was well six years after the vaginal hysterectomy.

Dr. A. L. GALABIN: Papillomatous Cyst of (?) an Accessory Ovary.

Dr. T. W. EDEN: Cyclops Arrhynchus.

Dr. W. W. H. TATE: Fibro-myoma of the Uterus complicated with Double Salpingitis and Carcinoma of the Cervix removed by Vagino-Abdominal Hysterectomy.

The specimens were discussed by the PRESIDENT, Dr. GRIFFITH, Dr. LEWERS, Dr. LOCKYER, Dr. SPENCER, and Mr. J. H. TARGETT.

## OPHTHALMOLOGICAL SOCIETY.

*Mooren's Ulcer.—Keratitis in the Newly-born.—Exhibition of Cases and Specimens.*

AN ordinary meeting of this society was held on Nov. 8th, Dr. DAVID LITTLE, the President, being in the chair.

Mr. E. NETTLESHIP read a paper on Chronic Serpiginous Ulcer of the Cornea (Mooren's Ulcer). The terms "chronic serpiginous ulcer," or "Mooren's ulcer," were preferable to "ulcus rodens," which was another name for rodent epithelioma. The paper was based upon an examination of 71 cases, 12 of which were Mr. NettleSHIP's. Bowman was the first to describe a case in detail (1849), but Mooren rightly had the credit of discovering the disease as a clinically distinct species in 1867. The ordinary characters and course of the disease were described. Its usual duration was from four

to 12 months, and no cases were included that lasted less than two months, though certain cases running a less chronic course might perhaps be of the same nature. The subjects were adults from 23 to 71 years of age, rather less than a quarter were under 40 years of age, just half between 40 and 60 years, and rather more than a quarter over 60 years. A decided majority were males. In a large majority the attack in both sexes began in the winter half of the year, and degenerative changes, perhaps merely senile, lowered surface temperature, and perhaps some congenital defect of quality of the corneal tissue in certain persons were suggested as predisposing causes. The course of the disease strongly suggested infection, but no special micro-organism had as yet been found. In more than one-fourth of the cases both eyes suffered, sometimes with an interval of years, and the disease was often exactly symmetrical in the two eyes. The prognosis was always grave and was far worse when both eyes were attacked, only one in four of the double cases being arrested short of total leucoma; whilst of the single cases more than half recovered with some untouched cornea. The deeper parts of the eye remained healthy and vision was determined by the final state of the cornea and pupil. Treatment should begin with cutting away the overhanging and half-dead edge of the ulcer and applying an escharotic or strong germicide to the advancing border thus exposed; the galvano-cautery was the best, pure carbolic acid and strong tincture of iodine probably came next; transplantation of conjunctiva over the ulcer appeared useful occasionally. Though some cases were published as cured which would probably relapse, and though others went to universal leucoma in spite of all possible treatment, the results had been much better since the introduction of the cautery than before. Several old patients had done well and several young ones very badly. Allusion was made to the "marginal atrophy" of cornea recently described by Fuchs and to several other allied conditions of the cornea.—Mr. TREACHER COLLINS asked if there was any relation between the age of the patient and the rate of progress of the disease. In two cases which he had seen the ulceration of the cornea was most extensive, and yet the remaining opacity was not dense and remarkable good vision remained. In one case the patient developed a crop of vesicles on the cornea and some patches of infiltration, all of which cleared up upon his performing paracentesis and iridectomy.—Mr. J. B. LAWFORD related the case of a woman, aged 69 years, with no very definite specific history. In the right eye more than half the cornea was attacked; there was severe iritis, but not much pain, the temperature being normal. He cauterised the advancing edge and after a second application it healed. Shortly afterwards it broke out again and he then applied nitric acid without much good resulting. He then used solution of iodine daily, but it caused pain and did not do much good. Then the left eye became congested. An ulcer developed which he burnt with the cautery. The right eye had no unattacked cornea and it was vascular and cicatrised. The left was again cauterised and strong glycerine of perchloride of mercury was applied. After freely cutting away the edge and applying the galvano-cautery it healed, but again broke down and was cauterised. This was repeated and the patient still remained under treatment. In another case, that of a man, aged 46 years, healing was obtained after one application of the galvano-cautery.—Mr. W. LANG on one occasion after failure with the cautery did an iridectomy, when the ulcer healed and the case did well. Since then he had treated others in the same way with good results in all but one case.—Dr. A. BRONNER thought that there were two distinct classes of cases, one in which the ulceration was superficial and one in which it was deep.—Mr. SYDNEY STEPHENSON had published a case which occurred in a woman, aged 60 years, where the ulcer healed after two applications of the cautery. He then looked upon it as malignant, but this view he did not now hold. This disease seemed to occur about once in 17,000 cases, though more cases appeared to occur in some countries than in others. He thought the name Mooren's ulcer was a better term than serpiginous. Gifford had published a case in which the conjunctiva and sclera were involved in the ulcerative process, and last year an Italian observer isolated a bacillus which caused a disease when inoculated into the conjunctiva of rabbits.—The PRESIDENT stated that he had only seen a few cases, and he described one which occurred in a woman in which he advised an iridectomy, as it had when he first saw it resisted all kinds of treatment. The patient refused to have the

operation done and he subsequently transplanted a corneal flap with good result. The disease followed influenza. — Mr. R. E. BICKERTON asked if there was evidence of dacryocystitis in Mr. Nettleship's cases. — Mr. NETTLESHIP replied that lacrymal sac trouble was very uncommon in these cases. With regard to age and prognosis he had not worked it out, but he did not think that there was anything striking in this respect. He had never noticed vesicles on the cornea, neither had he found that the inhabitants of some countries were more liable to the disease than others. The cases cited by Mr. Lawford and the President certainly made the prognosis look bad, but he was sure that it was much better since the introduction of the cautery.

Dr. W. ERNEST THOMSON (Glasgow) read a paper on Keratitis in the Newly-born occurring after instrumental delivery and resulting in each case in an almost identical rare form of opacity. All the mothers had contracted pelves, and in the case of one with a conjugate of only two and three-quarter inches the delivery had been extremely difficult. Dr. Thomson saw two of these children very soon after birth, at which time three cornea out of the four presented opacities in the anterior corneal layers with dulling of the surface but no vascularity. There was in all some bruising of the lids and conjunctivæ. The subsequent result was peculiar, for while one cornea became progressively more infiltrated, and that uniformly, the other two quickly improved; but the opacities, instead of remaining as central nebulae, developed into white central vertical linear scars, with an adjacent area of much fainter haze. The third case had come under the care of Dr. Andrew Wilson at the fifth week. All signs of active keratitis had passed away, but an obliquely placed linear scar remained precisely similar in character to those in the other children. Dr. Wilson suggested that the cornea became buckled by the pressure of the forceps squeezing the eye against the nasal wall of the orbit. Dr. Thomson pointed out that such cases if seen late might be diagnosed as congenital corneal opacity of intra-uterine origin.

The following cases and card specimens were shown:—

Mr. A. HUGH THOMPSON: Sections of an Orbital Tumour (? Endothelioma, ? Adeno-sarcoma).

Mr. R. W. DOYNE: Tumour growing apparently from the Optic Disc.

Mr. ADAMS FROST showed some Eye Instruments used by Native Oculists in India which had been presented to the society by Major E. F. Drake-Brockman.

Mr. N. M. MACLEHOSE: Rodent Ulcer of the Upper Eyelid.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

*Exhibition of Cases and Specimens.—Motor Localisation in the Lumbo-sacral Region of the Spinal Cord.*

THE first meeting of the eighty-first session of this society was held on Nov. 6th, Dr. A. G. MILLER, the President, being in the chair.

Dr. G. H. MELVILLE DUNLOP showed a rare case of Chloroma in a boy, aged three and a half years. Lympho-sarcomata usually originated in the periosteum of the cranium and the majority grew from the orbit. When such tumours were newly removed from the body they were of a bright green colour ("green cancer"). The boy was markedly anæmic, his eyeballs were so prominent that the lids could not be closed, and the palate was encroached on by growths of a purplish colour.

Dr. NORMAN WALKER showed (1) three cases of Lupus to illustrate the effects of light treatment; and (2) a Finsen lamp. Usually five applications were sufficient to produce a cure.

Mr. H. J. STILES showed (1) a girl, aged seven years, after operation for Plexiform Angioma of the Scalp; (2) a child, aged one year and nine months, with Unilateral Congenital Dislocation of the Hip; and (3) a child after operation for Tuberculous Disease of the Frontal Bone.

Various specimens were shown by Dr. ALEXIS THOMSON, Mr. STILES, and Dr. HARVEY LITTLEJOHN.

Dr. ALEXANDER BRUCE read a paper on the Motor Localisation in the Lumbo-sacral Region of the Spinal Cord. He had recently had the opportunity of making definite observations on two cases, which had shown that the motor-cells had a definite arrangement in each segment of the cord, so that one could determine by knowing the arrangement

and grouping of the cells to which segment it belonged. Nissl had shown that where a nerve-fibre had been cut or its muscle removed the corresponding nerve-cell underwent a constant "reaction at a distance" (Marinesco). The ordinary motor nerve-cell in the anterior cornu possessed dendritic processes and its granules were arranged in a more or less "tigroid" manner. When, however, the nerve-fibre had been cut and its distal part kept from uniting the nucleus of the motor cell wandered out from the centre and projected on the surface of the cell which lost its angles and appeared somewhat rounded: the body of the cell at the same time lost its characteristic appearance and within two weeks or so the protoplasm became finely granular. Such a method of observation allowed one to determine easily what the motor cells were which belonged to a particular muscle. There were three main groups of motor cells in the lumbo-sacral region of the cord—namely, (1) an antero-lateral group; (2) a postero-lateral or main group; and (3) a post-postero-lateral group which appeared earliest in the first sacral segment. All these nerve-groups were devoted to the muscles of the lower limb. There was also a fourth group—namely, a central or mesial group of cells situated close to the inner angle. It extended from the second lumbar to the second sacral segment and was very pronounced at the third and fourth lumbar segments. The antero-lateral group appeared at the second lumbar segment as a small group and gradually grew in size until it became a large group (with indications of further subdivision). It rapidly diminished in the first and second sacral segments, below which it could not be traced. The postero-lateral group extended from the second lumbar to the lower limit of the third sacral segment. The post-postero-lateral group extended from the first to the lower limit of the third sacral segment. In one case which Dr. Bruce had examined amputation of the leg above the knee had been performed. Here the calf muscles and the extrinsic and intrinsic muscles of the foot had been removed. On examining the cord the degeneration of cells (as shown by the Nissl reaction) commenced in the postero-lateral group below the fourth lumbar segment, as also in the post-postero-lateral groups (most marked in the first sacral segment). The antero-lateral, central, and mesial groups remained intact. The maximum reaction occurred at the first sacral segment, at which level the postero-lateral group was very large and where the post-postero-lateral group began to appear. Van Gehuchten and Nelis had described a case of amputation at the ankle where the reaction in the cells was limited to the post-postero-lateral group. If that be further confirmed then the post-postero-lateral column might be regarded as the centre for the intrinsic muscles of the foot, and the postero-lateral group from the fifth lumbar to the upper part of the third sacral segment inclusive as the centre for the muscles of the leg. The centres for the muscles below the knee must therefore be those in groups of nerve-cells situated between the upper limit of the fifth lumbar segment and the third sacral segment. In cases where the foot alone had been removed the small post-postero-lateral group of cells had undergone degeneration and demonstrated that that must be the centre for the muscles of the foot. In a second case a most extensive operation for tuberculous disease of the hip-joint and ilium was performed. The whole of the lower limb, acetabulum, and ilium and spines of the ischium were removed. The psoas, iliacus, pectineus, obturator internus, gemelli, and pyramidalis muscles were alone left and the pudic nerve received injury during a subsequent operation. One expected, therefore, that the only motor-cells in the lumbo-sacral region left intact would be those corresponding to the above-named muscles. On examination it was found that the area of degeneration was much more extensive than in the preceding case and that the whole of the cell-columns (with certain exceptions) were affected in the lumbo-sacral region. Degenerated cells began to appear as high up as the second lumbar segment, some cells in the posterior part of the antero-lateral group being affected. In the lower half of this segment the number of degenerating cells increased in the antero-lateral and postero-lateral groups. In the third lumbar segment the number of healthy cells in both the lateral groups rapidly diminished from above downwards. The central and mesial groups remained healthy. In the fourth and fifth lumbar segments practically all the cells in the lateral groups were degenerated. In the first sacral segment, however, normal cells again appeared and gradually increased in numbers in the antero-lateral group, but the postero-lateral group was entirely degenerated. Very similar

conditions were present in the second and third sacral segments. The undegenerated cells in these segments must therefore correspond to the unaffected muscles which were left (obturator, psoas, &c.). The anatomical distribution of the nerves in the lumbo-sacral region indicated that the psoas-iliacus was innervated from the antero-lateral and postero-lateral groups in the second and third lumbar segments chiefly, the obturator internus, and pyriformis (and perhaps the gemelli and quadratus femoris) from the antero-lateral group in the first and second sacral segments, the pyriformis from the second sacral. It was remarkable how far down the cord the nerve-cells for the hamstrings and external rotators of the hip descended. In the mesial group of the second and third sacral segment there were a considerable proportion of degenerated cells, while in the fourth segment the proportion of diseased to healthy cells was not nearly so great. This mesial group was the centre for the levator and sphincter ani and very probably for the striped muscles of the urethra. In the upper cervical region of the cord this mesial group was very small, but at the fourth and fifth cervical segments, where the nerves for the diaphragm arose, this group became very large. Probably this mesial group of nerve-cells supplied the muscles of the trunk both at the back and anteriorly. —Dr. BYROM BRAMWELL, Dr. NOEL PATON, and Dr. D. WATERSTON spoke, and Dr. BRUCE replied.

The following gentlemen were elected office-bearers for the session 1901-1902:—President: Professor T. R. Fraser. Vice-Presidents: Dr. James Andrew, Dr. Charles Underhill, and Dr. James Ritchie. Councillors: Dr. J. W. Ballantyne, Dr. George Kerr, Dr. K. M. Douglas, Mr. H. J. Stiles, Dr. A. G. Miller, Dr. Noël Paton, Dr. W. Russell, and Dr. Logan Turner. Treasurer: Dr. Harvey Littlejohn. Secretaries: Dr. Melville Dunlop and Dr. Alexis Thomson. Editor of Transactions: Dr. William Craig.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

### SECTION OF PATHOLOGY.

#### *The Role of Protozoa in the Causation of Disease.*

A MEETING of this section was held on Nov. 1st, in the Royal College of Surgeons, Dublin, when Professor McWEENEY delivered the presidential address on the Role of the Protozoa in the Causation of Disease, with Special Reference to Malaria, Vaccinia, and Cancer. The address was illustrated with lantern and microscopical demonstrations. After some introductory remarks, in which Professor McWeeney set forth the reasons which had induced him to select the parasitic protozoa as the subject of his address, the speaker briefly explained the characters of the protozoal organism. The single cell of which it was composed must exercise the several functions which among the mesozoa were carried out by the groups of differentiated cells termed organs. It must move, feed, and multiply. The manner in which the protozoal cell discharged these functions was taken as the basis of classification. There were four great classes of protozoa—the rhizopoda, sporozoa, flagellata, and infusoria. The rhizopoda comprised the lowliest of living beings, amœbæ, formless lumps of protoplasm, moving by means of temporarily emitted pseudopodia, and differing from a human leucocyte only in their capacity for leading an independent existence. Amœbæ were normal inhabitants of the human intestine, where they seemed to have been first seen by Lambl in 1870. Lösch in 1875 ascribed dysentery to their parasitism. Since then an extensive literature had accumulated with reference to the causal relation in which amœbæ were supposed to stand to a certain form of dysentery termed "tropical" by Councilman and Lafleur in 1891. The speaker sketched the development of this doctrine, pointed out the sources of error that underlie not only some of the reputed findings of amœbæ in the faeces and in the pus of liver abscesses but also invalidate some of the reputed positive results of animal experiment, and concluded this part of the subject by saying that in view of the positive results recorded by Quincke and Roos, Kartulis, Kruse and Pasquale, and Zancanol from the injection of bacterially sterile liver-pus into the rectum of cats it was hardly possible to escape from the conclusion that the amœba coli was, by itself or in conjunction with bacteria, responsible for the causation of "tropical" dysentery. He did not know whether any case of this disease

had as yet been recorded in Ireland. He demonstrated a coloured screen picture of amœba coli. He then proceeded to describe the sporozoa, animals which in their adult stage appeared as amœbæ or else as more or less definitely-shaped protoplasmic masses, but which multiplied by division into a greater or lesser number of encapsulated germs, which from their resemblance to the reproductive bodies of the fungi were often spoken of as spores. They had recently been shown to possess a highly remarkable sexual method of reproduction. Passing over the gregarinidæ, as not found in the higher animals, he desired to lay stress on the next order, the coccidiidæ species of coccidium, which produced pseudo-adenomata in the bile-ducts of the rabbit, and plaque-like thickenings of the intestinal wall. Severely affected animals died from cachexia and anæmia. The parasite had two developmental cycles, both passed within the same host-animal. The mature animal consisted of a rounded, coarsely granular mass of protoplasm (schizont) lying within an epithelial cell of the rabbit's intestine or bile-duct. It split up into numerous sickle-shaped segments (merozoites) which became amœboid and infected neighbouring cells. At a certain period schizogony came to an end, and two varieties of mature parasite became differentiated, one larger, more evenly granular, the micro-gamete or female; the other smaller, more hyaline, the micro-gametocyte. Bi-flagellate bodies, the micro-gametes or spermatozoa, were emitted from the latter, each carrying with it a part of the nucleus. They penetrated into and fertilised the macrogamete, which increased greatly in size, assumed an oval shape and a doubly-contoured capsule, and, becoming detached from the epithelium, emerged with the faeces into the outer world as a "sporont"—the coccidium of the older writers. Soon its contents became divided into four sporoblasts, each of which assumed a tough membranous investment, and being set free by the decomposition of the outer cyst-wall was called a spore. Its destiny was to gain access to the alimentary canal of a fresh animal with the food and there to liberate the two sickle germs (sporozoites) which had been meanwhile formed in its interior. He alluded to the reduction of the chromosomes and the rest-körper or *corps de résiquat*. This interesting life-history had been revealed through the labours of L. and R. Pfeiffer, Labbé, Léger, Schaudinn, Siedlecki, and Simond. What made it the more interesting was that it ran strictly parallel to the life-history of the malarial parasites which had been recently so admirably cleared up through the work of Manson, Ross, Bignami, Grassi, and MacCallum. These parasites constituted the next order of sporozoa, the hæmosporidia. Professor McWeeney then proceeded to trace out the developmental cycle of the parasites of human malaria and to show that the phenomena were by no means isolated, but were strictly parallel to what had been shown to hold good for the coccidiidæ. The reproduction of the malarial parasite by sporulation in the circulation of the warm-blooded host was homologous with the schizogony of the coccidium in the rabbit's intestine. The sexual process of the malarial parasite differed from that of the coccidium in one feature only—the complication of a change of host, from the warm-blooded vertebrate to the cold-blooded invertebrate animal. This change was, of course, effected by the agency of the mosquito. He insisted upon this homology as bringing the malarial parasite into line with other forms of parasitic protozoa. Turning next to the third class of protozoa, the flagellata, the speaker detailed the main facts known regarding this parasitism in the lower animals. The best known of these parasites was the hepato-monas, or trypanosoma Lewisii, which was often found in the blood of the common wild rat. Through the courtesy of Professor Cunningham he had that morning examined the blood of 15 rats at the Zoological Gardens, and found the parasite in seven. He had brought one of the animals and now showed its blood, containing numerous actively motile fish-like parasites, each as long as three or four red blood discs, and provided with a long flagellum and an undulating membrane. He demonstrated a film stained by Romanowsky's method, showing the macro- and micro-nucleus stained red, and also the flagellum, an interesting factor for which he could not at the moment satisfactorily account. Although this parasite seemed harmless to the rat, a closely allied form, trypanosoma Brucei, had been shown to be concerned in the causation of surra, a disease of transport animals in India, and of the famous nagana or tsetse-fly disease in the warmer parts of Africa. He demonstrated a stained blood-film from a

guinea-pig, which he owed to the kindness of the late Professor Kanhack. As compared with those in the rat, some were blunter at the non-flagellate end. This did not hold good in all cases and he could see no other difference. In conclusion, the speaker referred to parasitic protozoa of uncertain biological position. *Piroplasma bigeminum* was a minute pear-shaped or oval speck of protoplasm, often occurring two together in the red corpuscles of the ox affected with parasitic hæmoglobinuria or Texas fever. The parasite was discovered a few years ago by Theobald Smith and Kilborne in the United States. They found that its propagation from one ox to another was effected by ticks. A unique feature of this transference was that it was carried not by the female tick that had actually sucked up the infected blood but by her progeny. Owing to the courtesy of Professor Mettam, principal of the Royal Veterinary College of Ireland, he was in a position to show specimens of the parasite found for the first time in Ireland by that gentleman in the blood of cattle suffering from red-water. Of still more uncertain position was the supposed parasite of vaccinia discovered by Guarnieri in the epithelium of the inoculated rabbit's cornea. Through the kindness of Dr. Gustave Mann of Oxford he demonstrated a preparation showing these bodies in almost every epithelial cell. The subject was one of some complexity and opinions were much divided as to the interpretation of the "bodies" in question. He preferred to reserve this part of the subject for a further communication later in the session. Lastly, the supposed protozoal etiology for carcinoma was a still more doubtful topic even than vaccinia. The tendency among recent Italian workers was to ascribe the disease to a blastomycete or yeast-form, which would, of course, be reckoned among the vegetable parasites. Sanfelice of Naples claimed to have obtained from fruit-juice an organism of this kind which had yielded positive results on inoculation. In England Plimmer had obtained from a rapidly-growing cancer a growth of an organism the biological nature of which appeared to be doubtful. The results of the inoculation-experiments seemed to the speaker to be far from convincing. The several varieties of cell-inclusions that had been so industriously worked up and identified at first with coccidia, then with blastomycetes, seemed to him to be susceptible of other explanations. He now demonstrated some of these inclusions. In this connexion it was interesting to note that ulcerated swellings exceedingly like tumours were developed on the roots of the cabbage and turnip as the result of the intracellular parasitism of *plasmodiophora brassicæ* (Wor), an amoeboid organism reckoned by some with the myxomycetes and by others with the protozoa. Cachexia and death of the host-plant were caused by this intracellular parasite, which thus formed an interesting analogy to what was sought to be established in the case of human cancer. He demonstrated sections of the affected roots showing the cells filled with the parasitic protoplasm and subsequently with the small spores, into which it divided.

The section then adjourned.

**BIRKENHEAD MEDICAL SOCIETY.**—A meeting of this society was held on Nov. 8th, Dr. J. Pinkerton, the President, being in the chair.—Dr. Nathan Raw (Liverpool) read a paper entitled, "The Diagnosis and Treatment of Tuberculosis, with Special Reference to the Open-air Method." He said that consumption was the scourge of all civilised communities. Its ravages were world-wide; in Europe alone it was estimated that 1,000,000 people died annually from it. During the past 50 years the death-rate had in England been reduced 50 per cent. and he predicted that in future years it would be still further reduced. In Italy the disease had long been held to be infectious; even as far back as 1752 disinfection of the clothing of consumptive patients and lime-washing of the rooms and houses occupied by such patients were held to be necessary, and in Spain and in the south of France 100 years ago the same opinions existed. A great advance in their knowledge of the disease was brought about by the discovery by Professor Koch of the tubercle bacillus in the sputum and lungs of phthisical patients, and they now looked upon this bacillus as a constant factor in the causation of the disease. Dr. Raw discussed the question of the hereditary transmission of the disease. He held that there was little or no evidence to prove that such transmission did occur, but he considered this question of little importance as compared with infection after birth. In his

opinion there was very little specific tendency in children of tuberculous parents to become infected, except in so far that such children were not so strong as those of healthy parents, and therefore more susceptible to disease of any kind. The commonest way in which patients became infected was by the inhalation of tubercle bacilli. He then described the various modes of invasion of the disease, and in referring to the pleuritic forms stated that he was now by any means convinced that all cases of pleurisy were tuberculous, as was sometimes stated. He next discussed the diagnosis of tuberculosis and its treatment. The latter he divided into two heads: (1) preventive and (2) specific. Under preventive treatment he urged that phthisical patients must be taught not to spit upon the ground or floors of rooms, but should carry spittoons or some such arrangement in which the sputum could be collected and then destroyed either by treatment with disinfectants or by burning. The clothing and utensils used by such patients should be disinfected, and rooms which had been used by such patients should be disinfected, painted, and repapered before use by other individuals. He considered that an insufficient air-supply to the apices of the lungs was a very important agent in inducing phthisis, and he thought that all children ought to be taught to breathe properly, so as to expand their lungs thoroughly. In the open-air treatment the main object was to make the patient live out of doors as much as possible and also to improve his nutrition. If they fattened their patients then the disease might be left to take care of itself. At Nordrach patients were often in the open air for 10 hours every day, and that in spite of fog and cold. Excessive cold was not harmful even in advanced cases, as the results of treatment at Davos showed. The question of rest or exercise for such patients was a very vexed one, some authorities insisting upon absolute rest in the open air, others recommending gradually extended exercises. Complete rest with regular breathing exercises gave in many cases excellent results. A febrile condition with a temperature of 100° F. or over was an absolute bar to exercise. A three to six months' course of sanatorium treatment would generally arrest the disease. Pure air, an equable temperature, and a maximum of sunshine were the desired conditions, and given these cases would do as well in England as abroad. Specific medication had proved useless. Drugs could only be of use by helping to render the tissues more resistant. Dr. Raw mentioned some drugs and their combinations which had in his hands proved of service in the treatment of symptoms, including creasote or guaiacol as routine treatment. He laid great stress upon the importance of attending to the feeding-up of the patient, but he was not in favour of forced feeding as practised on the continent. In conclusion he said that an organised effort on the part of the medical profession, the health authorities, and the public must be made in fighting this disease. Healthy houses must be provided and insanitary areas must be swept away. He urged voluntary notification of the disease and voluntary removal of patients, municipal sanatoriums for curable cases, and isolation hospitals for incurable ones.—Dr. A. C. E. Harris, Mr. G. S. Stansfield, Dr. F. Johnston, Mr. F. Vacher, Dr. W. R. Dalzell, Dr. W. R. Floyd, and the President took part in the discussion which followed and Dr. Raw replied.

**BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.**—A meeting of this society was held on Oct. 30th, the chair being eventually taken by the incoming President, Dr. J. G. Douglas Kerr (Bath).—A vote of thanks was accorded to Dr. Frederic Bagshawe (St. Leonards) for his services as President during the past session.—The President then gave a short address, referring to the great improvements which had been made in bathing establishments at the different British spas during the past 20 years and to the impetus which had been given by the Royal Medical and Chirurgical Society to the study of balneology and climatology within the last six or seven years, specially mentioning the first part of the report published in book form by the society and the fact that the second volume of the report would be issued shortly. There was a possibility, he said, that a tour of inspection through the British health resorts might be arranged by the society during the ensuing session.—Mr. King Houchin (London) read a paper on the Treatment of Syphilis by Inunction. He said that the treatment of syphilis as practised at Aix-la-Chapelle could be, and was, carried out at most of the British

spas and even in London. He had discovered after some five years' practical experience that satisfactory results could be obtained in London. During treatment great care of the teeth should be taken and the patient should use a mouth-wash of chlorate of potash, with or without some mild astringent, night and morning and after meals. The patient should remain for 20 minutes or half an hour in a hot bath, preferably mineral, the temperature of the bath being from 98° to 100° F. The preparation commonly used for inunction was the unguentum hydrargyri (B.P.). After the bath a portion of the body was selected for the inunction. The method he usually followed was to divide up the body into five sections so that in five days the whole of the body surface had been subjected to inunction. This should be repeated on consecutive days, if possible, until from 25 to 30 applications had been made. This constituted "a course," which should be repeated in six months' time, two or three courses usually being sufficient for all ordinary purposes, and the patient might then be considered to be cured. He advised the inunction to be carried out by a glass rubber. The treatment had the following special advantages for patients who were either quite unable to leave their homes or for whom it was undesirable to do so: (1) the system could be saturated to toleration; (2) digestion was not interfered with; (3) a much larger dose of mercury could be tolerated by the skin than by the mouth; (4) mercurial cachexia was seldom seen under this method of treatment; and (5) the patient, on the contrary, usually gained weight, colour, and nutrition.—Dr. Fortescue Fox (Strathpeffer) suggested that it might be possible to promote the absorption of mercury by connecting the rubber with the pole of a battery. There were other chronic disorders (not syphilitic) that derived benefit from mercurial inunction—for example, some forms of dyspepsia and malnutrition.—Dr. Sansom (London) said that from personal experience of cases thus treated he considered that the institution managed by Mr. Houchin in London on the lines of those at Aix-la-Chapelle and Wiesbaden had supplied a distinct want. He would include in the list of cases to be thus treated those of syphilitic disease of the cerebral arteries.—Dr. G. A. Leon (Sidmouth) said that the paper was of especial interest to the society as it indicated how treatment usually carried on abroad could be made successful at any health resort in England. He had visited Aix-la-Chapelle and preferred in some ways the methods there. He thought that the hand was the best vehicle for inunction and that treatment at a spa with the discipline there was often necessary and generally useful. In tertiary cases several courses of daily inunction were necessary in many instances, the course consisting of from 50 to 150 days. In an early case of secondary disease four courses spread over two years, with from 30 to 40 inunctions in each course, was necessary to be safe. A more astringent mouth-wash than chlorate of potash should be used, such as dilute acetate of lead and alum. In advanced tertiary cases iodide of potassium was most necessary to arrest the disease until the mercurial inunctions could have their effect. He agreed with Mr. Houchin in attaching no special importance to the sulphur waters, but a hot bath was requisite before inunction.—The President said that at Aix-la-Chapelle and at Bath a very large number of applications were found necessary in tertiary syphilis—many more than were recommended by Mr. Houchin. The temperature of the bath was never allowed to exceed 95°. Artificial rubbers had been tried but had been discarded and the hand method had shown better results. He considered that the discipline entailed by residence at a spa was a great factor in assisting the cure.

#### ROCHDALE AND DISTRICT MEDICAL SOCIETY.

A meeting of this society was held on Nov. 7th.—Mr. R. Burdett Sellers gave the presidential address on an Acute Infectious Disease. After referring to the diminished death-rate, notably from zymotic diseases and phthisis, Mr. Sellers said that there was one very common disease which showed little reduction in its death-rate—viz., pneumonia. This was an acute infectious disease caused by the diplococcus pneumoniae of Fraenkel. The pneumococcus, however, might cause other conditions, as empyema, peritonitis, ulcerative endocarditis, &c., which might be primary or secondary to an attack of pneumonia. The coccus was often present in the saliva of healthy individuals. They had in and about them the organisms of many diseases only waiting an opportunity for developing

malignant action. Such opportunity came with impaired vitality due to chill, fatigue, or other cause. Leucocytes were increased in the pyrexial stage of pneumonia and were diminished with the critical fall of temperature. The crisis was probably due to the formation of an antitoxin in the blood (Washbourn). The serum of patients convalescent from pneumonia was said to have protective power. Non-alcoholic cirrhosis of the liver might be due to an antecedent attack of pneumonia, judging from liver changes during an attack of the disease. With regard to treatment pneumonia could not be cut short by any known means. The routine saline treatment consisted of the administration of laxatives, with a liquid unstimulating diet and complete rest in an airy room at a temperature of above 60° F. with a proper degree of moisture. Death was generally due to heart failure, hence depressing treatment should not be employed. Special circumstances might call for the use of quinine in full doses, or, in cases of low type, tincture of perchloride of iron. It was unwise to reduce the "normal temperature of pneumonia" (103° or 104°) unless delirium or other condition called for interference. In hyperpyrexia the cold bath or similar remedy was the only measure of any use, large doses of quinine being auxiliary. The value of poultices was doubtful and they restrained respiratory movements. Ice applications might relieve pain. Strychnine and caffeine were most useful to combat cardiac failure. Oxygen was valuable where the respiratory surface was small. Dr. G. Balfour's chloral treatment was also described by Mr. Sellers.—A discussion followed the address in which Mr. G. W. Malin, Mr. W. Stanwell, Dr. D. Richmond, Dr. A. Wallace, Dr. A. B. McMaster, and Dr. W. Hodgson took part.—Mr. Sellers received a hearty vote of thanks for his interesting address.

BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION.—The annual general meeting of this society was held on Nov. 8th, Mr. Mayo Collier, the President, being in the chair.—Mr. Lennox Browne showed the Nernst Electric Lamp as one giving a far whiter light than any in present use.—The President showed (1) a case of Malignant Disease of the Pharyngeal Wall which was inoperable, and it was proposed to submit the patient to electrical treatment by Dr. J. Macintyre of Glasgow; (2) a case of Abscess of the Maxillary Antrum associated with Facial Paralysis which had subsided promptly after surgical treatment; and (3) a case, in the person of a surgeon, who was present and spoke on his own case, in which asthma had been relieved after the removal of nasal polypi. Mr. Chichele Nourse showed a case in which a Laryngeal Growth had Disappeared after the removal of Nasal Polypi.—Mr. Lennox Browne remarked on these last two cases and said that although they were by no means unique it was useful to record them, and he trusted that such cases would be always brought forward in view of the fact that quite recently doubts had been thrown on the importance and frequency of asthma and other diseases arising as nasal reflexes, notwithstanding that they had been accepted by observers of repute all over the world.—Mr. John Bark, while accepting these cases as reported, reminded the Fellows that not all were cured.—Dr. P. H. Abercrombie showed a case of Black Tongue from which Dr. Wyatt Wingrave had prepared microscopic slides and furnished a bacteriological report.—Mr. Lennox Browne made a short communication on the Preliminary and After-treatment of Operations on the Mouth and Fauces, insisting on (1) preliminary antiseptic washes; (2) sterile instruments; (3) complete rest of the parts and of the body generally after operation; (4) the use of mouth-washes by means of the throat-syringe instead of gargles; and (5) the non-administration of internal drugs, such as the bromides, which might cause skin eruptions liable to be mistaken for symptoms of septic infection.—Remarks were made by Dr. Haslam, Dr. Wyatt Wingrave, and the President.—Dr. J. Macintyre then delivered his presidential address on the Application of Physical Science to the Surgery of Diseases of the Throat and Nose. This was illustrated by the exhibition of many instruments and by lantern photographs. The following office-bearers were elected at this meeting: President: Dr. Macintyre (Glasgow). Vice-Presidents: Dr. Greville MacDonald, Dr. Walton Browne (Belfast), and Dr. J. D. Hillis (Dublin). Council: Mr. Mayo Collier, Dr. Culver James, Mr. Claud Woakes, Dr. Atwood Thorne, Dr. J. M. E. Sealiff (Brighton), Dr. R. H. Woods (Dublin), and Dr. W. H.

Kelson. Treasurer: Mr. Lennox Browne. Secretaries: Mr. Chichele Nourse and Dr. Abercrombie.

**CARDIFF MEDICAL SOCIETY.**—The ordinary monthly meeting of this society was held on Nov. 7th, Dr. D. R. Paterson, the President, being in the chair.—The following new members were elected: Dr. Evelyn J. Evatt and Dr. R. Cameron (Cardiff) and Dr. T. J. Jenkins (Pentre).—The meeting was devoted to a discussion on Infant Feeding.—Dr. A. P. Fiddian, who opened the discussion, considered the subject under the heads of (1) the feeder—mother or nurse; (2) the infant; and (3) the food. In regard to (1) he held that devotion to duty should take the leading place, affection adding sweetness and acceptability to the discharge of it. He would allow of no arrangements for amusement or ease that would interfere with the infant's needs. He described the qualities of a good nursing-woman and some physical defects that rendered her inefficient. He mentioned the instance of a few women who took alcohol in moderate quantities for the arrest of the lacteal secretion when weaning, and called attention to the need of a scientific inquiry into the effects of moderate amounts of stimulant on the formation of milk. 2. The great variations in children were discussed, some failing to thrive during the earlier months, child after child in the same family, while in others there was a tendency to excessive adipose tissue with a minimum of feeding. 3. This part of the subject was rendered instructive by illustrative standards showing the composition of milk lent by the Aylesbury Dairy Company and the Friern Manor Dairy Farm, Limited, the former including the milk of the goat, ass, and mare, as well as human and bovine milks. The Gaertner process and other methods of humanising milk were discussed. In regard to sterilisation, Dr. Fiddian's own observations had not supplied him with any instances of scurvy from the use of sterilised milk, but condensed milk had done so.—The President followed, and in the course of his remarks called attention to the Walker-Gordon laboratories in America and in a few English towns where the food was prepared according to the medical attendant's prescription.—A long and interesting discussion followed, in which the following gentlemen took part: Dr. Ewen Maclean, Dr. E. Walford, Dr. R. Prichard, Dr. H. G. G. Cook, Dr. Mitchell Stevens, Dr. Eldon Pratt, Mr. W. B. C. Treasure, Dr. William Sheen, Dr. A. E. Taylor, Dr. H. H. Tidswell, and Dr. G. N. W. Thomas.—Dr. Fiddian replied.

**WEST KENT MEDICO-CHIRURGICAL SOCIETY.**—The second meeting of the forty-sixth session of this society was held on Nov. 1st, Dr. Thomas C. Meggison, the President, being in the chair.—After the election of several new members Mr. G. Chisholm Williams read a paper on High Frequency Electrical Currents in the Treatment of Certain Diseases. The paper was divided into two parts, one dealing with the method of production from the electric-light mains, Wims-hurst machine, or accumulators. A complete description of the apparatus required was given and the various ways of utilising the currents by auto-conduction, auto-condensation, resonator, or bi-polar method, were described and demonstrated. The second part of the paper dealt with the following diseases: pulmonary tuberculosis, tuberculosis of joints, tuberculous laryngitis, lupus, eczema, psoriasis, rodent ulcer, malnutrition from rickets and dyspepsia, sciatica and neuralgia, and diabetes. Cases and notes of the above were shown or read.—A discussion followed in which the following took part: the President, Dr. R. E. Scholefield, Dr. C. H. Hartt, and Dr. G. Herschell.—A conversazione will be held after the meeting on Dec. 6th.

**HORSE AMBULANCES.**—At the meeting of the Manchester Infirmary Board on Oct. 28th it was stated that horse ambulances had been established by the Watch Committee for use in case of accidents or illness in the streets. They will be at one of the police stations, will be available by day or night, and may be summoned by telephone. It is intended also to take to the hospitals, without charge, any cases of illness or serious accident occurring at works. The charge for the removal of cases from private houses to the various hospitals will be at the discretion of the chief constable. It was stated, however, that it would be at the rate of 7s. 6d. up to a mile, 10s. over a mile, and there would be a special rate outside the city.

## Reviews and Notices of Books.

*Pulmonary Tuberculosis: its Prevention and Cure.* By CARLO RUATA, M.D., Professor of Materia Medica at Perugia. London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. 1901. Pp. 143. Price 3s. net.

THIS little work, written in English by Dr. Ruata, who was one of the Italian delegates to the British Congress of Tuberculosis, has for a chief feature its warm advocacy of antiseptic inhalations in the treatment of pulmonary tuberculosis. Of the many aromatic volatile substances suitable for this purpose the author prefers a combination of chloroform and creasote dissolved in alcohol, administered by means of a wire-gauze mask covering both nose and mouth. The use of such a mixture in oro-nasal inhalers has been in vogue with English physicians for nearly 20 years, but not, generally speaking, in the uninterrupted way, continued over long periods, which Dr. Ruata considers as essential to success. He is, however, careful to point out that it is to be regarded only as a useful adjunct to, and in no sense as a substitute for, the open-air treatment, which the patients whose cases he describes were at the same time made to adopt as far as possible. The benefit derived was in all of these instances very great and in many a complete cure was effected.

In regard to the sanatorium treatment, it is interesting to note that Dr. Ruata recognises the claim to priority of the English physician, Dr. George Bodington of Sutton Coldfield in Warwickshire. He it was who first established the value of the open-air treatment and clearly enunciated rational rules for the management of consumption. His teachings were set forth in a pamphlet published in 1840 and were met with such a storm of disapproval and abuse that its author, who was in consequence looked upon as little short of a lunatic, was obliged to abandon his method of treatment and ended by converting his hospital for consumption into a lunatic asylum. Dr. Ruata has little faith in the various serums hitherto tried as curative agents, and none in the swallowing of drugs, which only relieve symptoms and cannot stop the disease. He is a believer in the transmission of tuberculosis by heredity, as well as in Koch's statement that the disease cannot be contracted by man from drinking the milk or eating the meat of tuberculous cattle; and he gives in an appendix in support of these views some very striking statistics, which, however, involve such complicated considerations that the conclusions which he draws from them are not likely generally to be accepted as proven.

We trust that Dr. Ruata, who, by the way, has lately been defending us manfully in regard to the Transvaal war against the Italian pro-Boers, will find many readers for his sensible and practical little book in this country.

*Studien über den Echinococcus Alveolaris sive Multilocularis.* (Studies upon the Echinococcus Alveolaris or Multilocularis.) By N. MELNIKOW-RASWEDENKOW. Jena: Gustav Fischer. 1901. 8vo. Pp. 296. With six plates and 94 figures. Price 16 marks.

THIS elaborate research into the subject of echinococcus multilocularis—or, as the author prefers to call it, echinococcus alveolaris—is based upon a personal investigation of 101 specimens collected from Russia, Germany, Switzerland, and Austria. Dr. Melnikow-Raswedenkow first gives a full account of the specimens, in which he also includes clinical particulars whenever possible. A detailed microscopical examination is also often appended. In regard to the parasitology the author holds that the parasite causing the multiloculated disease is distinct from that causing the uniloculated. The former is not brought about by the behaviour of the tissues in relation

to the parasite but is due to the parasite itself. Separate chapters are next devoted to the general and special pathology of the disease. The primary disease is most often found in the liver. The secondary deposits may be found in various organs and are due to the embryos being carried to them either by the blood or the lymph stream. When the embryo arrives from the alimentary canal it produces a many-chambered chitinous coil in which both ovoid embryos and scolices are produced. In the uniloculated variety scolices only are found. The embryos may penetrate into the tissues by amoeboid movement. Some of these embryos may then develop into chitinous cysts in which new embryos are eventually found or they may be converted into sterile cysts. Not infrequently the embryos are attacked in the animal tissues by phagocytes and are destroyed. The toxins manufactured by the parasite stimulate the tissues to greater growth and granulation tissue may form. Dr. Melnikow-Raswedenkow has also investigated echinococcus alveolaris in animals and he found the changes produced in the tissues to be the same as those in man. The intermediate host plays a relatively limited rôle in the case of the echinococcus alveolaris owing to the diminished resistance of the scolices which arriving in the alimentary canal are no longer able to develop. In discussing the geographical distribution, the author says that the disease occurs more frequently in Russia than elsewhere. After reviewing the literature of the subject he finally discusses the symptoms, etiology, and treatment, and appends a useful scheme to be used in the anatomical and experimental investigation of multiloculated hydatid disease. The disease is distinctly dangerous to life; its treatment is mainly surgical. Those interested in hydatid disease will find Dr. Melnikow-Raswedenkow's monograph in every sense an excellent one.

*Practical Text-book of Plant Physiology.* By DANIEL TREMBLY MACDOUGAL, Ph.D., Director of the Laboratories of the New York Botanical Garden. London: Longmans, Green, and Co. 1901. Pp. xvi., 325. Price 7s. 6d.

THE teaching of the physiology of plants has been somewhat neglected in this country; indeed, even in places of more advanced education this all-important branch of botany has not found, in some instances, a place in the curriculum until comparatively recently. Now, however, the botanists of examining bodies insist upon its importance, so that it is becoming more widely taught as time goes on. This being so, the appearance of the work before us is most opportune, for teachers are in want of a book which covers more than the mere elementary facts, but not so advanced as Pfeffer's Physiology of Plants, for example. For their needs Dr. Macdougall's work will be found to be an excellent book; and also for their students who already have become acquainted with the more important facts of the structure, &c., of plants, besides possessing a knowledge of chemistry and physics without which many of the phenomena of plant-life will be but very imperfectly understood.

As to the aim and scope of the work, we cannot do better than quote what is said by the author in his preface. "The arrangement of the subject ..... is an effort to place before the student a method by which a working knowledge of the physiological complex of the plant may be acquired. The disposition of the subject matter entailed by this treatment consists, briefly stated, in the study of the particular functions and properties of the organism, in connection with the agencies and forces which influence or initiate them, and a consideration of the general processes of plant-life." The work, as is indicated by the title, is a practical one, but, as the author states, "a discussion of the principles of the subject is interwoven with the directions for practical demonstration in order to afford means of interpretation of the experimental results secured."

The volume contains much which may prove of interest to medical men—for example, the action of poisons and anæsthetics on the streaming movements exhibited by the protoplasm in the cells of the leaf of *Elodea*, and the hairs on the stamens of *Tradescantia*, for instance. Thus if such a structure is subjected to the action of the vapour of either ether or chloroform the movements stop entirely after a short time; the rotation is resumed, however, on passing over air provided, of course, the anæsthetic has not been allowed to act for too long a time. Again, carbonic acid gas acts in much the same manner as ether, all movements in a cell being stopped when the gas is passed over. The time taken to stop the motion of the protoplasm naturally varies in different plants; and further, as a human being may take, by gradually increasing the doses of a poison, what normally would be a fatal quantity, so also it is possible to educate, as it were, the protoplasm of a plant, for if a staminal hair of *Tradescantia* is placed in an atmosphere containing carbon dioxide which is insufficient in quantity to stop the protoplasmic movements and after a time is replaced by an atmosphere containing a higher percentage of the carbonic anhydride, it is found that if the process is continued it is possible to have the movements going on in the pure gas.

The work is illustrated by 159 figures; the paper, print, and "get up" are extremely good, and the work will not fail to prove of great value.

*Verhandlungen der Siebzehnten Versammlung der Gesellschaft für Kinderheilkunde. (Transactions of the Seventeenth Meeting of the Society for Children's Diseases.)* Edited by Dr. EMIL PFEIFFER. Wiesbaden: J. F. Bergmann. 1901. 8vo, pp. 260. Price 8s.

SEVERAL subjects of considerable practical interest are included in these Transactions. Under Nervous Diseases Dr. Falkenstein (Königsberg) contributes a valuable paper on Amaurotic Idiocy, in which he details and analyses a case and reviews the literature of this rare disease. Dr. Siegert (Strassburg) gives an account of the Pathology and Treatment of Idiocy due to Infantile Myxœdema. When considering the diagnosis he speaks of the alteration in the bones of the skeleton and of the value of radiography. Thyroid treatment produces a great improvement in many cases and a cure in a few. Professor Heubner (Berlin) details a very interesting case of Multiple Gliomata of the Spinal Cord in a Child, aged six years, complicated with Meningitis and Hydrocephalus. Dr. Fischbein (Dortmund) in a paper on Laryngismus Stridulus attaches an unusual importance to the dietetic treatment.

Among diseases of the organs of digestion a valuable paper is contributed by Dr. Ungar (Bonn) on Chronic Peritonitis and Tuberculous Peritonitis. The author almost doubts the occurrence of a chronic peritonitis apart from tuberculosis. He is not as enthusiastic upon the value of the treatment of tuberculous peritonitis by abdominal section as are some writers, but he recommends it in the severer cases. There are various papers on the artificial feeding of infants by several authors—viz., Dr. Biedert, Dr. Adolph Schmidt, Dr. Bachhaus, and Dr. Oppenheimer, whereas Dr. Conrads discusses the reasons why mothers are not able to nurse their children. Dr. Biedert's article upon the Establishment of Institutions for the Feeding of Infants and Children is certainly worthy of attention. He gives approximately what would be the cost of such an institution and its maintenance. In the discussion on this subject some difference of opinion was expressed. Professor Heubner also contributes a somewhat technical paper on Infantile Atrophy, and Dr. Camerer, jun. (Stuttgart), continues the account of an investigation into the chemical composition of the infant's body based on a case in which the analysis was performed by Dr. Söldner. Dr. v. Ranke (Munich) advocates the excision of the diseased

tissues in Noma and relates three cases successfully treated in this way. Dr. Rey (Aachen) speaks of Cystitis as a Cause of Retention of Urine in Children under Three Years of Age. He looks upon it as a contra-indication to the operation for phimosis in these cases.

Dr. Hochsinger (Vienna) gives an elaborate and interesting account of Phalangitis due to Congenital Syphilis. Fifty-five of his cases occurred during the first year of life and nine at a later period. He says that the affection is one of the most curable of those occurring in early hereditary syphilis. Besides the paper on Tuberculous Peritonitis referred to above there are two other contributions to the subject of tuberculosis—namely, on its Relation to Scrofula and its Prophylaxis. Professor Ponfick (Breslau), in a very interesting paper, concludes that Scrofula is a comprehensive term, including several well-defined processes too long grouped together. He recognises three such groups in which the inflammatory affections are due to (1) pyogenic microbes, (2) the tubercle bacillus, and (3) a combined infection of these micro-organisms. Dr. Feer (Bâle) enumerates the mostly well-known measures for the Prevention of Tuberculosis in Children.

*Morbus Hungaricus. (The Hungarian Disease.)* By Dr. TIBERIUS VON GYÖRY. Jena: Gustav Fischer. 1901. 8vo, pp. 190. Price 5 marks.

THIS elaborate work by Dr. von Györy is largely of anti-quarian interest. He has collected together the writings upon this disease down to more recent times, and he closely analyses the views advanced in them. The subject matter is chiefly discussed under the headings of (1) the real nature of the morbus Hungaricus; (2) its confusion with other diseases; (3) the locality and period of its epidemics; (4) the prophylaxis; and (5) the treatment. From the modern point of view the chapter in which Dr. von Györy ably discusses what was the real nature of this disease is of the greatest interest. He concludes that the morbus Hungaricus was none other than typhus fever. He discusses and finally sets aside the objections which might be raised against this view, such, for instance, as the occasional absence of the rash and the presence of diarrhoea. The medical bibliographer will undoubtedly be greatly indebted to Dr. von Györy for his admirable research into the morbus Hungaricus, but the work hardly belongs to the category of books which can be of real practical value to the busy modern student of medicine.

#### LIBRARY TABLE.

*Hong-Kong. Report of the Medical Officer of Health on the Epidemic of Bubonic Fever (Plague) during the Half-year ending June 30th, 1901.* Hong-Kong: Noronha and Co. 1901. Pp. 35.—Dr. Francis W. Clark, medical officer of health of Hong-Kong, states that the total number of cases of plague reported during the half-year was 1488, of which 26 were among Europeans and 1415 among Chinese (including 308 dead bodies found lying in the streets or floating in the harbour), the remaining 47 being among other Asiatics. A large number of Chinese, however, left the colony as soon as they felt at all unwell, some of whom showed unmistakable signs of the disease on arrival in Canton and its neighbourhood. The total number of deaths recorded during the half-year was 1417, of which nine occurred among Europeans, 1376 among Chinese, and the remaining 32 were those of other Asiatics. The death-rate among the Europeans was therefore 34.6 per cent., while among the Chinese it was 97.2 per cent., and among the other Asiatics 68.1 per cent. The disease increased rapidly from the end of March to the middle of May concurrently with the increase in the atmospheric mean temperature, but as soon as the mean temperature exceeded 80° F. the

disease suddenly decreased. The number of rats collected and paid for was 48,000.

*New South Wales. Twelfth Report of the Metropolitan Board of Water-supply and Sewerage.* Sydney: W. A. Gullick. 1901. Pp. 89. Price 5s.—This report on the water-supply and sewerage of Sydney relates to the period extending from July 1st, 1899, to June 30th, 1900, and in addition to the 89 pages of letterpress contains a map, photographic views, and folding plates of graphic diagrams. The average daily consumption of water per head of estimated population supplied was 41.62 gallons, as against 41.72 gallons during the year 1898-99. The average daily supply was 19,885,953 gallons, and the estimated population supplied was 478,000. The Nepean, Cordeaux, and Cataract rivers are the sources from which the Sydney Waterworks are supplied. The combined catchment areas of the three rivers enjoy a copious and regular rainfall and extend over an area of 354 square miles. The water is brought to Sydney by courses having a total length of about 63 miles. A report on the health of Sydney by Mr. T. M. Kendall, medical adviser to the board, shows that during 1899 there were 795 cases of typhoid fever reported, with 87 deaths. The sewerage system is being remodelled so that no sewage shall be discharged into Sydney Harbour, but that all shall be conducted to two outfalls, one leading into the open sea and the other on to a sewage farm.

*Zur Lehre von der Blutzirkulation in der Schädelhöhle des Menschen namentlich unter dem Einfluss von Medikamenten. (Intracranial Circulation in the Human Subject, with especial reference to the Influence of Medicines.)* By Dr. HANS BERGER. Jena: Gustav Fischer. 1901. Pp. 78. Price 5 marks.—After a general survey of the history of the subject and a description of the methods of investigation hitherto adopted, Dr. Berger proceeds to an account of his own observations made on a patient who had been trephined at the posterior upper angle of the left parietal bone in consequence of severe symptoms of intracranial pressure. The aperture in the bone measured about two inches by three inches and was covered with a gutta-percha cap which carried a recording apparatus. Dr. Berger discusses three forms of cerebral movements: (1) that due to the arterial pulse; (2) that due to the respiration; and (3) the so-called vasomotor movements or undulations. The medicinal substances employed were amyl nitrite, camphor, digitoxin, caffeine, cocaine, ergotin, morphia, and hyoscin. A number of tracings are given showing the effects produced.

*Report of the Edinburgh and East of Scotland South African Hospital.* Edited by DAVID WALLACE, C.M.G., F.R.C.S. Edin., and FRANCIS D. BOYD, M.D., F.R.C.P. Edin. Edinburgh: Oliver and Boyd. 1901. Pp. 193. Price 5s. 6d.—The reviewer is apt to echo the Wise Man and to exclaim, "Of the making of many books there is no end," when he considers the number of books which have appeared dealing with the medical aspects of the South African war. But, as the preface to the present volume points out, there is a reason for publishing the records of the civil hospitals at the war. These organisations formed a special feature of the war and by a record of their work, their difficulties, and the way in which those difficulties were met guidance for the future may be had. The hospital was stationed at Norval's Pont and began work at the beginning of May, 1900, although regular work as a hospital with beds was not commenced until May 29th when 96 patients were admitted. The hospital then consisted of 100 beds, but by July it had been increased to 150. The wards consisted of four huts containing respectively two wards. Water was obtained from a spring two miles away at first, but later a tube well was bored which gave a good supply. The drinking water was all filtered through Pasteur-Chamberland filters. The volume contains reports upon both the medical and the surgical cases. The latter, as might be expected, were nearly all cases of

bullet or shell wounds. The reports of these cases in no way differ from those of cases treated at other hospitals in the war. All the shell wounds but one were septic, while the bullet wounds were as a rule aseptic. The x rays were found to be very useful in the locating of bullets and in no instance was a soft-nosed bullet found. The report upon the medical cases is nearly entirely a very interesting essay upon enteric fever. It is written by Dr. Francis Boyd, the surgical report having been supplied by Mr. David Wallace and Dr. George L. Chiene. The report upon enteric fever merits careful study, and with regard to inoculation Dr. Boyd is, as is only natural, cautious. He says: "The outlook for inoculation is hopeful. .... While we cannot consider an inoculated person immune, it is to be hoped that we can consider that he has got an increased power of resistance." Apart from enteric fever only three cases of pneumonia were observed, one of which, in a native, was complicated with dry gangrene of the feet which were amputated. The whole report is well worth reading and the editors are to be congratulated upon the amount of interesting matter which they have supplied.

## JOURNALS AND MAGAZINES.

*Midland Medical Journal*.—Birmingham now possesses two monthly medical periodicals. The *Birmingham Medical Review* has reached the mature age of Vol. L., whilst the first number of the *Midland Medical Journal*, the official organ of the Birmingham and District General Practitioners' Union, bears date November, 1901. The newcomer consists of 20 pages in double columns and makes a very promising appearance. It opens with a "Fore-word" by Sir James Sawyer, followed by three original articles—namely, on Pulse Taking, by Dr. Arthur Foxwell; on Cerebro-Spinal Meningitis, by Mr. E. E. Hamilton Williams; and on Right Hemianæsthesia, by Dr. T. Sydney Short. A leading article, a lengthy report of Mr. Victor Horsley's address delivered before the Practitioners' Union on Oct. 24th, correspondence, and miscellaneous literary matter complete the number. There is an editorial committee consisting of eight members, the editor being Mr. James Neal, L.R.C.P. Lond., M.R.C.S. Eng. The annual subscription is 3s. 6d., and all communications (orders included) should be addressed to the Editor, 610, Coventry-road, Birmingham.

*Scottish Medical and Surgical Journal*.—The opening article of the November number is a clinical lecture by Dr. D. Berry Hart (Edinburgh) on Four Cases of Fibromyoma Uteri: the operations performed were respectively curettage, removal of fibroid polypus, double oöphorectomy, and abdominal hysterectomy. Dr. Noel D. Bardwell of the Sanatorium, Banchory, Aberdeenshire, contributes a short paper upon Dietetics in Pulmonary Tuberculosis. He considers that in some cases too much food is given, and describes an experimental investigation in which he took part. The patients were in Brompton Hospital and had three meals daily made up of—meat, seven ounces; bacon, two ounces; one egg; milk, three pints; butter, three ounces; bread, seven ounces; sugar, one ounce; pudding, five ounces; and vegetables, six ounces. It was found that the patients thrived better on this diet than on a more liberal one, containing six or seven pints of milk and 12 ounces or more of meat.

*Grèce Médicale*.—Both ancient and modern medicine supply subjects for the September number. The archaeological articles are the following: Medicine in the Time of Esculapius, by Dr. P. Kavadias of Athens; the Tomb of Esculapius, by Dr. J. Svoronos of Athens; the Therapeutics of the Homeric Age, by Dr. Sp. Manghinas of Athens; and Prescriptions contained in the Manuscripts preserved on Mount Athos, by Dr. Sp. Lambros of Athens. Dr. Foustanos of Syra,

editor of *La Grèce Médicale*, also edits *Iatpich Hproodos*, a much larger journal published almost entirely in Greek.

The *Cornhill Magazine* for November is quite up to its usual form and that is saying a great deal. The Rev. H. G. D. Latham describes the difficulties of managing a club for the class which ultimately grows into the Hooligan or possibly has already done so, but it is only by such means that the budding plant will be checked. Mr. C. W. James writes a delightful article upon "Music in Fiction." He quotes from "Henrietta Temple" Lady Bellairs's charming remark about Pasta: "She shall sing at all my parties. .... I will try to ask her to dinner once at least. I do not like singers and tumblers at dinner." We all remember Mr. Osborne, "Lords indeed!—why at one of her swarveys I saw one of 'em speak to a dam fiddler, a fellar I despise." Lady Bellairs's language is more refined, but the beautiful high-bred sentiments are the same. We should like to remind Mr. James of another musical incident and that is in Miss Braddon's "Hostages to Fortune," where the wicked but accomplished stockbroker plays Beethoven's symphonies upon a harmonium, the C minor and the Eroica! And this on a harmonium of a date just before the Franco-German war. "The Londoner's Log Book" pursues its sparkling tenor and the whole number is a good one, the article on Newman being of special interest. Light literature which really is literary is a desideratum for hard-worked professional men and the reading of magazines like the one before us will lighten the busy practitioner's toil.

## Analytical Records

FROM

## THE LANCET LABORATORY.

TABLOIDS: (1) QUININE AND CAMPHOR; AND (2) QUININE, BELLADONNA, AND CAMPHOR.

(BURROUGHS, WELLCOME, AND CO., SNOW-HILL-BUILDINGS, LONDON, E.C.)

THE formula of the former tabloid is as follows: quinine bisulphate one grain and camphor one-fifth of a grain; and of the latter as follows: quinine sulphate quarter of a grain, extract of belladonna one-eighth of a grain, and camphor a quarter of a grain. They are suggested as of value in the treatment of the early stages of catarrh.

## AQUAFORM.

(ARTHUR AND CO., 69, BERNERS-STREET, LONDON, W.)

Aquaform is a pink, slightly fluorescent fluid with a pungent smell not unlike formaldehyde. It contains di-oxy-methylene hydrate. It is stated to be a useful application for perspiring hands, giving relief to this annoying affection. We have given the preparation a trial with very encouraging results.

(1) CROWN BEER; AND (2) CROWN PILSENER.

(THE UNITED BREWERIES, LIMITED, COPENHAGEN; LONDON OFFICES, 46, QUEEN VICTORIA-STREET, LONDON, E.C.)

The special feature of these beers is the remarkably low alcoholic strength while the amount of malt nutritives is high. The analysis of Crown beer thus gave the following results: malt extractives, 8.77 per cent.; mineral matter, 0.13 per cent.; and alcohol, by weight 1.25 per cent., by volume 1.57 per cent., equal to proof spirit 2.75 per cent. The beer possesses a strong malty flavour and is only slightly effervescent. In spite of the small amount of alcohol which it contains we could find no added preservatives. The alcoholic strength only slightly exceeds that of many so-called temperance drinks, as, for example, ginger-beer. The Pilsener beer gave the following results on analysis:

malt extractives, 6.49 per cent.; mineral matter, 0.10 per cent.; and alcohol, by weight 1.75 per cent., by volume 2.20 per cent., equal to proof spirit 3.85 per cent. This is a light beer with delicate bitter flavour, and free from excess of carbonic acid gas. It was free from the usual beer preservatives. Both beers are satisfactory in composition, pure, and wholesome, containing a minimum of alcohol and a maximum of the nourishing extractives of malt.

(1) ANTISEPTIC PLASMA; AND (2) GLYCERO-PHOSPHATES.

(THE ANGLO-AMERICAN AND CONTINENTAL PHARMACEUTICAL COMPANY, LONDON, PARIS, AND NEW YORK. LONDON OFFICE: 39A, TAMWORTH-ROAD, CROYDON.)

This antiseptic plasma is a brownish, sticky substance containing well-known antiseptics. An important feature in regard to its composition is the fact that it is made up with absorbent infusorial earth (kieselguhr and kaolin) instead of the primitive clay. The plasma dressing possesses an odour of oil of wintergreen, and we found indications of boric acid. The powerful antiseptics salol and thymol are also present. The dressing presents very desirable properties, non-irritating, absorbent, and hygroscopic. The syrup of the acid glycerophosphates (Huxley) is a clear brown fluid without deposit and keeps well. The value of such a compound acid syrup is now well recognised. The preparation is contained in a ruby glass bottle, so that light may have no deteriorating effect upon it. The preparation is agreeable to take and contains the various salts of glycerophosphic acid in approved ratio and amounts.

VARIOUS COCOAS.

(ADOLPHE SANDERS, 29, FENCHURCH-STREET, LONDON, E.C.)

Several grades of cocoas have been submitted to us from the above agency which are said to represent the best qualities of manufactured Dutch cocoas. Each and all have been so prepared as to render the cocoa more "soluble" and more easily digestible. Thus the indigestible fat has been reduced to a minimum and the cocoa ground to a finely comminuted powder which gives no sediment in the cup. Two specimens we examined were from the well-known firm of Bensch and Co., both proving of excellent quality, yielding a hot-water infusion of excellent flavour. The one marked "Supra" was a shade superior to that marked "Amstel." These samples are supplied by the above agent in wholesale quantities—that is, in barrels of two hundredweight each. The third sample we examined was manufactured by Messrs. Betke and Co., also a Dutch firm. This cocoa is supplied by the above agent in tins. It is of excellent character, with a pleasing aroma characteristic of high quality. The cocoas all gave evidence of treatment with a small quantity of alkaline salt—a recourse which is not objectionable, for it adds nothing injurious while it renders the cocoa more easily suspended in hot water, or "soluble" as it is wrongly called, and more digestible. Microscopical and chemical examination were alike satisfactory.

## New Inventions.

### IMPROVED DRESSING WAGON.

MESSRS. ARNOLD AND SONS have just completed a very serviceable and useful dressing wagon for the surgical out-patient department of the Dumfries and Galloway Royal Infirmary. This dressing wagon is specially designed for use in a surgical out-patient room, but is equally well adapted for use in a ward or private surgery; indeed, for the latter it is especially well adapted. It consists of an upper air-tight case for antiseptic dressings. The front of this case folds down and, being supported by chains on either side, forms when open a convenient tray for cutting dressings

upon. The floor of the case is occupied by three drawers intended for carbolic macintoshes, coats, and towels. There are four large compartments for various antiseptic absorbent wools, and two smaller compartments for lint, gutta-percha tissue, &c. There are also five drawers, four being intended for bandages of various sizes. The fifth is divided into compartments for cylindrical rolls of gauze. Each compartment is made air-tight by a lid which has a narrow slit over the centre of each compartment through



which the gauze can be drawn and cut off to the required length. The lid is so arranged that it forms a tray upon which the cut ends of the gauze lie and they do not therefore form a hindrance to the easy running of the drawer. There is also a covered compartment in this drawer for catgut, horsehair, needles, &c. The whole is surmounted by a glass top upon which lotion-bottles, &c., stand, and below there are two glass shelves for lotion basins, instrument trays, &c.

Dumfries.

GEORGE R. LIVINGSTON, M.B. Edin.

### MARTINDALE'S (1) UREA APPARATUS; AND (2) BACTERIOLOGICAL FORCEPS.

FROM time to time a great many forms of apparatus have been devised for the ready estimate of urea in urine all depending upon the fact that hypobromite of soda breaks up urea into nitrogen and carbonic acid. The latter gas is absorbed by the excess of soda and the former is collected and its volume noted. The method is only approximately accurate, but it is sufficiently so for clinical purposes. Mr. Martindale (10, New Cavendish-street, W.) relies upon the measurement of water displaced by the nitrogen evolved. For this purpose he employs a generating bottle in which a measured quantity of urine (2 cubic centimetres) is discharged into 10 cubic centimetres of hypobromite by means of a pipette fitting into a tight rubber cork. The cork is fitted with an outlet (glass) tube connected with a bottle filled with water and placed at right angles with, and a few inches above, the generating bottle. The gas evolved in the generator displaces an equal volume of water which descends through a glass tube fitted into a cork into a measure glass. The principle, though simple enough, introduces more pieces of apparatus than in methods in which the nitrogen evolved is directly measured, as in the Doremus tube, and we are not sure that any greater accuracy is thereby gained. All bacteriologists working at the bench will appreciate Mr. Martindale's bacteriological forceps, which are designed to prevent stain or other reagent from drying and running off the cover-slip by capillary action. One limb of the forceps has attached to it a square (or round as the case may be) disc of metal to receive the cover-slip which is kept in position by the pressure of the other limb shaped like a bent end of forceps. These forceps also obviate the need to continually dry the limbs of the instrument during the process of staining or washing.

# THE LANCET.

LONDON: SATURDAY, NOVEMBER 16, 1901.

## The Annual Meeting of the Royal College of Surgeons of England.

ON Thursday, Nov. 21st, the Council of the Royal College of Surgeons of England will render to the assembled Fellows and Members an account of their stewardship for the past academical year. All the work that the Council has done has been done well, and we may cordially express our thorough approval of their management as recorded in their report. It is not, however, with what they have done that we are now concerned, it is rather with what they have left undone. They have made no attempt to give representation on the Council to the Members of the College. Ever since these annual meetings of Fellows and Members were established some 17 years ago resolutions have been carried time after time to the effect that it is desirable to extend the franchise to the Members, yet the Council has done nothing. On one occasion, it is true, they took the opinion of the Fellows on the subject; yet, since only one half of the Fellows replied to the circular from the Council, the adverse opinion then expressed cannot be seriously taken as representative of the real wish of the holders of the Fellowship. Moreover, five years have elapsed since that vote was taken; surely, then, it is fully time to endeavour to ascertain once more what the Fellows think on this most important subject. For important it, indeed, is. The rights of nearly 20,000 Members are absolutely ignored: in no way are they represented on the Council. No references to the Charter, no appeal to the desirability of representation on the Council being confined to the more highly-educated Fellow, can be of any avail in this discussion. It is of the Charter itself that we complain, for it excludes from the government of the College those who form nine-tenths of the body corporate. The Members from their very position as Members must form part of the College, and therefore should be directly represented on the Council. They are not merely Licentiates, they are Members of the Royal College of Surgeons of England. Nearly 60 years have passed since the injustice inflicted by the Charter of 1843 first arose, and ever since that year the Members have striven, sometimes in one way and sometimes in another, to obtain redress for the ills of which they complain, but hitherto in vain. The annual meeting is the only occasion when they can publicly bring forward their claims and these just claims cannot be for ever ignored. A motion urging the importance of this extension of the franchise forms the first agenda at the approaching meeting. It invites the Council to suggest any way in which the Members of the College may be represented on the Council. This motion is to be brought forward by Dr. THOMAS MORTON, and all who have heard him speak at previous annual meetings of the

College know that all he says will be said justly and moderately. But some other speakers at this meeting are prone to forget that argument is the most likely means of convincing the Council. We would therefore urge on the Members the importance of moderation in the manner in which they speak at the annual meeting. The time has gone by for violent declamation and perfervid oratory: it cannot advance the cause of Members and it may tend to retard it. Many of the Fellows are keenly in favour of the just claims of the Members and would do much to support them. The Council itself is also changing. As the years go by the *personnel* of the Council alters; the older, more conservative members of that body retire therefrom and are replaced by younger men, more alive to the needs of the times; indeed, we have reason to know that a large proportion of the Council itself is willing, if not anxious, to support any reasonable scheme of representation of the Members. The present time is exceedingly suitable for bringing forward the matter, for we are on the eve of an election of Direct Representatives on the General Medical Council. Nearly everyone agrees that the present number of Direct Representatives is too small. Were, however, the representative of the Royal College of Surgeons of England on that Council elected by the Members he would represent many thousand medical men, so that, in fact, he would be equivalent to a fourth Direct Representative. Mr. BRINDLEY JAMES is bringing forward a motion suggesting that the Representative of the College on the General Medical Council should be chosen by the Fellows and Members of the College of over 10 years' standing. We must confess that we fail to see the object of thus limiting the Members who might vote on this matter, but perhaps the mover of this motion considers that it is more likely to be acceptable to the Council if the voting power is confined to the senior Members.

We have so often on previous occasions supported the claims of the Members that it would be superfluous to recapitulate all that may be said in their favour. We may, however, mention that until the Council of the College has on it those who are the representatives of the general practitioners the Council will fail to appreciate the importance of many questions which have a vital interest for those in general practice. It is impossible, or well-nigh impossible, for a surgeon who has always practised as a consultant to appreciate the daily difficulties and the daily trials of the general practitioner. Nowadays, with the intense competition which exists both from medical aid associations and from prescribing druggists, the struggle for existence is very keen, and much assistance might be vouchsafed to medical men by the timely succour of the Council of the College. The voice of so august a body is heard respectfully even by those in high authority, and were the Council earnestly to take in hand the subject of medical reform we might hope to see progress in medical legislation such as has never been seen before.

## Scarlet Fever and Milk.

THE London County Council have just issued a report by their medical officer which presents several points of considerable interest upon which we propose to comment. The report

deals with an outbreak of scarlet fever in London during May of the present year, which occurred for the most part in Shoreditch and Bethnal Green, other districts—e.g., Finsbury, St. Pancras, and Islington—being in a less degree involved. An increase in the number of cases of scarlet fever notified was first observed in Shoreditch by Dr. L. T. F. BRYETT who, on May 1st, informed Mr. SHIRLEY MURPHY of the fact, and also that he had found that the persons affected had derived their milk-supply from two local vendors, one in Shoreditch and the other in Bethnal Green, the adjoining district. He had also ascertained from Dr. G. P. BATE that there was a simultaneous increase in the number of cases of scarlet fever in Bethnal Green which had been supplied with milk from the vendor in that district, and that while the Shoreditch vendor had derived his supplies from two middlemen the Bethnal Green vendor had received his supply from one of the two. Obviously the supplies of the middleman who had sent milk to both these vendors was under suspicion. At this point the administration of the London County Council took up the inquiry while the medical officers of health of the districts involved continued to trace the source of the milk-supply of every person attacked with scarlet fever and placed this information at the disposal of the Council's medical officer.

The middleman whose milk thus came under suspicion furnished a list of over 40 farms from which he received his milk. Dr. W. H. HAMER prosecuted inquiries among the local vendors who it was ascertained had supplied milk to the infected persons, and every effort was made to learn from the middleman's van-men from which farms they had received their milk. Further letters were sent to the medical officers of health of the areas in which the farms were situated from which milk came to the middleman, and on May 3rd the evidence had so far accumulated that two farms in Staffordshire had come especially under suspicion. Dr. HAMER, therefore, on May 4th proceeded to Staffordshire and while there Mr. SHIRLEY MURPHY was able to telegraph to him that he had received information of the occurrence of illness resembling scarlet fever in the family of one of these farmers, a suspicion which was later confirmed. Mr. SHIRLEY MURPHY had moreover, on the morning of May 4th, informed the middleman that the supply of milk from this farm should be stopped. Thus in 72 hours a complex problem had been practically solved by methods much resembling those of Mr. SHERLOCK HOLMES, and all that remained was to study the results of the stoppage of milk from the infected source. The report before us gives full information of the summary arrest of the development of scarlet fever in the districts involved and of the evidence which showed that a correct conclusion had been arrived at as to the original source of the mischief. The report also contains matter of much practical interest in connexion with the distribution of an infected milk-supply in London. The most important point which is brought out is that the middleman had no records which would enable him to give information as to how the milk from his several farms had been distributed among the local vendors. Hence the memory of his van-men had to be relied upon and this does not appear to have been invariably trustworthy. The consumers, of course, had no knowledge as to the sources of supply, the local vendors generally were satisfied with knowledge which was practically not more

precise, and the middleman himself had no exact knowledge as to how the milk from his various sources was distributed. Hence, when the milk of a particular farm acquired infective properties there were no means of ascertaining which farm it was that was involved, and while the evidence was being analysed infective milk was being distributed, and as a result some 300 persons were attacked with scarlet fever. Clearly this is a possibility which ought to be prevented in the future, even if it causes some inconvenience to the milk trade. It ought to be possible for each local vendor to know from what source his supply is derived so that that supply can be eliminated if it is found to be causing disease among the consumers. The fact that the farm from which the infective milk was received was detected so early in the outbreak with which this report deals may, of course, be used as an argument on the other side, but it cannot always be depended upon that future inquiries will be conducted as expeditiously as they were in the case which we are discussing; and even the May outbreak would probably have ceased a day or two earlier had it been possible—as it ought to have been if the information had been available—to stop the supply of the infective milk at an earlier period.

There are other points in which the London Public Health Act requires amendment. It is, for example, patently absurd that it should not be contrary to law to supply a particular milk in other districts when its supply has been stopped in one district. Some better machinery for excluding infective milk from London is obviously needed, and this, it may be hoped, will at no distant date be provided. An interesting diagram in the report shows the sex- and age-distribution of the persons attacked during this outbreak. Males and females were attacked much as they are at ordinary times, but persons aged from 15 years and upwards were in this outbreak attacked in undue proportion, suggesting that when infection is received in a food-supply many persons suffer who in the ordinary course of life escape. This is not matter for surprise.

### The Medical Profession and the Public Vaccinator.

WE have thought it right to give a hearing several times during the recent recrudescence of small-pox in London to communications upon the subject of the relations which should exist between the medical profession and the public vaccinator. Undoubtedly there has been a growing feeling on the part of the general practitioners of the country that the public vaccinators have made a zealous discharge of their official duties resemble to a disagreeable degree the process of poaching upon the patients of their professional brethren. If no one has said quite so much as this, the feeling that is thus described has been present in the minds of our correspondents. This week we publish two letters on the subject which are only specimens of many that have reached us, and which bring the matter up for discussion in a convenient form because they formulate a distinct charge against the public vaccinators as a body. The charge is that a proclamation issued by the organising secretary of the Association of Public Vaccinators for

England and Wales to the public through the medium of the press is unprofessional in character.

The following is the proclamation in question :—

In view of the fact that considerable misapprehension exists in regard to revaccination, the organising secretary of the Association of Public Vaccinators for England and Wales writes to inform the public :—

1. That every person in England and Wales is entitled to demand revaccination at his own house, free of charge, at the hands of the public vaccinator of his district, provided that such person has not been vaccinated or revaccinated within 10 years preceding the date of his demand.

2. That the name and address of the public vaccinators for each district in England and Wales can be obtained from the clerk to the guardians and from the registrars of births and deaths.

3. That public vaccinators are the only medical men who are compelled to use the safeguards prescribed by the regulations of the Local Government Board, and that they are the only persons who can obtain the pure glycerinated calf lymph prepared in the laboratories of the Local Government Board, and that they are compelled to use that lymph in all cases of vaccination and revaccination in their own district.

It is with regard to the third clause of this proclamation that we have received indignant letters of protest. A large number of our readers consider that it amounts to a thinly-disguised attempt on the part of the public vaccinators to detach patients from their professional brethren. The assertion that the public vaccinators are the only medical men who are compelled to use the safeguards prescribed by the regulations of the Local Government Board almost amounts, in their opinion—and we see very clearly their side of the matter—to the insinuation that the general practitioners of the country are not able to take proper precautions to secure safe and efficient vaccination. Similarly, the statement that the public vaccinators are the only persons who can obtain the pure glycerinated calf lymph prepared in the laboratories of the Local Government Board throws a doubt by implication upon the quality of the lymph used by operators not holding an official appointment. The circular, in short, while pointing out to the public the ease with which the public vaccinators can vaccinate all persons resident within their district, makes claim for them that they are the only persons who can perform the little operation satisfactorily, being the only persons who possess the proper lymph with which to make inoculations. If these claims are not made in set terms it is certain that these are the only deductions that the public is likely to draw after reading the circular. And everyone knows that these deductions are entirely false. It is true that the public vaccinators are the only persons who can obtain the Local Government Board lymph, but the Local Government Board lymph is not the only efficacious lymph that can be obtained. It is obviously absurd to suppose that vaccine lymph can only be properly prepared in a laboratory rented by the Local Government Board and by a bacteriologist employed by the same body. Indeed, we have shown that this is not the case. THE LANCET Special Commission on Glycerinated Calf Vaccine Lymphs reported last year<sup>1</sup> upon the quality of thirteen lymphs then on the market, when the Local Government Board lymph was found to occupy a middle place. It was freer from extraneous matter than were six brands, but it did not answer quite so favourably to tests as six other brands did—all, however, were found to be absolutely pure of pathogenic organisms.

That is to say, that, unless the Local Government Board lymph has improved during the last eighteen months more than the other brands of lymph have improved, the monopoly enjoyed by the public vaccinators in the acquisition of the lymph gives them, as we should expect, no particular advantage.

The Association of Public Vaccinators for England and Wales must qualify or withdraw their notice to the public if they desire to receive the support of their professional brethren. We are not blind to the difficulties with which public vaccinators have to contend. Their posts are not enviable ones: they are not well paid, and, in certain districts, they are not worth having. The public vaccinators and vaccination officers form the executive of the Government upon whom, to a certain extent, the responsibility of seeing that their districts are kept properly vaccinated devolves. The vaccination officers are right to issue instructions to the public urging upon the public the necessity of being vaccinated and pointing out the way in which this result can be secured. But such notices should not be carelessly worded. We have grave doubts whether the proclamation in question will be countenanced by many public vaccinators who are themselves in medical practice and realise to the full the importance of adhering strictly to medical etiquette in all dealings with their colleagues, while they must see that the emoluments and considerations that they enjoy as Government officials are due to the fact that they are medical men. Anything which tends to persuade patients who are perfectly well able to pay for the small operation of vaccination to present themselves at the offices of the public vaccinator so as to have the operation performed gratuitously is to be regretted. The medical profession does too much work for no pecuniary return, while the public has in many directions shown itself to be without conscience in obtaining medical service gratis wherever it can be secured. The fact that it is open to any man, whatever his status or occupation, to be vaccinated for nothing by the public vaccinator is not one that requires to be brought home to the mass of the public at all. They may be trusted to find out such things for themselves. This, however, is not the more serious side of the circular. The serious side is the insinuation that the public vaccinators possess qualifications and opportunities for performing an efficacious operation which are not possessed by their professional brethren, the general practitioners. This false suggestion may not have been intentional. We will go further and say we are sure that it was not intentional, but it is there. No one can read the circular without seeing that it is there, and many hundreds of general practitioners have read the circular and have been disgusted with it because of the slur upon them which they cannot help reading into its words. The matter is now so serious that we think another circular should appear correcting the impressions of the first one, and stating in the clearest possible terms that there is no reason whatever to suppose that the public vaccinators can vaccinate the public better than can other medical men. The public vaccinators will treble the difficulty of their already difficult position if they divorce from themselves the sympathy of their medical colleagues, especially in districts where the public is not too well

<sup>1</sup> THE LANCET, April 28th, 1900, p. 1227.

inclined towards them. From motives of sheer policy, if not of right feeling, the offending third clause of the circular of the organising secretary of the Association of Public Vaccinators for England and Wales should at once be recast or, better still, withdrawn.

## Annotations.

"Ne quid nimis."

### THE ARBITRATION IN THE POTTERY TRADE.

LORD JAMES OF HEREFORD, the umpire in this case, has brought the proceedings to an abrupt termination by declaring that as it was shown that lead-poisoning had greatly decreased under the last rules there was no need to impose fresh ones, at all events for the present, as to the use of fritted lead or as to the examination of adults. These questions, he added, might be postponed for 18 months, and would be then again postponed if necessary. Was ever such a ridiculous situation created in the teeth of the laborious inquiries and reports undertaken by the Government's chosen experts, Dr. T. Oliver and Dr. T. E. Thorpe, in which the one clear recommendation standing out before all others was the adoption of definitely fritted lead. We learn that this decision has given general satisfaction locally—that is, in the pottery district at Hanley. We wonder whether this satisfaction is shared equally by the workers and their masters. We view the decision with the deepest dismay; it is premature and dangerous.

### PNEUMOTHORAX FROM PARACENTESIS THORACIS.

PNEUMOTHORAX is a rare result of paracentesis thoracis. At the meeting of the Société Médicale des Hôpitaux of Paris on Oct. 11th Dr. Variot and M. Pierre Roy related the following case. A girl, aged 11 years, was admitted to the Hôpital des Enfants-Malades on May 29th. She was said to have had pneumonia in March and a relapse in April. After this she had a cough and pain in the side, expectorated some mucus, and lost about five pounds. Over the lower two-thirds of the right lung behind vocal fremitus was absent, dullness was well marked, and the vesicular murmur was almost abolished. At the level of the spine of the scapula slight bronchial breathing was heard. The apex of the lung was normally resonant. The temperature was normal. There was evidently a slight pleural effusion, probably serous. Counter-irritation and the administration of squills proved useless. On June 17th two exploratory punctures with a Pravaz syringe were made in the seventh and eighth intercostal spaces without result. Nevertheless paracentesis was performed. The patient was placed in the dorsal decubitus position and the fine needle of Potain's instrument was inserted in the seventh intercostal space in the axillary line. Serous fluid flowed slowly into the bottle and was mixed from the first with air bubbles. It was certain that no air was entering by any of the tubes. The liquid flowed so slowly that in three or four minutes only 120 grammes were discharged. The child was then seized with persistent cough, and the needle was rapidly withdrawn and the opening was closed with collodion. There was no trace of blood at any time in the fluid. After the needle was withdrawn the coughing instead of stopping increased. Soon the child expelled by the mouth and nose a large quantity of sanguineous serous fluid which was a little frothy. At the same time the face became cyanosed and the pulse thready. Instant asphyxia was feared. The child complained of acute pain in the right side

and cried out that she was being stifled. Under subcutaneous injection of ether, inhalation of oxygen, and a sinapism applied to the back the symptoms diminished. The expectoration, however, continued, and in a quarter of an hour the child had expelled 250 grammes of frothy sanguineous liquid. On auscultating the chest behind, over the position formerly occupied by the effusion, amphoric breathing was heard and the cough had an amphoric character. The percussion note here was tympanitic. A quarter of an hour after the paracentesis the child was quiet. Half an hour later fits of coughing reappeared with the same sero-sanguineous expectoration. They were assuaged by the sucking of ice and a hypodermic injection of morphine (one-seventh of a grain). In the evening she was comfortable, but the temperature was 104° F., and every time she moved she coughed; in the afternoon she had expelled about 250 grammes of the fluid. On June 18th the temperature was normal; about 190 grammes of the fluid were expelled. On June 19th the cough had disappeared. In the right infrascapular region amphoric breathing persisted, but in the upper part vesicular breathing was heard. Percussion seemed to show a small quantity of fluid in the pleural cavity, but a succussion sound could not be obtained. On the following days large mucous rales were heard in front on the right side and there was slightly fetid muco-purulent expectoration with factor of the breath. On July 10th amphoric breathing was heard with difficulty. She was sent to a convalescent home. On August 26th sonorous rales were heard in both lungs. There was dullness of the lower two-thirds of the right chest with slight diminution of the vesicular murmur. On Sept. 4th there was some dullness of the lower third, and inspiration here was harsh and expiration slightly bronchial. In this case partial pneumothorax was evidently produced by the paracentesis. Dr. Variot and M. Roy insisted that the lung was not punctured by the needle, for not a drop of blood escaped with the aspirated fluid. The fact that 120 grammes of fluid were removed shows that the external air was not admitted to the pleural cavity. They think that in the region of the pleurisy the lung tissue was diseased and fragile and was torn under the influence of the aspiration, perhaps by the strain on a pleural adhesion. The expectoration was evidently due to the passage of the pleural effusion through the pleuro-pulmonary fistula so formed.

### THE COAL SMOKE ABATEMENT SOCIETY.

As we announced last week, a public meeting will be held in support of the objects of this society at Grosvenor House on Wednesday next, Nov. 20th. The following motions will be submitted to the meeting:—

1. That the pollution of the air by coal smoke is an evil injurious to public health and that every effort should be made to secure the laws existing for its prevention being kept in effective operation.
2. That the rapid deterioration of works of art and vegetation in London due to the effects of coal smoke demands an immediate and comprehensive remedy.
3. That the darkness and impurity caused by smoke pollution have a directly demoralising effect upon the inhabitants of a great city.
4. That as a matter of private and public economy the escape of smoke from coal fires is a preventable waste of energy and material.
5. That this meeting, in recognising the practical results already achieved by the Coal Smoke Abatement Society with the limited resources at its disposal, and in approving its line of action, pledges itself to use its best endeavours to place it in a position to extend its operations.

We are not sure how far pollution of the atmosphere by coal smoke has played a determining part in the dense fog that enshrouded London during the first week of November. Probably no two experts would give exactly the same opinion as to the influence that it played, but certainly no one can doubt that its share was considerable. An acute remembrance of the miseries of that week should be present in the minds of all those who attend the public meeting, which we trust will be a large one, and should impel them not only to pass the motions with acclaim but to work with the Coal Smoke Abatement Society in finding

a remedy for them. The excellent society, over which Sir William Richmond presides, is a remarkably alert and active one. It has received but small support either from the public or the medical profession and deserves much wider notice and much more generous help. Medical men have many ways, perhaps more strictly medical in their direction, of getting rid of their spare guineas, but this society is one that would appeal with particular force to the lay mind if the therapeutic nature of its work were understood. We wish all our London readers would impress upon their patients the fact that to abate coal smoke in the metropolis is to improve the public health of the city in a marked manner.

#### THE PHYSIOLOGY OF MARCHING.

"The Physiology of Marching" is the title of an essay by Herr N. Zuntz and Herr Schumburg recently published in Berlin by Hirschwald and abstracted in the *Centralblatt für die Medicinischen Wissenschaften* for October. Their investigations, which have been carried on for some years, were undertaken to ascertain the limits of weight that a soldier on the march could advantageously carry. They experimented on five healthy students who had already seen service and who for a long period marched fully equipped about 15½ miles daily. Amongst the more important points noted were that sphygmograms taken before, during, and after the march showed that the increased work of the heart consequent upon the muscular exertion prolonged the systole of the heart and the ascending line of the pulse curve at the cost of the diastole—an effect that was distinctly visible after a march of only 12 miles. This prolongation of the systole rose with the amount of weight carried to such a degree that when the beats of the heart were between 140 and 150 per minute the duration of the systole was to that of the diastole as 1 is to 1. So that the period of the rest of the heart became constantly less, indicating a not inconsiderable degree of increase in the work of the heart. An increase of the regulation weight carried by German soldiers from the ordinary amount of 48·4 pounds to 59·4 pounds produced the same effect, whilst when the weight was raised to 78·4 pounds the danger of seriously injuring the heart was greatly increased as shown by a fall of the blood-pressure and of the arterial tension. Simultaneously an acute dilatation of the heart, recognisable by percussion, and enlargement of the liver in consequence of blood stasis and accumulation of blood in that organ were observable. As a result of the dyspnoea from exertion the driving force of the heart became still further reduced, the volume of blood propelled into the arteries was diminished, and the blood in the great veins re-entered the heart in smaller quantity and more slowly. In healthy persons the dilatation of the heart gradually disappears and in the course of two or three hours the normal conditions are restored. Speaking generally the number of red corpuscles and the specific gravity of the blood increased during the march owing to the great loss of fluid by the lungs and skin. The frequency of the respirations was increased whilst marching, though after a short rest the number returned to the normal. The vital capacity was diminished. The heat of the body increased on the march, sometimes to quite a remarkable extent and even though the weight increased and there was more or less physical exhaustion. In one case it amounted to 40° C. (104° F.) and more. In order to determine the consumption of food and the nature and quantity of the excreta the diet was kept as uniform as possible. It appeared, to the great surprise of the experimenters, that notwithstanding the abundant secretion of sweat the urine on marching days was more abundant and of less specific gravity than on the days when rest was taken. Albumin, indicated by a precipitate on boiling, was rarely

present and then only for a brief period. The nitrogen-containing substances were just the same on the days of rest and of marching, so that there was no increase of metabolism in the albumin of the body, nor was the composition of the contents of the intestine materially different on days of work and days of rest. Subsequent sections of the essay deal with the exchange of gases during work and while at rest, as well as the heat value of the work done. 70 per cent. of the heat generated is carried off by the sweat and the greater the amount of heat produced by work the more abundant is the secretion of sweat, but many factors have to be considered, as the temperature and degree of moisture of the air, the velocity of the wind, and exposure to the sun. As the men became more "trained" by exercise the amount of sweat diminished.

#### THE HOSPITALS AT ATHENS.

In the *Phonographic Record* for October Dr. G. F. Atchley (consulting surgeon to the Bristol General Hospital) gives an interesting account of a visit he recently made to the hospitals at Athens. The children's hospital, about two and a half miles outside the city, "consists of one large ward containing 16 to 18 beds with a small isolation ward and nurses' rooms. The original design contemplated six of these pavilions, but, as usual, want of funds has hitherto prevented further building. The situation is perfect; abundance of room for any possible extension or for playgrounds. The building has been 'scamped,' the tiled floors are all going to pieces, the windows do not fit, and generally the work has been done in a very inferior manner. I understand that more care will be taken in future to secure better work. A large number of patients were in bed with various forms of tubercle, especially tubercular peritonitis. The nurses were all English. It is found very difficult to get Greek nurses to stay; they all want to be nearer Athens. .... At present any cases which require operation are sent to the Evangelismos Hospital, where the facilities for operating are almost perfect. The Evangelismos is a large general hospital for over 200 patients and having both medical and surgical sides. Here I found everything in the highest state of efficiency. The practical part of medicine and surgery was up to date and in some respects even in advance of our best English hospitals." Dr. Atchley saw Dr. Tsakonas operate on a boy with stone and on a woman with ovarian tumour. "The operation chosen for the calculus was suprapubic. It was most successfully carried out, the wound in the bladder being stitched with catgut (continuous suture) and the outer wound being treated in the same manner." For the removal of the ovarian tumour "a new method of anaesthesia was used. .... A needle, made especially for the purpose and like a long hypodermic needle, was connected with a syringe and inserted opposite the second lumbar vertebra just outside the backbone. It was made to penetrate the spinal canal and only a little cerebro-spinal fluid escaped. Then cocaine was injected. In about 20 minutes anaesthesia was produced over the whole lower half of the body below the umbilicus. Although in this instance not quite enough cocaine had been used and a little chloroform became necessary, Dr. Tsakonas told me that he had used it in 163 cases without a single accident. Usually the anaesthesia is complete. The patient remains perfectly conscious all the time of the operation and there are positively no after-symptoms whatever. The practical difficulty seems to be to ascertain exactly the amount of cocaine which should be allowed to enter into the spinal canal. Probably eucaine or one of the similar compounds would be less likely to be injurious should an overdose be injected. It has now become a customary practice in this hospital and

further experience will doubtless be attended with increased accuracy as to the dose as well as the method of introduction. The two tumours were removed with great skill and the sutures used were again continuous. First, the peritoneum was hemmed, then the musculo-fibrous covering, and, lastly, the skin, all with one thread. A single large suture tied the skin and fascia together in the middle of the wound. Collodion was painted over all, an antiseptic dressing applied, and a bandage completed the proceeding. It seems that here all these wounds heal up by first intention and are never followed by secondary trouble. The greatest precautions are taken against the introduction of germs. On entering the theatre I was, in common with all those present (about 20 in number), covered with a sterilised waterproof cloak and sleeves; the air had been also sterilised and, of course, all instruments. No sponges are used, but sterilised pieces of calico like small pocket-handkerchiefs, and each of these when used was clipped by the catch-forceps. I subsequently went over the whole hospital under the guidance of one of the resident surgeons and was delighted and somewhat surprised at its very advanced and scientific management. .... Greek nurses are here to be found and from what I saw were very well trained." Dr. Atchley also visited the military hospital, nursed by English nurses. This he found to be very efficient but not so up-to-date as the one just described.

#### HOMO VERMIGENES.

THE *Daily Express* of Nov. 4th publishes the kind of *ad captandum* illustration that appeals to the great mass of newspaper readers still in the habit of regarding science, and especially the Darwinian theory, in the light of unpleasant paradox. The picture in question represents the "ladder of evolution," and this, with accompanying letter-press, is headed "How a Flat Worm became a Man." Professor Ernst Haeckel of Jena is thus pictorially represented as tracing the descent of man from the flat worm through the eel, the iguana, and, *longo intervallo*, the opossum, the stenops, and such apes as the gibbon and the semnopithecus. From the point of view of embryology this theory is, of course, ancient, for as long ago as 1704 we find Geoffroy, a learned Parisian doctor and member of our own Royal Society, maintaining a thesis which, at first sight, seems a distinct adumbration of Haeckel's view. The French title of the thesis, as translated by Nicolas Andry from the Latin, is "*Si l'Homme tire son Origine d'un Ver?*" Geoffroy seems to have been familiar with the microscopical investigations of Leuwenhoeck, published some 20 years earlier, and though he does not actually refer to the Dutch histologist's "animalcule" in human semen, yet his "worm" is practically the same thing. The spermatozoon does not seem to have been detected till a much later period, yet Geoffroy had certainly got in a fanciful way to the root of the matter. Man, he maintains, springs from a minute worm, which, issuing from the male, unites with the ovum of the female, thus originating the human embryo. Throughout his treatise he insists that the processes of fertilisation, gestation, &c., are the same throughout the animal world. Man, according to him, reproduces exactly as do other viviparous animals. Indeed, his views come so near what would in his day have been considered grave heterodoxy that he must certainly rank as an important pioneer of the modern doctrine of evolution.

#### PRECOCIOUS MATERNITY.

IN the October number of the *Maryland Medical Journal* Dr. L. M. Allen, Associate Professor of Obstetrics in the University of Maryland, describes a case in a coloured girl,

aged 11 years, who was when in the seventh month of pregnancy admitted into the Free Lying-in Hospital of the university. She had the appearance and characteristics of a child of 11 years, was fond of playing with dolls and of childish amusements, and was four feet five inches in height; there was no evidence of rickets or any other disease. Menstruation first began, as far as could be ascertained, at the age of 10 years and three months, and had been regular. The pelvic measurements were as follows in centimetres: interspinous, 22; intercrystal, 21.5; right external oblique, 18.5; left external oblique, 18.5; external conjugate, 14.25; circumference, 77; distance between trochanters, 28.25; diagonal conjugate, 8.5; and conjugata vera, 6.5. The foetal heart was heard with maximum intensity in the left lower uterine quadrant. The pregnancy advanced to full term and labour began at the expected time. After the labour had lasted about 14 hours the patient was put upon the examining table, and while the resident physician was preparing to make an examination the child was born. After half an hour the placenta was delivered artificially. A normal amount of blood was lost. The patient made a rapid and uneventful recovery. The infant was well developed in every respect, and when sent away to an orphan asylum on the sixteenth day was in very good condition. It weighed seven pounds two ounces. The measurements of the head were as follows in centimetres: occipito-mental, 12.6; occipito-frontal, 11.2; suboccipito-bregmatic, 10; biparietal, 8; bitemporal, 7.2; circumference of head, 32. Points of interest in the case were the extremely easy labour with a very small pelvis and the comparative absence of pain. During the whole labour hardly a sound was uttered by the patient, even during the passage of the head and shoulders over the perineum. At the time of conception the mother was about 10 years and 11 months old, and when the child was born her age was 11 years and eight months.

#### THE WHEAT PROBLEM.

AN investigation of great interest, which is likely to render valuable service to those engaged in the management of crops, has been undertaken by Bernard Dyer, D.Sc., F.I.C., the results having recently been published in the *Philosophical Transactions of the Royal Society*. Some years ago Dr. Dyer communicated an interesting paper to the Chemical Society in which he proposed the use of a 1 per cent. solution of citric acid as a means of approximately differentiating by the application of chemical analysis between the total and the probably available phosphoric acid and potash in soils. The citric acid method was the result of an attempt to imitate in the solvent used the acidity of root sap based on a preliminary examination of the root acidity of 100 specimens of flowering plants representing some 20 natural orders. There is no doubt that this method has brought valuable results to light. It has been applied to 22 samples of soil drawn from various plots on which barley under very various manurial conditions had been continuously grown for over 40 years. The results were of sufficient interest to lead to the undertaking of a similar but much more extended examination of the soils of Rothamsted in what is known as the Broadbalk field. These plots have been continuously under wheat now for considerably more than 50 years. The manurial history of each plot and its yearly yield of grain and straw are all on record and periodical analyses of the ashes of each year's crop from most of the plots have been completed sufficiently to allow of an estimate of the yearly removal of both phosphoric acid and potash. The soil of each plot was sampled in 1865 and in 1881, as well as in 1893, the three sets of samples, representing not only the surface soil (the first nine inches) but also the second and third depths, each again to the extent of nine inches. These samples were placed by the late Sir John

Bennet Lawes and Sir Henry Gilbert at the disposal of Dr. Dyer for the determination of the total phosphoric acid and of the potash soluble in strong mineral acid, but more particularly for the further investigation of the citric acid process which was calculated to give a better insight into the fertilising value of various soils at various periods of their history and at various depths. The results are, of course, of scientific interest, but they are of practical value also as throwing a light upon one of the most important questions to the community—namely, the successful raising of food upon the land. When examined by this citric acid method certain of the soils showed differences which can be traced to variations in manurial treatment more than 40 years previously. In regard to phosphoric acid it is shown that by far the greater portion of the unconsumed phosphoric acid added in manure is accumulated in the surface soil, although most of the phosphoric acid had been originally soluble in water and its application had extended over 50 years. In the case of dung, however, there is a considerable descent into the second and third (nine-inch) layers. In the case of superphosphate there is evidence of a descent into the second, and even the third, nine-inch layers. In chemically manured plots the greater part of the calculated accumulation of phosphoric acid is found by analysis in the surface soil, and a large proportion of it proves to be soluble in weak citric acid. The citric acid method thus enables an evaluation of the soil to be made at different depths, which is of the greatest importance in connexion with the problems of root-range and subsoil feeding. The results obtained by the use of weak citric acid in the case of potash are similarly strikingly instructive and consistent, showing that the largest accumulation of manurial potash is in the surface soil, but that a very large proportion is also found in the second layer (nine inches) and even in the third layer. Dr. Dyer remarks that it would seem, on the whole, probable that when a soil in the surface depth contains as much as 0.01 per cent. of potash soluble in weak citric acid the special application of potassium salts, at any rate as far as cereals are concerned, is not needed. Dr. Dyer may be congratulated on the interesting results which he has brought to light by the application of a method which he suggested, representing as far as possible the conditions under which the plant gains nourishment from the soil. The more actively and practically the great question of fertilising the soil is approached the less will apprehension be felt as to the future wheat-supply of the world in spite of Sir William Crookes's well-known predictions as to the possibility of a nitrogen-famished soil.

#### RACIAL LONGEVITY AND LIFE INSURANCE.

THE statistics collected for American life insurance companies admit of comparisons which are not needed for the British insurance business. However divergent in origin, the British people have become sufficiently alike for the purpose of life insurance. In the United States, on the contrary, so large a proportion of the population have recently come from Europe that the question of original nationality is still a matter of practical importance. An English insurance company would not ask an applicant whether he was a Dane, a Saxon, a Briton, a Roman, or the descendant of a Huguenot refugee, and most persons would find it very difficult to answer such a question. In the United States, on the contrary, life insurance is founded on the longevity of the people of various countries and States. Statistics have shown that the Norwegians and Swedes have the longest lives. This is attributed not only to their general good physique but more especially to their freedom from digestive troubles. Mr. John F. Dryden, President of the Prudential Life Insurance Company of New Jersey, finds that the people who may be qualified as genuine

Americans have the longest life after the Swedes and Norwegians. Mr. Frederick L. Hoffman, the chief insurance statistician of America, states that the death-rate of persons under 20 years, and especially young children, is greater in the United States than in most European countries; but that after middle-age Americans live longer. He further claims that in spite of excesses committed in large towns people, as a whole, live a more temperate life in New England than in Old England. It is stated by these statisticians that out of every 10,000 children born in each of the four following States: 7551 will live to the age of at least 20 years in Sweden, 7201 in England, 7167 in Massachusetts, and only 5413 in Spain. The number that reach the age of 50 years, out of 10,000 born, are 6043 in Sweden, 5405 in England, 5275 in Massachusetts, and 3765 in Spain. The proportion in 10,000 attaining the age of 75 years is 2948 in Sweden, 2042 in Massachusetts, 1786 in England and Wales, and only 997 in Spain. It is claimed that sanitation generally has been much improved in America, that there is a wider diffusion of prosperity, and that the American people are made up of the best elements of the white races and that therefore the proportion of those who live beyond 50 years is greater. On the other hand, these conditions have not influenced favourably the negro race. Though they should be acclimatised—for the negro race has now inhabited America for some 200 years—the negro death-rate has nevertheless greatly increased, especially since the abolition of slavery. The fact is, that there is now less restraint on his tendency to debauchery and that the negro displays the most complete disregard for sanitary precautions. Perhaps these are but the first results of the emancipation of the slave; with time and the better spread of education he may mend his ways.

#### MEDICAL PLAYS ON THE FRENCH STAGE.

FOR some years past the modern stage has given more and more room to medicine in the subjects of which it treats. One or more medical men were often among the *dramatis personæ*, although as a rule they only played a secondary part. But to-day when authors are always on the look-out for original subjects and make the stage a pulpit from which they can preach with dramatic effect various theories dealing with human or economic sociology the leading character is a medical man or the whole point of the play turns upon some medical question. Soon after the extraordinary effect produced by Ibsen's *Revenants*, which treated of the influence of heredity, M. Brieux dealt with the same subject in his play *L'Evasion*, where he upheld the thesis, one not very strongly borne out from a scientific point of view, that the modern view which looks upon heredity as a sort of moral and physical prison from which the individual can never escape is false, and that the will, aided by some powerful motive—such as love, is sufficient to extricate the individual from his cell. Then came other plays, such as *En Paix*,<sup>1</sup> which dealt with the French Lunacy Law and *Les Remplaçantes* which showed the beauty of a mother suckling her child as against the vice of handing it over to a hired wet-nurse. Only recently three new medical plays came out, two of which have been produced while the third was interdicted by the censor. One called *Le Baillon* centres in the question of professional secrecy. A young girl suffering from tuberculosis is betrothed to a young man who asks her physician, Dr. A., as to her condition. Dr. A. refuses to give him any answer, as to do so would be a breach of professional confidence. The parties are married and later, when the disease has far advanced, a specialist, Dr. B., is called in who reproaches Dr. A. with not having prevented the marriage. Dr. A. repeats his argument and points out that Dr. B. has

<sup>1</sup> THE LANCET, Jan. 20th, 1900, p. 204.

himself written a book in which he upheld the theory that nothing whatever could justify a breach of professional confidence. So the play ends leaving the audience face to face with a difficulty which has been presented to them in the most forcible manner. The second play is a comedy the scene of which is laid in a little village. A girl who has been jilted by her lover suddenly falls into a state of lethargy. The lover to his great regret is forced to support the girl while in this condition. Little by little, however, the story of the sleeping girl gets wind and the village is thronged with curious visitors and committees of scientific inquirers. Thereupon the lover has the brilliant idea of making everybody pay a small fee to see the girl, when all of a sudden she wakes up quite well. But the lover begs her to keep up her slumber so that no one will lose the monetary advantages brought both to themselves and the villagers by the host of visitors. So she sleeps every weekday and wakes up on Sundays, with the result that the whole village becomes rich and she is enabled to bring a substantial dowry to her lover, to whom she is eventually united. The third piece, which has been prohibited, is called *Les Ararics* and has for subject the question of the dangers of the marriage of syphilitics. It was prohibited as immoral, although syphilis is not mentioned. But the play is dedicated to Dr. Fournier, Professor of Syphilography at the Faculty of Medicine and President of the Association for Promoting Sanitary and Moral Prophylaxis, concerning which our Paris Correspondent sent an account which appeared in our issue of Dec. 2nd, 1899, p. 1554. No one could mistake the subject of the piece, but its prohibition has been the cause of a lively discussion in the press. On the one hand, it is argued that a dramatic author should be allowed to present on the stage whatever subjects he likes, while others affirm that it would be harmful to morality to discuss so publicly such delicate pathological matters.

#### THE MANCHESTER AND SALFORD SEWAGE AGAIN.

MANCHESTER and Salford afford so marked an illustration of the suffering that arises from the neglect as well as the ignorance of old times that it should be noted well by all growing places. The Mersey and Irwell Joint Committee consider that Salford has been dilatory as to the treatment of its sewage and have decided "that the clerk be instructed to take such proceedings as would be necessary in accordance with the terms of the order of the court, dated July 9th, and May 23rd, 1898." One of the members spoke feelingly as to the Ship Canal never having been so filthy as during the past summer and of the immeasurable suffering from the filthy stench at Eccles, where "he had not been able to open his drawing- and dining-room windows for a week at a time." Manchester was dealt with more leniently, as it was considered "that the corporation were earnestly endeavouring to meet the wishes of the Joint Committee, and they recommended that the consideration of the position of the Manchester Corporation should be adjourned for six months." It is stated that in a few months more than half the sewage of Manchester will be dealt with on the bacterial system.

#### RUMINATION IN THE HUMAN SUBJECT.

In a long paper reprinted from *Il Policlinico* (Rome: Società Editrice Dante Alighieri) Dr. Silvio Silvestri of the Civil Hospital, Verona, has given an interesting account of a case in which of a family of six persons the father and three sons possessed the unusual faculty of rumination, whilst the mother and only daughter were normal in this respect. Several writers have already observed that the subjects of this peculiarity were most usually males from 10 to 20 years of age who suffered also from some neurotic condition such as

hysteria, neurasthenia, epilepsy, idiocy, or mental aberration. Dr. Silvestri's observations were made upon the three brothers above referred to, who were respectively 20, 18, and 15 years of age. Their family history showed a neurotic taint, for a maternal uncle had died insane, and the father was not only neurasthenic, but presented the phenomenon of rumination when a young man, whilst the mother had never exhibited any neurotic symptom and the sister of the young men although neurotic did not ruminate. The eldest brother was hypochondriacal, irritable, and incapable of mental work. Rumination commenced at the age of 15 years without any recognised cause and had continued up to the present time. His motor and sensory conditions were normal, as were also his organs of special sense with the exception of a slight diminution of the visual field; his knee-jerks were exaggerated; the other reflexes were normal. About 10 minutes after taking food he began to experience a sense of weight in the epigastrium and soon afterwards an imperative need to return the food to his mouth, a manœuvre which was more easy with solid and semi-solid substances than with liquids. The different articles of food returned to the mouth in the order in which they had been taken, so that the man had a double experience of all the flavours of a dinner. A powerful effort of will was generally capable of preventing the occurrence. During the first hour there were about 25 separate acts of rumination; then their frequency decreased and they came to an end about two hours after the food had been taken. With the second of the brothers, aged 18 years, rumination had existed for four years without being attributable to any known cause. With the third of the brothers, aged 15 years, it had existed for about two years. He said that he remembered distinctly that it commenced after he had fallen from a height of six feet, striking his thorax and epigastrium against a stone. Re-mastication of the food is an essential of rumination, which is thereby sharply distinguished from simple regurgitation. Dr. Silvestri has seen an instance of regurgitation in a man, aged 22 years, who for about the space of a year felt his food rise into his mouth some minutes after it was taken, so that he either had to eject it or if he was in company he swallowed it again without chewing it. The first rational explanation of rumination in the human subject was given by Dumur<sup>1</sup> who ascribed it to paralysis of the muscular tissue of the lower end of the œsophagus. Dr. Silvestri defines it as a motor neurosis of the stomach, the exciting cause of which is an abnormally sensitive mucous membrane, but the primary cause is cerebral or psychic (cortical). He gives references to about 27 memoirs on the subject and makes several suggestions as to treatment.

#### THE OVERLOADING OF HORSES.

ANYONE whose occupation calls him into any portion of London where there is much traffic cannot but be struck by the disgraceful manner in which horses drawing coal, timber, and other heavy goods are overlaid. The principle upon which owners go appears to be this: they ascertain how much a horse can draw in dry weather upon a smooth asphalt or wood pavement on the level. Regardless of the incessant changes of surface, whether due to inequalities caused by road-breakers, the vagaries of the weather, or change of level, they send their horses out in all weathers with a load calculated upon the rule which we have indicated above. Over and over again we have seen carters vainly endeavouring to get a perfectly willing horse attached to a heavy load up the steep ascent of Bedford-street. We wish to give the average carter every credit for the patience and gentleness with which he treats the horse in his charge, but it is not fair either to the man or to the horse

<sup>1</sup> De la Paralysie du Cardia ou Mérycisme (Diss. Bern., 1859).

that they should be called upon to perform impossible tasks. The sole reason why owners behave in this manner is due to a desire to save their pockets, but we should have thought that truer economy would be to use either more horses or to give out a lighter load. The municipal authorities are by no means blameless, for they keep the roadways very far from clean, while as to the sprinkling of gravel the lower portion of Bedford-street is apparently a sort of no man's land. The Strand is occasionally washed and fairly well gravelled. The upper part of Bedford-street is washed every day or so and gravelled when necessary, but the portion between Maiden-lane and the Strand, in which the declivity is steepest, is, as far as our knowledge goes, hardly ever washed or gravelled. Here is a good field for anti-vivisectionist activity.

#### THE CHEAP PISTOL ONCE MORE.

THE murder of a bank cashier at Kennington, the narrow escape of his fellow-clerk, and the death of the murderer by his own weapon, do not enable us to add anything to what we have already written as to the unrestricted sale of cheap revolvers, except that we may point out that full reports of crimes of this class in the newspapers are read with eagerness by certain classes of the community and advertise the cheap revolver and its deadly characteristics, and thus, while they horrify reasonable people, suggest crime to those minds that are prone to accept such suggestion. In this connexion it may also be added that the "Leicester-square tragedy," the "Blackfriars tragedy," and the "Kennington tragedy" have this feature in common which they owe to the weapon the sale of which we would see closely restricted, that in each case the perpetrator of the crime has escaped justice. He has done so, truly, by sacrificing his own life, but suicide has ever been less dreaded by the criminal than trial and execution. In itself the Kennington murder is a typical instance of the crime which the cheap pistol almost creates. It could not have been committed so easily, and would hardly have been attempted, without firearms, while the murderer was apparently penniless when he did it, and in any case if the weapon had cost a substantial sum and if he had had to take out a licence before purchasing it he would probably never have thought of acquiring such a possession. It will be remembered that besides these startling crimes which attract wide attention, every assize in London and our other great cities brings before judges and juries similar cases of less sensational nature, such as felonious shootings without fatal result, while the uncounted accidents that occur are to some extent brought home to members of the medical profession but are hardly heard of by the general public.

#### POLITICAL ASSASSINS: A MEDICO-PSYCHOLOGICAL STUDY.

PROFESSOR CHARLES K. MILLS of Philadelphia contributes to the *Philadelphia Medical Journal* of Oct. 26th a long and interesting article dealing with the subject of political assassinations as a medico-psychological study. The investigation is based on 15 historical cases of assassinations beginning with that of Henry III. of France by Jacques Clement in 1589, and a careful study of the medical and psychological data shows that the assassins fall into four classes—viz., sane assassins, insane assassins, assassins who were "degenerates" but not insane, and finally assassins who were probably both degenerate and insane. Among sane murderers are classed the members of the Orloff family who in 1762 assassinated Peter III. of Russia, and Jacob Anckerström, an ex-captain of the army who killed Gustavus III. of Sweden. In the same class are included John Wilkes Booth the assassin of President Lincoln. Booth

was an alcoholic degenerate, erratic in life and conduct but not insane. Among insane assassins are included Ravallac, who in 1610 stabbed Henry IV. of France; Louvel, who in 1820 assassinated the Duc de Berry, son of Charles X. of France; and Guiteau, who assassinated President Garfield in 1881. Ravallac was the subject of visual hallucinations and religious delusions, Louvel was a monomaniac with fixed delusions, and Guiteau was a paranoiac with hallucinations and political delusions complicated with incipient symptoms of general paralysis. The "degenerates" of the assassin type include Clement (degenerate, fanatic, and mentally unbalanced), who murdered Henry III. of France; Charlotte Corday, who stabbed Marat in the times of the French Revolution; Cesario Santo, the assassin of the late President Carnot of France; and Michel Golli, anarchist and fanatic, who assassinated Señor Canovas, the Premier of Spain, in 1897. The three most recent assassinations include those of the Empress of Austria, King Humbert of Italy, and President McKinley. Luigi Luccheni, who assassinated the Empress of Austria, was a "degenerate with criminal instincts." Gaetano Bresci, the murderer of King Humbert, was a degenerate of moody temperament—a man whose criminal tendencies were diagnosed and foretold by Lombroso. As regards Czolgosz, the murderer of President McKinley, Professor Mills, from a very careful investigation of the facts available, concludes that he was a degenerate, but probably sane. Many of these degenerates, says Professor Mills, were youthful, and probably had they lived longer would have developed insanity, their earlier records showing that they were "borderland" cases on the margin of sanity and insanity. Thus, Jacques Clement was 25 years, Charlotte Corday 25 years, Booth 27 years, Luccheni 25 years, and Czolgosz 28 years of age. "Louvel had reached 37 years, and Guiteau 42, and in both of these cases the insanity was well developed." The lesson to be drawn from these studies is that the degenerate with criminal tendencies in youth requires permanent sequestration so as to prevent him from becoming dangerous to the community.

#### THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Mauritius received at the Colonial Office on Nov. 8th states that for the week ending Nov. 7th there were 85 cases of bubonic plague and 50 deaths. As regards Egypt, during the week ending Oct. 27th 2 cases of plague were reported from all Egypt. No deaths from the disease took place. The 2 cases, which were both in natives, occurred at Zifta. During the week ending Nov. 3rd 2 new cases of plague and 3 deaths from the disease were reported from all Egypt. Alexandria reported 1 admission and 1 death, Mit-Ghamr 1 admission and one death, and Zifteh 1 death from among the patients admitted during the previous week.

#### MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

A GENERAL meeting will be held in London at the rooms of the association, 11, Chandos-street, Cavendish-square, W., on Thursday, Nov. 21st, at 3 P.M., under the presidency of Dr. Oscar Woods. Previously to the general business the following will meet: Educational Committee, at 12 noon; Council, at 2 P.M. Sir Thomas Lauder Brunton, M.D., F.R.S., F.R.C.P., physician to St. Bartholomew's Hospital, will read a paper upon "Fairies, Apparitions, Visions, and Hallucinations." If time permits Dr. Lionel A. Weatherly will read a paper upon "The Evolution of Delusions in Many Cases of Melancholia," and Dr. William C. Sullivan (deputy medical officer of H.M. Prison, Pentonville) a paper upon "Crime and General Paralysis." The members will afterwards dine together at the Café Royal, Regent-street, W., at 7 P.M.

## A NEW MEDICAL KNIGHT.

HIS MAJESTY THE KING has been graciously pleased to confer a knighthood upon Mr. George Anderson Critchett. Mr. Critchett, who, as was his father the late well-known George Critchett, F.R.C.S., is an ophthalmic surgeon, and was educated at Harrow and Cambridge. He is senior ophthalmic surgeon to St. Mary's Hospital, was President of the Ophthalmological Society of the United Kingdom during the year 1900-1901, and he is surgeon-oculist to His Majesty. His many friends will join us in congratulating him upon his well-earned distinction.

## SMALL-POX IN LONDON.

SMALL-POX is not decreasing in any marked manner. On Saturday and Sunday, Nov. 9th and 10th, the fresh cases admitted to the hospitals of the Metropolitan Asylums Board numbered 29. On Monday, the 11th, there were 14 fresh cases; on Tuesday, the 12th, the number was 12; and on Wednesday, the 13th, the number was eight, being an average for the five days of 12.6 per diem.

## GUY'S HOSPITAL.

MR. COSMO BONSOR, the unwearied treasurer of Guy's Hospital, is publishing an urgent appeal to the public in behalf of this great charity. His appeal shows that Guy's Hospital requires immediately the sum of £180,000 to carry out constructive amendments to a building now nearly 200 years old, while an additional income of at least £14,000 is wanted to cover the annual expenditure of the hospital if it is to work at full efficiency. The medical and surgical staff of Guy's have made a splendid contribution of upwards of £2000 towards the needs of their hospital. That Guy's Hospital is a charity most deserving of support is a fact which our readers may be able to impress upon the public.

ON Dec. 3rd there will be a discussion at the Pathological Society of London on "Lymphadenoma in its Relation to Tuberculosis," which will be opened by Mr. H. T. Butlin. Gentlemen who wish to join in the debate or to show specimens bearing on this subject are requested to send their names to the Honorary Secretary of Section A, Pathological Society, 20, Hanover-square, W.

AT the Court of Assistants of the Worshipful Company of Dyers, held at the Hall of the Company on Nov. 6th, Dr. George Flux and Sir Edward Montague Nelson, K.C.M.G., took their seats as Prime Warden and Renter Warden respectively, they having been previously elected at the last General Court, held on Oct. 9th.

THE next dinner of the Glasgow University Club, London, will be held on Thursday, Nov. 28th, at 7 P.M., at the Hotel Cecil. Dr. G. A. Heron will preside and Mr. Norman M. Maclellan, M.B. Glasg., is to be entertained as the guest of the club in recognition of his long and valuable services as one of the honorary secretaries.

THE annual dinner of the Harveian Society of London will take place at the Café Monico on Thursday, Nov. 28th, at 7 P.M.; the President, Dr. D. B. Lees, will be in the chair.

THE General Medical Council will commence its next session at the Council's office, 299, Oxford-street, London, W., on Tuesday, Nov. 26th, at 2 P.M.

## "TYPHOID, THE DESTROYER OF ARMIES, AND ITS ABOLITION."

DR. H. E. LEIGH CANNEY delivered on Nov. 12th at the United Services Institution, a lecture on the subject of Typhoid Fever as the Destroyer of Armies. Sir WILLIAM BROADBENT presided and the lecture was well attended.

After pointing out that the great destroyers of armies, whether in war or peace, were typhoid fever, dysentery, and cholera, the lecturer discussed at some length the differences of opinion upon the way in which typhoid fever spreads and quoted examples from history—the Paardeberg outbreak, for example—to show the disastrous effect which it had upon military campaigns. He then proceeded to detail his scheme, which starts on the assumption that all water in war is to be regarded as contaminated. He said:—

*Certainty of method.*—I have adopted the method by boiling or heat sterilisation. This is the most practicable, least liable to errors in method, and requires less expert skill than filtration or chemical processes. This method has as advocates the late Professor of Military Hygiene at Netley, the present Director-General of the Army Medical Department, and the highest medical authorities in the French and American armies. In addition it has met with marked success in two or three minor campaigns. The method is also more rapid and certain than any chemical method.

*Simplicity of mechanism.*—The apparatus which I have proposed consists of a cylindrical copper boiler with large heating surface below, arranged in wedge-shaped pockets which can be easily cleaned. It holds 50 pints (six and a quarter gallons) of water. An iron stand is provided under which a petroleum lamp is placed, with rapid and complete combustion under air pressure. The whole weighs 38½ lb., and measures 33 inches in height by 17 inches in diameter. The apparatus is constructed to allow repairing very readily if shot through, and would be accompanied by duplicate parts, &c. Cloths would be used to strain mud from the water, but no other filtration of water would be desirable. This boiler and lamp can raise 50 pints (six and a quarter gallons) of water from 54° F. to the boiling point in 11 minutes, consuming three-quarters of a pint of petroleum. Cooling is effected, by covering the pint tins with cloth damped in the fluid, in six minutes. I may here mention that the most practicable steriliser hitherto found of any use on service is the Waterhouse-Forbes, which weighs 29 lb., and sterilises only five gallons of water per hour. There is also a later heavier variety. The apparatus which I have proposed sterilises about the same quantity of water as the best previously known in one-sixth of the time, with less consumption of fuel, and is about half the weight of the latter instrument. One mule (carrying easily 200 lb. weight) would transport the following supplies for the unit of 100 men:—

	Pounds.
Two machines, in cases with lamps and stands ...	90
42 pints of petroleum (sufficing for four pints of boiled water daily for each of 100 men for seven days) and case ...	45
Sugar, tea, meat-extract, vegetable powder ...	40
Saddle, two collapsible buckets and ropes ...	25
Total ...	200

*Time.*—In cases of urgency the men of the water section would only raise the temperature of the water to 180° F. This temperature would be reached in nine minutes and the liquid would be cooled sufficiently to drink as soup or meat-extract in two minutes. To obviate delay the time required could in most instances of urgency be arranged for by allowing the water section to advance half a mile in front of the troops, but a mile and a half behind the scouts, so that tea or soup should be ready on the arrival of the troops. The morning and evening meals would always be welcome as hot tea or soup, and probably the mid-day meal. The water-bottles and carts would be filled over-night with boiled water.

The machines and fuel would be used for no other purpose than for supplying fluids for the army. All water-carts and utensils used to convey water to the firing line must be under the control and care of the water section. Mules have been chosen as transport to prevent separation of the water section from the men in difficult country. The advantage to the men of being able to obtain rapidly tea, soup, &c.,

with their dry biscuit when the transport is often miles behind is something which, if once established, the men would never give up.

*Continuity of action.*—I have shown that there is at present no method known to science by which any specimen of water likely to be met with in war can be declared free from the enteric bacillus. As you cannot say, therefore, what part of your lines of communication may be attacked, you guard the whole extent. The water section must not rely upon the chance of finding fuel. The fuel used in this scheme is petroleum, and must be as constantly at hand as ammunition. For an army of 200,000 men, to give every man four pints of boiled water daily would require 547,500 gallons of petroleum for the year. This would cost about £16,000 and weigh about 1833 tons. The general transport required for this army daily is 2000 tons. This fuel would add daily about five tons to this 2000 tons, or an increase of 10 per cent. Further, to ensure continuity of action, the transport of this water section must be made independent of the general transport, and must march with the regiment or unit. The transport of reserve fuel required by the water section, minute as it is in regard to the total transport, must take precedence of all transport except one day's ammunition. The transport of the water section must be regarded as sacred, the amount telegraphed for must be sent instantly. No general should stop it or cut it down on any account whatever. Neither should the mules be used for any other purpose. The more difficult the country from a transport point of view, by reason of "single lines of rail" or none at all, the more urgent the need for absolute punctuality and precision in the details of the water-section transport and work, in order to effect the immense reduction of general transport that I have shown must ensue.

*Automatic working.*—To ensure this system working, a system which assumes that no water will be drunk in war from the day of embarkation to the day of return which is not "approved" by the water section, it is evident that much attention to detail is necessary, and that success depends on insisting that there should be no man in the army who is not directly interested in the scheme and its results. In fact, every man should look to this section for that protection which should keep him face to face with the enemy or his work, and should regard any departure from its protective action, either in himself or in his comrades, as an act of cowardice and likely to lead to serious injury to the army, to his comrades, and to his country. In this light also should the country regard his action. To reduce the number of these departures from duty to what no one can believe will not rapidly become amongst our men—regulars, volunteers, colonials, and naval—a mere fraction, various steps are necessary.

*The men.*—They must understand that the scheme is a sound one and can be relied on. Just as they rely on their artillery or service of ammunition, so they may expect smartness and training in their water section in the delivery of "approved" water. They must be earnestly taught by the sanitary officers of divisions, both by literature and otherwise, the consequences in the past to armies that have neglected these precautions. They must be taught to fear "unapproved" water, in peace and at manœuvres, not only on their own account, but for the sake of their comrades who will be exposed to grave risks in consequence of their departure from duty, for the sake of their families, and for the reputation of their regiment. If there are a few men unamenable to teaching, their comrades will know how to deal with them, and neither the country nor the army will regret their loss. This supposititious minority must be made no argument for neglecting to provide the remainder of the men with the means of keeping their face to the enemy whom they desire to meet.

*Officers.*—All officers must be trained and examined in the elements of sanitary science, as it concerns the management of camps, disposal of excreta, technique in force for providing "approved" water, selection of camp sites, &c. They must be directly responsible for the successful administration and working of the water section in the troops under their command and for the ordinary sanitation of their camps. In the sanitation of an army they must be considered to correspond to the sanitary or executive authority of civil life. In circumstances of real stress, such as the possible failure of fuel, the water section will, with the consent of officers, "approve" water available, but the circumstances must be noted and reported to the sanitary officer of that division. In the promotion or distinction of every officer a record of his successful sanitary administration must be kept

and required. This record shall be produced from the records of the Sanitary Department of the Royal Army Medical Corps and be based on the incidence of water-borne disease amongst the men under his charge and on the sanitary officers' previous reports of inspections of camps and methods, special note being taken as to whether the remedy for any defects was within the power of that officer or whether the responsibility was to be fixed upon a higher officer. There can be no officer in the army, be he officer of Guards or Volunteer corps, who will not welcome this new interest and responsibility in the welfare of his men. It must at once be made absolutely clear that there can be no departure from this principle and that there is no place in the King's service for any officer who might think these duties and responsibilities of minor importance or outside the sphere of his deep interest. In the official reports of the Sanitary Department on the sanitary work of superior and general officers, a record must also be kept of the efforts made by such officers to take into consideration the reports of the Sanitary Department on the sanitary administration of officers otherwise eligible for promotion or distinction. In the possible case of repeated contravention of this principle the Director-General of Sanitation will directly call the attention of the Advisory Board to the matter, who will bring the same before the Commander-in-chief.

*Sanitary officers of the Royal Army Medical Corps.*—Whilst all officers of the Royal Army Medical Corps are to be, as at present, trained in military hygiene that they may be able to advise combatant officers on the best means of applying their new knowledge and instructions to the greatest advantage, a special number of officers of the Royal Army Medical Corps, who have either distinguished themselves in this branch in the army or have been passed into the army on this account, must be regarded as sanitary officers, in the proportion, perhaps, of one to a division. Their duties shall especially be: 1. The education of all officers placed under their care in the methods regarded by the Sanitary Department of the Royal Army Medical Corps as the best to be adopted at the time. This information they should give by printed instructions, lectures, or demonstrations, in such a manner as to enable officers to qualify in this subject either on admission to the army or at the subsequent examinations required at present for promotion. 2. The education, certification, and re-examination of the men of the water section. 3. The education of the men on the disasters resulting from insanitary conditions of camps or water-supply, and the encouragement of the men in a feeling of comradeship in prevention of water-borne disease—their worst foe in war or peace. Practically speaking, the sanitary officer's duties terminate at the declaration of war; if his work of education has not been completed by then, his presence on the battle-field can have but little influence in warding off the coming disaster. If his work has been well done in the time of peace, success will follow his men. The responsibility is now with the officers of all units, they are the responsible executive for the sanitary teaching given. On active service sanitary officers would best be employed in the immediate separation of any suspicious cases of these three diseases, and in assisting general officers in the selection of camp sites. In addition to the sanitary officers of divisions there must be a sanitary officer, ranking with the principal medical officer, on the staff of every army corps and on the head-quarter staff of every expedition or war. There must also be a director-general of sanitation, or chief sanitary officer of the army, who shall be on the Medical Advisory Board, on the Army Board, and on the War Office Council. Sanitary officers shall only deal with questions of preventive medicine. Sanitary officers are not officers of the water section, except when the men of the water section are being trained by them.

*The water section.*—The men of the water section should be specially recruited for intelligence and trustworthiness in the proportion of 2 per cent. of strength. They are to be specially employed men, borne on the strength for one purpose only, to be recognised as men technically trained to provide their corps or unit with "approved" water and to guard it against all the water-borne avenues of typhoid fever. The training of the men of the water section will devolve upon the sanitary officers of the Royal Army Medical Corps, or in exceptional cases on the medical officer of the unit or garrison. The sanitary officers shall also train a reserve of water section men, not exceeding another 2 per cent. of strength. After training and certification the men of the water section shall pass absolutely under the control

of the commanding officer of the corps of which they are to form part, who is directly responsible for the carrying out of their duties, subject to the advice, recommendation, or orders he may seek or receive from the sanitary staff officer. These men shall be taught the responsibility of their work. Their success, as in the case of officers, must be noted and meet with its reward, both in war and in peace. The duties of this section stationed abroad in times of peace I have indicated elsewhere; suffice it to say here that the principle of "approved" water only is to be carried out by them at all stations abroad, and is to follow the men into the bazaars, which are at present largely beyond barrack rules and produce disastrous results. The men of the water section will learn that the technique required for the sterilisation of typhoid or cholera water to be used for drinking purposes is a laboratory experiment, and is not the same thing as preparing hot water for a bath. The serious responsibility of their duties, requiring special recruiting and training, the smartness and rapidity of action required, and the influence and respect they are to command among their comrades, require that everything should be done to give them prestige in the corps or unit of which they form part. The designation "water section," in preference to "sanitary section," has been adopted for several reasons. These men must have no other sanitary duties whatever, and therefore, they are not a "sanitary section."

*Progress and advance.*—Every effort must be made, by offering distinction or reward to officers and men of either navy or army, or to civilians who shall be able to suggest any suitable modification of the methods at any time in force, which shall render the work of this corps more simple, rapid, or effective.

It will have been noted that the scheme endeavours to interest directly every officer and man in the army in preventing the action of their three main destroyers and to bring the highest sanitary teaching to the service of every interested officer and man. It endeavours to avoid adding one ounce to transport unnecessarily and at the same time to make it clear that the general who shall leave that ounce behind is courting disaster and inflicting on himself the absolute penalty of subsequent tons of useless transport. If he deny the soldier that ounce of extra transport he will have to carry as an invalid the soldier himself. I have shown that the remedy for these evils is a campaign within a campaign, to be fought *pari passu* with every step of every unit of the army: that the unseen bacillary enemy is as real and as disaster-bearing as the human foe; and that to take no account of this foe, to under-rate its power, or to trust to the chance of avoiding it, as is the rule in military strategy at present, is to be a quarter of a century behind the times, is futile, and must in the future bring disaster and disgrace on the general who shall exhibit such weakness.

The advantages of this scheme are: (1) total immunity from water-borne disease, which amounts to four-fifths of the mortality and invaliding of armies; (2) the absence of discomfort and inefficiency on the march from minor illness; (3) diminished thirst and discomfort by accessible tea, meat-extract, soup, &c., several times a day, in place of foul water, a biscuit, and late transport; (4) an enormous reduction of transport; (5) great increase in effective strength; (6) the liberation of the officers and men of the Royal Army Medical Corps for care of the wounded by emptying the typhoid and dysentery hospitals; (7) the acceleration of the war and the saving of enormous expense; and (8) the placing of responsibility in the proper quarter for the future, making such subterfuges as "Hospital Commissions" or inquiries an impossibility.

The essentials in this scheme are: (1) a trained water section of 2 per cent. of the strength; (2) the training and education of all officers in sanitary methods; (3) the education and training of the men in its advantages to themselves and their comrades; (4) the appointment of expert sanitary officers; (5) the responsibility of all non-medical officers for the executive sanitary work of camps or units; (6) the responsibility of the same officers for the incidence of water-borne disease—enteric fever, dysentery, and cholera—in their units; (7) the transport of this water section to be sacred, used for no other purpose whatever, largely independent of all other transport (the transport of reserved fuel, &c., to take precedence, if required, of everything except one day's ammunition); and (8) the establishment of a tradition that it is dishonourable and a crime to use any water for drinking purposes not "approved" or allowed.

I now leave the scheme in your hands, anxious that if you

are in agreement as to the essential points and as to the considerable success that might fairly be expected you will express that opinion, as well as any difference of opinion on any minor points. The particular technique at present suggested is likely to be much changed and improved upon in the course of time. The essentials in organisation to which I have referred are likely to be found permanently necessary. I trust, however, that you will agree with me in insisting that the time has come for systematic endeavour to secure for the rank-and-file of every part of our forces in both services, in war and in peace, an "approved" water, and the closure of all other avenues of water-borne disease. It must be remembered that in any great struggle in the future the regular army will only be the trained nucleus of that great force of volunteers, home and colonial, who, desirous to meet the enemy, do not volunteer to suffer uselessly weeks of filthy, neglected, and too often fatal sickness, through being compelled to drink "unapproved" water, when the avoidance of these evils, together with the means to prevent them, can be shown to be a direct benefit to every department of the army in the immediate function for which it has been created.

Among those who took part in the discussion were many who were well qualified to judge of the merits of Dr. Canney's scheme, and with but few exceptions the speakers described it as an admirable one.

The CHAIRMAN then invited discussion, remarking that Dr. Canney's scheme showed evidence of having been carefully thought out. A most important part of the scheme to his (Sir William Broadbent's) mind was the education of officers and men in times of peace in the importance of drinking pure water.

Major R. H. FIRTH, R.A.M.C., professor of military hygiene at Netley, expressed great sympathy with the scheme as a whole, and thought that with further consideration something might be made of it. Its success depended on the whole-hearted sympathy and coöperation of every officer.

Major-General Lord DUNDONALD said that his experience in South Africa led him to the belief that it was impossible to make water safe for drinking purposes by filtration only. It could only be done by sterilising by heat. With that object in view on his return to this country he devised a means of carrying water in vessels which could be used for boiling purposes. When the war broke out in South Africa the arrangements for water-supply to the troops were, no doubt, in accordance with the regulations, but everyone must feel that they were not in accordance with the progress of the year 1900, and if those in power would attend to the advice of men like Dr. Leigh Canney thousands of lives would be saved in future wars. It was impossible to over-estimate the importance of instructing every officer in the army in sanitary work and in the maintenance of camps in a cleanly state. They could not expect the company officer and the colonel of a regiment alone to take an interest in this matter. It must be forced upon them from above.

Dr. J. W. WASHBOURN, C.M.G., said that water was the main agent by which enteric fever was spread, but flies and dust also played a part in its dissemination. They had to provide a pure water-supply, and to see that sewage excreta were properly disposed of. For that purpose there ought to be a sanitary corps to see not only to the water but also that all other sanitary precautions were taken, especially in the case of standing camps, and that corps should be a branch of the Royal Army Medical Corps.

Dr. S. RIDEAL, D.Sc. advocated the use of a chemical bi-sulphate of soda which required 15 minutes to do its work.

Dr. A. CONAN DOYLE had witnessed the neglect of the most ordinary precautions among the soldiers in South Africa and its results. No one had remonstrated. If it was not stretching red tape too far, why should not Dr. Leigh Canney be sent straight out now to South Africa with his apparatus? Let him be attached to one single column and see whether the results would turn out better than in any other column. And why should not Dr. Rideal, who recommended a chemical solution, be sent out, too, and the results of the two treatments be compared. This was not a time for academic discussion. The house was on fire and it was time that they were taking some practical step to put it out.

Brigade-Surgeon-Lieutenant-Colonel MYERS, R.A.M.C., said that the men should be educated to go for a whole day without water. He had trained himself to go a whole day in the hottest part of Africa without drinking.

Major H. A. CUMMINS, R.A.M.C., Brigade-Surgeon-Lieutenant-Colonel W. H. CLIMO, Dr. SCOTT MONCRIEFF, Captain WALKER, R.E., Surgeon-General A. C. C. DE RENZY,

C.B., and Captain DANCE, R.E., also took part in the discussion, which was briefly replied to by Dr. LEIGH CANNEY.

Colonel LONSDALE HALE then summed up in the absence of Sir William Broadbent who had been obliged to leave. His conclusion was that as far as the South African campaign was concerned officers and men had not taken proper precautions to guard against typhoid fever, and therefore the public were beginning to think that these terrible casualties from the disease could not be prevented. As a matter of fact in many cases they should really be classed as "regrettable incidents."

### SCHEME FOR THE ERECTION OF SANATORIUMS FOR THE TREAT- MENT OF TUBERCULOSIS.

THE erection of sanatoriums is now one of the problems attracting the attention of sanitarians and the first step to grapple with the question from a new point of view was recently taken by some of the sanitary authorities of Hampshire. The history of the movement is as follows. In the early part of this year an attempt was made in Portsmouth to erect by voluntary contributions a sanatorium for the treatment of the consumptives of that town, but owing to numerous other calls on the purses of the charitable the project fell to the ground from lack of support. On its becoming evident that this scheme would not succeed it was suggested by the medical officer of health to the sanitary authority that possibly the powers given by the Public Health Act of 1875, for the provision of hospitals for the reception of the sick, might be construed to cover the erection of a hospital or sanatorium for tuberculous patients out of the rates, and subsequently the suggestion was made that it would be cheaper and in many ways more advantageous, instead of erecting a sanatorium for the Borough of Portsmouth alone, to communicate with the various other sanitary authorities of the county of Hampshire, and, if possible, to gain their coöperation in building a joint sanatorium for the treatment of their respective phthisical inhabitants. This suggestion was acted upon and a circular letter was sent to all the sanitary authorities in the county of Hampshire putting the project before them and suggesting that if they approved the principle delegates should be appointed to attend a preliminary meeting to discuss how the scheme could best be carried into effect. As a result 10 sanitary authorities, including nearly all the larger towns of the county and representing a population of 344,223, or 47 per cent. of the total population of the county, met on Oct. 15th, at the Town Hall, Portsmouth. The meeting was undoubtedly a success; the delegates were unanimous in their approval of the scheme, and after passing a resolution, "That in the opinion of this meeting it is desirable for the authorities in the county of Hampshire to unite for the purpose of providing a sanatorium for the treatment of consumptive patients of the county," proceeded to appoint a sub-committee, consisting of a delegate from each authority represented, to draw up a working scheme and to report to the full meeting of delegates. It was decided in the meantime again to communicate with those authorities who had so far not joined in the scheme with a view to obtain their coöperation.

This method of dealing with the provision of sanatoriums is, so far as we are aware, a new departure, and the future development of the undertaking will be followed with considerable interest throughout the country. It is evident that, in the same way as public opinion has enforced the provision of isolation hospitals for infectious diseases, sanitary authorities will, in the near future, be compelled to erect sanatoriums for the treatment of cases of tuberculosis, and it is probable that in this matter public opinion will be considerably stimulated by the resolution passed at the British Congress on Tuberculosis held in London in August last—namely, "That the provision of sanatoria is an indispensable part of the measures necessary for the diminution of tuberculosis."

The 131st section of the Public Health Act under which it is proposed to proceed reads as follows:—

Any local authority may provide for the use of the inhabitants of their district hospitals or temporary places for the reception of the sick

and for that purpose may themselves build such hospitals or places of reception; or contract for the use of any such hospital or part of a hospital; or place of reception; or enter into any agreement with any person having the management of any hospital, for the reception of the sick inhabitants of their district, on payment of such annual or other sum as may be agreed on. Two or more local authorities may combine in providing a common hospital.

It is the last sentence of this section, that giving the power of combination, that the present scheme is more particularly concerned with. It will be remembered that it is under this section that power is gained for the provision of infectious disease hospitals throughout the country. It will be noted, however, that there is nothing in the section limiting its application only to hospitals for infectious disease, but whether the local authorities of Hampshire will find that it is sufficient to cover the provision of a sanatorium remains to be seen. It is unfortunate that although the Act gives local authorities power to combine for the provision of a hospital it does not go on to define the detailed stages to be taken to effect that combination, or on what basis the proportional part of the expense is to be borne by the combined authorities, or how the committee of management is to be elected and what should be the proportional representation of each authority on the committee; and owing to the many jealousies which unfortunately often exist between the various towns and districts in a county the absence of such details will necessitate the greatest caution and care being exercised by the various members of the committee in order to bring the matter to a successful issue. As to the advantage of some such scheme few will have any doubt. It is well known that in hospital erection the cost per bed varies in inverse ratio to the size of the hospital: it is, for example, cheaper for two towns of 1000 population to provide one hospital, say, of 100 beds than for each to erect one of 50; and it would be better for a county to have one sanatorium, or possibly two, for all its various districts than for each to provide a sanatorium for itself. Not only is the cost of erection lessened by union, but still more is the cost of administration and maintenance, for it will be necessary to have one administrative block only and probably a fewer number of medical men, nurses, and attendants. Another point in favour of a conjoint sanatorium is the necessity of obtaining a favourable site. From what we know as to the suitability of sites for sanatoriums it is found that in most counties there are few sites perfectly suitable, but by a combination of the various authorities the very best site in the county may be selected, and to it may be sent all the consumptive patients of that county, whereas should each large urban district have its own sanatorium it would probably have to put up with, not the best site in the county, but the best procurable in its vicinity. Still, again, anyone who has had to do with the procuring of a site for the use of one sanitary authority in an adjoining district will appreciate at once the reduction of obstacles by combination of authorities. Lastly, there is no necessity, as in the case of infectious disease hospitals, to have the sanatorium in the neighbourhood of the town from which the patients are sent; on the contrary, it is most desirable that the sanatorium should be as far distant as possible from any populous part.

In favour of the provision of sanatoriums out of the rates instead of by voluntary contributions there is much to be said. Foremost may be mentioned the fact that a charge may be legally made for each patient, so that patients may enjoy the benefits of the sanatorium without feeling a loss of independence or that they are recipients of charity. There are probably a large number of phthisical patients in the country belonging to the middle classes unable to pay the three to five guineas per week demanded in the private sanatoriums who would willingly pay from 25s. to 35s. per week, which would probably be about the charge made at a county sanatorium. It is not intended to provide a sanatorium purely for the poorer classes, but as all pay rates, so all ratepayers will have a right to the benefits of the institution; the sanatorium would be adapted for all classes and the charges made would vary according to the more luxurious accommodation provided for better-class patients.

Taking all these points into consideration the plan proposed by the sanitary authorities of Hampshire seems a move in the right direction, and we wish it every success. Should it not attain the success anticipated—and it is no use disguising the fact that many and troublesome difficulties will first have to be overcome—it is quite possible that the attempt made by Hampshire may be the means of initiating a system of county sanatoriums throughout

the country. Some such Act as the Isolation Hospitals Act, 1893, which empowers county councils to combine rural and small urban districts for the purpose of isolation hospital provision, but applying to tuberculosis instead of to the infectious diseases enumerated in the Notification Act, and applying also to county boroughs and other towns, would probably greatly facilitate their establishment. It is also probable that the control of such concerns by a central body like the county council would be more likely to avoid local jealousies which form the rock on which so many attempts at conjoint action come to grief.

## Looking Back.

FROM

THE LANCET, SUNDAY, NOV. 16, 1823.

TABLE TALK.

LITERARY BULLS.

A painted vest Prince Vortigern had on,  
Which from a naked Pict his grandsire won.

This celebrated couplet was probably foisted upon Blackmore; for it is said not to exist in any of his works. It is true that this point must remain in some degree uncertain; for who would read all Blackmore's Epics to ascertain it? Malignity, however, is ever diligent; and if he had really written the couplet, its existence would scarcely have been questioned at this day. It would not be difficult to produce genuine instances of almost equal absurdity, from the works of our best writers. Take a specimen or two:—

Eight callow infants fill'd the mossy nest,  
Herself the ninth.—Pope.

When first young Marc, in his noble mind,  
A work t'oulast immortal Rome design'd.—Pope.

Obeys as subjects by thy subjects be,  
But know that I alone am King of me.—Dryden.

A horrid silence first invades the ear.—Dryden.

Nor yet perceived the vital spirit fled,  
But still fought on, nor knew that he was dead.

Every monumental inscription should be written in Latin; for that being a dead language, it will always live.—Johnson's *Life of Pope*.

Turn from the glittering bribe your scornful eye,  
Nor sell for gold what gold can never buy.

These observations were made by favour of a contrary wind.—Tour to the Hebrides.

The last bull reminds us of an old friend of ours, one O'Callaghan, from the sister kingdom, who, as an excuse for not returning to Eton, wrote word that the winds were so adverse it was impossible for the packets to sail.

One of the best practical bulls of this kind, is the following, which is given by Mr. Edgeworth, in his *Essay on this subject*. A gentleman writing a letter in a coffee-house, observed an officer from the sister kingdom, coolly looking over his shoulder, and perusing its contents. He accordingly concluded his letter in the following words; 'I am obliged to break off abruptly, for there is a d—d tall Irishman looking over my shoulder and reading every word I write.' 'You lie, you scoundrel,' said the officer, 'I am not.'

Another bull of this sort occurred recently at the Old Bailey. The officer of the Court upon administering the oath to a deaf gentleman, put his mouth to his ear, and bawled out, 'If you don't hear what I say, tell me so.'

### THE GENERAL MEDICAL COUNCIL: ELECTION OF DIRECT REPRESENTATIVES, 1901.

DR. C. E. ROBERTSON'S ADDRESS TO THE REGISTERED MEDICAL PRACTITIONERS OF SCOTLAND.

LADIES AND GENTLEMEN,—In offering myself as a candidate for the direct representation of medical practitioners in Scotland on the General Medical Council, it is necessary that I should briefly express my views on some of the more important matters before the profession at the present time. This I propose to do as follows:—

*Infamous conduct in connexion with the sale of scheduled*

*poisons*.—This is one of the subjects which stands pre-eminent, on account of the action lately taken by the General Medical Council, at the instigation of the Pharmaceutical Society of Great Britain, in accusing medical men of infamous conduct because certain of their unqualified assistants have been convicted in the public courts of the sale of scheduled poisons. Registered medical practitioners claim exactly the same rights to sell scheduled poisons as do the registered chemists, and they claim no more. These rights are reserved to them by the Pharmacy Acts, and, inasmuch as when the unqualified assistant of a registered chemist is convicted of selling scheduled poison no action has ever been taken against the chemist himself, it reasonably follows that no action ought to have been taken against any doctor in a similar position.

*Increase in direct representation on the General Medical Council*.—I think that the time is ripe for alteration in the constitution of the General Medical Council, and that that alteration should be made by transferring to the general body of practitioners the power to appoint a majority of the members. Further, I look upon it as an unjust thing that the registered dentists, who pay for their registration as we do, and who are amenable to the General Medical Council for their professional conduct, should have no representation whatever on that Council.

*Finance*.—The present financial difficulties of the General Medical Council are well known. In dealing with them it seems fair that an effort should be made to induce all the bodies who send representatives to the Council to bear some proportion of the expense before placing a further tax on medical practitioners.

*Midwives Bill*.—My opinions are at one with the present English candidates on this matter, and I would earnestly support them in their endeavours to prevent the importation into the profession of a lower order of legally qualified and independent medical women.

*The one-portal system*.—I am in favour of the general principle of one-portal system; but the details of the question present many difficulties on account of its interference with the vested interests of the present licensing bodies. The further consideration of this subject must be subservient to the maintenance of a high standard both in the entrance and qualifying examinations.

*Suppression of quacks and other unregistered persons who practise medicine and surgery for gain*.—I consider it wrong that the grave and dangerous evil of "counter-prescribing" by chemists and druggists should be allowed to exist; that quacks, bone-setters, &c., should practise medicine and surgery without let or hindrance; and I maintain that the General Medical Council will not have done its duty until it has asked and received from Parliament power to deal with the suppression of these abuses.

In conclusion, I desire to add that, in the event of your returning me as your representative, I shall carefully study the interests of the medical practitioners in every question that may come before the General Medical Council.

I am, yours faithfully,

CHARLES E. ROBERTSON, M.D. Glasg.

63, Dixon-avenue, Glasgow, Nov. 11th, 1901.

### DR. NORMAN WALKER'S ADDRESS TO THE REGISTERED MEDICAL PRACTITIONERS OF SCOTLAND.

LADIES AND GENTLEMEN,—After mature consideration I have decided to offer myself as a candidate for the position of your Representative on the General Medical Council.

The duties of the Council are primarily with education, examination, and registration.

*Education*.—In this there is much room for improvement. Too much time is devoted to subsidiary subjects, and there is thus less to spare for those of real importance. The subjects of biology, chemistry, and physics should be relegated to a preliminary scientific examination which the student should be required to pass before commencing his medical studies proper. It is, I believe, immaterial whether these subjects are studied at the University or at a secondary school.

Bacteriology is a subject of such immense practical importance that it should certainly occupy some of the space which would thus be provided.

*Examination*.—The examinations are unequal. While in many instances the standard is sufficiently high, in too many it is not, and a more exacting inspection of the examinations should be insisted upon.

*Registration*.—The duties of the Council with regard to

registration consist in admitting names to and removing them from the Register. The Council registers all those who have passed the examinations under its supervision. The subject either of mutual reciprocity with the colonies or of an Imperial Register should be considered.

The removal of a name from the Register is a serious matter, and must only be carried out when there is absolute proof of an offence in the sense of the Medical Act. It is to be regretted that removal from the Register is the only penalty which the Council can legally enforce, but it should be borne in mind that warnings are often efficacious.

As a teacher and an examiner and one in close touch with the teachers of an important medical school I believe I am competent to represent your interests in these matters.

In addition to its main duties, the Council has recently given some attention to matters affecting the general practitioner.

The subject which has attracted greatest interest is that of midwives registration. On that subject my views are very clear and decided. Having been for several years Convener of the Committee of the Edinburgh Branch of the British Medical Association on the subject, I am thoroughly familiar with every phase of the controversy. I hold that no person, male or female, should be registered as an independent practitioner of midwifery, unless duly qualified under the Medical Act. In my opinion the solution of the question lies in the recognition by the Council of those hospitals which have the facilities for training midwifery nurses. These should be allowed to issue certificates of training to their own pupils and to no other. The issue of certificates of competence by private practitioners should be severely dealt with by the Council.

The next question of interest to the general practitioner is that of contract medical practice. I can see nothing essentially wrong in this. A professor accepts his chair and its duties at a fixed salary. Most remunerated appointments are at a similar fixed salary, and I can see no material difference in the contract of a general practitioner to attend a certain number of patients for a fixed sum per annum. The crux of the matter lies in the amount of remuneration, and I was very much impressed by the attitude of the representatives of the friendly societies who met with a committee of the Council of the British Medical Association. While declining to agree to any wage-limit they were ready to admit that the general rate of remuneration was too low and to use all their influence to raise it.

The position of the parochial medical officer in Scotland should be made more certain. The medical officer to a union district in England is appointed by, and is only dismissible by, the Local Government Board, and it is only just that the Scottish parochial medical officer should have the same security of tenure.

A good deal of attention has recently been drawn to the question of the dispensing and sale of drugs. On this matter I desire to make my position perfectly clear. In many districts it is absolutely necessary, and in others it is a long-established custom, for medical men to dispense the medicines which they prescribe for their patients. To this no possible objection can, it appears to me, be urged. The keeping of open shops for the sale of drugs, and even of patent medicines, to all and sundry is on quite a different footing and should not, in my opinion, be encouraged. What the Council has done is only to uphold the law which provides that poisonous drugs shall not be sold by unqualified persons. With their action I entirely agree.

There are many other matters of general medical interest, such as the suppression of unqualified practice, which, though of great importance, are outwith the province of the General Medical Council. For dealing with them, amendment of the present or a new Medical Act is requisite and desirable. In it there will necessarily be some reform of the Council, and probably some alteration of its composition. The number of Direct Representatives should be increased, some of the bodies which at present send representatives should cease to do so, and thirdly, the representatives of all the universities and corporations should be elected by a wider constituency than they are at present.

I think it is only right that I should state (for the information of those to whom I am not personally known) that I have considerable experience of affairs. I have been for several years a member of the Council of the Edinburgh Branch of the British Medical Association, I am now serving my second term as a member of the Central Council of the Association and its Parliamentary Bills Committee, and I am

a member of the Finance Committee of the General Council of the University of Edinburgh.

My own personal experience in general practice has taught me the numerous difficulties associated with it, and the fact that I am no longer a general practitioner has not made me any less appreciative of these, any less anxious to see them removed, or I believe any less able to work for their removal.

If the profession in Scotland entrusts its interests to my care, I shall do my utmost to merit the confidence.

I am, Ladies and Gentlemen, yours obediently.

NORMAN WALKER.

We have also received an address delivered by Dr. C. W. Hayward at the Liverpool Medical Club on Wednesday evening, Nov. 6th. We cannot publish this address because it is in our judgment libellous. We make this explanation that it may not be thought that any other reason has persuaded us to deprive one of the candidates for election to the General Medical Council as a Direct Representative of an opportunity of addressing the constituency.

CANDIDATURE OF MR. GEORGE BROWN AND MR. GEORGE JACKSON.

*Manchester and District Committee.*

At a meeting of practitioners held on Friday afternoon, Nov. 8th, at the Deansgate Hotel, Dr. John Watson of Ardwick being in the chair, it was resolved to form a committee to take steps to secure the election of Mr. George Brown and Mr. George Jackson as Direct Representatives of the profession on the General Council of Medical Education and Registration. Already 50 representative general practitioners have joined the committee and the honorary secretary has received a large number of promises to support these two candidates. Dr. James Brassey Brierley is the chairman of the committee and Mr. G. H. Broadbent is the treasurer, while Dr. J. Percival Brown has undertaken the honorary secretaryship.

THE EAST SUBURBAN MEDICAL PROTECTION AND MEDICO-ETHICAL SOCIETY.

A MEETING under the auspices of the East Suburban Medical Protection and Medico-Ethical Society was held at Stratford, Essex, on Nov. 8th, under the presidency of Dr. F. J. Smith, to hear addresses from the candidates seeking election as Direct Representatives to the General Medical Council.

Dr. SMITH said: It has been thought that the present occasion would be a good opportunity for the gentlemen who are wishing to represent the profession on the General Medical Council to come down and express their views, and I have to draw the attention of those would-be members who are before us to-day to the fact that inasmuch as all the candidates have expressed a wish to come the Executive Council have decided, as the only way to get the meeting finished within a reasonable time, that all the speakers who are candidates should have roughly from 15 to 20 minutes each in which to make their speeches. It will be in the power of any person present here to ask the candidates questions or to make observations on those speeches. If observations are made it will be necessary to restrict their length to two or three minutes. I trust you will bear with me if, from the chair, I make a little note of the time and remind you when the period has expired. I will first read you a letter from Dr. Glover—I presume it is written to Mr. F. E. Bromley. It runs as follows:—

"I think you know that I am medically prohibited from attending meetings at present. Therefore, I have reluctantly resolved, in deference to my friends, medical and other, to withdraw from the present contest. May I ask you to state this fact and to say to the meeting at Stratford how sorry I am not to be able to be present. I am announcing my determination to my constituents in the medical journals of this week.—With very kind regards, believe me, yours very truly, J. G. GLOVER."

I will say nothing more now, except to ask Mr. Victor Horsley to tell us anything that he wishes. Of course, he stands on a rather different platform from the other gentlemen, because he is not up for re-election, but remains a member of the General Medical Council for another year.

Mr. VICTOR HORSLEY said: I would preface anything I have to say by thanking you for electing me to the General Medical Council four years ago, and I also take this opportunity to report to you that undoubtedly things are much better in the General Medical Council than they were four years ago. Distinct progress has been made in the Council on many salient points, notably in the so-called midwifery legislation, in matters of medical etiquette, and also to a less degree on the question of preliminary medical education. We have to look back, then, on a term which has been a fairly successful one, from our point of view, in regard to medical reform. As to the future, it does seem to me that unless we can secure a total revolution in the constitution of the Council we cannot hope to carry any measure in the Council itself under the four or five years' term of office which your Direct Representatives actually hold. We are all agreed that we must have a new Medical Act, but the General Medical Council, owing to its present constitution, is incapable either of really influencing the Government or of supporting in any way a real Act of medical reform. Where, then, is the out-let

pressure to come from which is to bring about this consummation? There is only one organisation which can supply that, and that is the British Medical Association. The present time is a critical one in the history of medical reform—in other words, it is a critical period for the British Medical Association. At the Cheltenham meeting of the British Medical Association the party of reform achieved a very great victory by carrying proposals of the Constitution Committee to revolutionise the British Medical Association, but unless you attend the statutory meetings which will be held next month—I suppose in Exeter Hall, which is a central place—to approve of the new articles and by-laws which must of necessity pass before that scheme can work—unless, I say, you attend that meeting in full force there is just a chance that the whole thing might fall to the ground, because the Companies Acts require that a three-fourths majority must be obtained in order to alter articles of association.

Dr. SMITH: If no one has any question to ask Mr. Horsley I will call upon Mr. George Brown to address you.

Mr. GEORGE BROWN: Mr. President and Gentlemen.—My views of medical reform must be familiar to most of you, and I think it is generally known that Mr. George Brown is, as my friend and colleague Dr. Glover described me at Cheltenham, "an ardent medical reformer." I think that ought to be sufficient. I will leave the general question of medical reform alone, simply saying that I shall be happy to answer any questions or remarks at the end of the meeting from anyone who requires further information. But before taking up the present election, which is the matter that we meet together to-day particularly to discuss, I should like to express my great regret at the cause which has prevented the appearance of Dr. Glover on this occasion. I had hoped to meet him here, and that he is absent on account of ill-health must be a matter of regret to all of us; for, after all, although of late I and many other medical reformers have not been able to agree with him, particularly with regard to the midwives question, I think we must all agree that he has done good service to medical practitioners. He has had 15 years of hard work on the General Medical Council, and under those circumstances I think he is entitled to the thanks and gratitude of the profession. As one who has supported him for years I feel grateful for the way in which he has for many years advocated our cause, and it was not until the rupture took place on the midwives question that I was obliged to tell him, as I did some 10 years ago, that unless he could bring something better forward I could not support him. I was a strong supporter of Dr. Glover's, but at the last election I felt it was absolutely necessary, if possible, to replace him by another candidate, one who was more in touch with the feelings of the rank and file of the profession. I may say that the feeling in regard to replacing him was not only my own but was almost the unanimous feeling on the part of the associations with which I am connected, especially the Incorporated Medical Practitioners' Association. And at the last election the members of that association nominated my friend, Mr. George Jackson of Plymouth, as one who was in perfect line with myself, not only upon the midwives question, but upon all other questions of medical reform. Mr. Jackson came forward almost at the eleventh hour, another candidate whom we had hoped to nominate for that election having retired, as it were, from the list. The result was a surprise to everyone. He had within a few hundreds as many votes as Dr. Glover—that is to say, over 4000—and he was highest on the list of unsuccessful candidates. Since that time Mr. Jackson has become very much better known. He had at that time the solid support of the South of England and I think also of all Wales, because the medical men there know him as a general practitioner. He has been a Poor-law medical officer, and he is a public vaccinator at the present time, and is in the active practice of his profession at Plymouth. Therefore he is an ideal man to represent us on the Medical Council. Since that time he has become personally much better known to the constituency generally; he has been present at public meetings in London on several occasions. He has travelled with myself from Plymouth to Newcastle in the North of England and done 1400 or 1500 miles—or perhaps more than that—in the last fortnight in prosecuting his candidature and endeavouring to serve you. In doing that he has shown his enthusiasm in the cause. For if Mr. Jackson is elected it means a tremendous sacrifice of practice. I have found that out by experience. I have been obliged to relinquish a certain class of work which runs into hundreds of pounds. My income has been very much reduced by representing you on the General Medical Council. But I do not mind that in discharging a public duty and I hope to carry it out. Now, why do I ask you to support my friend Mr. Jackson—and in doing so myself as well? Because we are general practitioners. The three Direct Representatives whom you now have the privilege of sending to the General Medical Council were granted in response to an urgent requisition from the societies representing general practitioners. Some 15 or 20 years ago I was secretary of a medical defence association for 10 years and this direct representation on the General Medical Council was the first item in our programme or platform. I had the honour of going with deputations to the Duke of Richmond and the Marquis of Ripon to represent on your behalf that we wanted the general practitioner element to be represented on the General Medical Council. In accordance with those frequent petitions and memorials which were sent the Government granted three Direct Representatives in the Bill of 1886. When that Bill was passed it was said that the Direct Representatives ought to be taken from the general practitioners of the country. But, unfortunately, the general practitioners were not prepared; we could not find anyone who was willing to sacrifice the time and incur the enormous expense which a fight of this kind meant. To appeal to 25,000 constituents means an enormous expense. In regard to that I should like to quote some remarks of the late Sir Andrew Clark of Cavendish-square who, when he was asked who should be the Direct Representatives, wrote as follows to the *British Medical Journal* of Sept. 25th, 1886:—

"And now that the interests of 'consultants' and of teachers, of corporations and of universities, of the Crown and of the people, are already more than adequately represented in the General Medical Council; now that the right of direct representation therein has been conceded to the repeatedly renewed claims of the general practitioners, it seems both natural and proper that they should themselves exercise the suffrage in their own behalf; that they should elect as their representatives genuine working members of their own body, men who, commanding the confidence of their brethren, are familiar with the

history of our struggles for medical reform, who understand in education and polity the points which have yet to be won, who are zealous in adding to the value of the services which we render to society and the State, and who, in spite of every kind of opposition, will remain loyal to the highest interests of the profession. If this principle of election is disregarded, and if all the representatives are chosen from outside the body of general practitioners, it will seem, at least to me, that the fight has been fought, and the battle won, in vain."

I adopt these words from Sir Andrew Clark and I say that unless you send general practitioners to the Council, no matter where you get them from—the East-end, or Devonshire, or Cornwall, or Lancashire, the district from which Dr. Woodcock hails—unless you send general practitioners to the General Medical Council you will not make progress with medical reform. The few remaining years I have to give to medical reform and medical politics will be devoted to carrying out that principle among general practitioners. I value the services of Mr. Victor Horsley upon that Council as much as any man can do. As I said at the Newcastle meeting, my only regret is that he is not a general practitioner; he does not know our personal experiences, our trials and feelings and our difficulties, and he has to repeat them second-hand, though that is excellently well done. I do hope, gentlemen, you will bear this in mind in the future. There is another matter, and that is, I ask you not to lack interest in this coming election. I have tried again and again whilst a member of the Council to get my colleagues to consider the principle given by Act of Parliament to have one additional representative for England. But that has been refused by an overwhelming majority. What is the sole reason why this has been refused by the Council? They say, "because the medical profession does not take an interest in the representation at the present time, they do not vote for the candidates when the election comes round. Actually only about 50 per cent. take the trouble to vote." Do not let that fact be put before us again. Do not let them say, "Mr. Brown, or Mr. Victor Horsley, or Mr. Jackson, it is no good asking for more direct representation; let the profession appreciate the members they have got." That is the reason I ask you not only to vote yourselves but to go round and ask your neighbours and friends, "Have you got your paper? Go and fill it up and send it off." Remember that numbers count in a matter of this kind. Turning to another point, you perhaps know that my right to claim your suffrages has been somewhat contested. I think it has been done on two grounds. First, and a view which has been made a very great deal of, it is because I happen to reside in London. That, I suppose, is my misfortune. I wish I could have lived in the country and enjoyed fishing and shooting and so on. But I am in London. I have anticipations more or less in regard to the future as to being able to take my ease in the country, but at the present time I must work, and work hard, in London as a general practitioner. If in 1896 my residence in London was not considered a disqualification I want to know why it is to be brought forward now as a disqualification to represent you. My politics have not changed and therefore I think I can appeal to you to support me. I admit it does seem rather out of the regular and proper order of things that the three Direct Representatives are all residing in London. But who is responsible for that? We might say it is primarily the fault of the electors. But let us take our minds back to 1897 when Dr. Rentoul of Liverpool resigned. At that time Dr. Glover and myself, two Londoners, represented you on the Council. Dr. Woodcock, at Cheltenham, if I remembered rightly, stated: "We in the north claim a representative, we ought to have a representative in the north." I say, have a representative in the north certainly if the right man is forthcoming in accordance with your principles. But if that is Dr. Woodcock's opinion now, why was not it his opinion in 1897 when the Lancashire and Cheshire Branch met to consider who was to be nominated to take the seat of Dr. Rentoul who resigned? They looked all round and discussed the *pros* and *cons* of every practitioner in Manchester, and there were many there, including my friend Dr. Woodcock, who would have been very happy to represent Lancashire at that time. Dr. Woodcock and his friends supported Mr. Victor Horsley, and threw over Dr. Rentoul and the north altogether, and they put in a third man who was a Londoner. I say, if we have too many Londoners, let the last one, the one who came last, give way. Do not come upon poor George Brown, who has fought his seat for 15 years; do not have him out because he is unfortunately a Londoner, because if that is a disqualification I will live anywhere I can get. Do not, for goodness' sake, throw that up at me and pick me out and take me out of an office which you put me in. I appreciate the honour and I have tried to serve you to the best of my ability. I admit my failings; I admit, as Dr. Glover said at Cheltenham, that sometimes George Brown happens to be in that unfortunate position in which he cannot get a seconder. That is because on the last May-session of the General Medical Council I brought forward a resolution based on the memorial of the Middlesbrough and Wigan medical unions and numerous letters from Durham and Newcastle and other places in the north urging me to bring forward a resolution to make it a matter of unprofessional conduct for a man to associate himself with a touting or medical aid association. I did not draft the resolution; it was sent to me from the North of England. A memorial was sent to the Executive Committee of the General Medical Council at the same time urging them to bring it forward. I complied with the mandate of my constituents, but no one would second my resolution. I say more shame to the representatives, especially to the Direct Representatives, that they did not second that resolution. I know the answer is that it was *ultra vires*. I have, however, no doubt whatever that legal advice had been taken as to whether my resolution was in order, and, at any rate, its appearance upon the agenda of the business for that day, showed *ipso facto* that it was in order and a thing which could properly be discussed. Moreover, the Lord Chief Justice in the Appeal Court said that any matter of medical discipline came within the cognisance of the General Medical Council if they chose to discuss it, and that they could make their own rules as to the conduct of medical men. There have been plenty of those cases. Take the celebrated Irvine case. This was practically a case of a touting institute; there were others which were on all fours with it, but that was a case of a consultant. When it is a case of a general practitioner it is pitched out. But as it was a consultant and the matter was brought forward by Dr. Saundby of Birmingham it was carried through. But when I brought forward my case the Council said, "Out with it," and I could not get a seconder for it. But, is that a reason why I should be sent away from the Council? I say

No; it is a reason why you should send me back again. But if you do send me back again to propose resolutions of that sort I hope you will send also someone there who will second the resolution. And if you return Mr. Jackson it shall never be thrown up against me that I proposed resolutions to the Council of such an impracticable character that I could not get a seconder.

Dr. SMITH: As no one asks any questions I take it that you all agree with Mr. George Brown's views. I will now call upon Mr. Jackson to address you.

Mr. GEORGE JACKSON: Mr. President and Gentlemen.—I do not propose to say anything about the personal question of my being a general practitioner; Mr. Brown has explained that for me. He has told you that I am in general practice and I hold appointments such as general practitioners hold, one being that of public vaccinator. In addition to that I was for many years Poor-law medical officer and have filled the various appointments which medical men usually have. I think, therefore, I may claim that I very fairly understand where the shoe pinches as far as the general practitioner is concerned. Of course, a man going to the General Medical Council should represent all classes. There is no doubt about that. At the same time the Direct Representative should represent more especially the general practitioner because the consultants may be said to be more especially represented by those who represent the corporations, and as a rule one may say that corporation representatives are consultants. So I think that Direct Representatives should certainly be considered, more especially representatives of the general practitioners. As I have said, I simply claim that I am one of the general practitioners. You have all heard Mr. Brown, and he really gives my views pretty well, but I will just make a few remarks to amplify them, and I will take *seriatim* the points which I have put down as, in my opinion, the most necessary. To begin with, we must have some reform of the Medical Acts, and before you begin to reform the first step will be to reform the Council itself. There are many points in which the interests of the corporations and the interests of the general practitioners do not agree, and, in addition to this difficulty, the consultants who represent the corporations are not in touch with the general mass of general practitioners as they do not know where their difficulties lie. My scheme for reforming the constitution of the Council would be to limit the numbers of the representatives of the corporations. Perhaps it might be done by grouping the Royal Colleges of Surgeons of England and Physicians of London and the Apothecaries' Hall of London, so that instead of three representatives for those bodies they should have one. So also with regard to the Universities of Oxford and Cambridge; they might be grouped and then there would be more room for Direct Representatives. Then the number of representatives might be reduced. 25 would probably be sufficient—that is to say, 15 for England and Wales, five for Ireland, and five for Scotland. Then the Direct Representatives should be for different districts, so that it should not be necessary for, say, Dr. Woodcock to come from Manchester or for me to come from Plymouth to address medical practitioners in London. One cannot possibly be in touch with 23,000 medical men. It is absolutely impossible; whereas if the country were cut up into divisions we could more easily become acquainted with the different parts of our divisions and be more in touch with the constituency. I might say, as very often is the case, the Colonies show us the way. In Canada there are 18 Direct Representatives and 16 representatives for corporations, and, if I am not misinformed, those 18 represent various districts; they are not elected by the whole mass of the medical men resident in the Dominion. So I think we may in that respect take a leaf out of the book of Canada. Of course, with reform of the Medical Acts there will be other points which special attention should be paid to. One would be the extreme importance, in whatever Medical Act is passed, of making the General Medical Council supreme in matters relating to education. At the present time they are not. They can only recommend; they have no power to compel. At the present time, as probably you have read, there is a deadlock between the Royal College of Surgeons of England and the Royal College of Physicians of London and the Council on that point. The Council said five years was to be the time requisite for anyone to acquire the necessary knowledge to become a medical practitioner. The Colleges assented to it, but they tried to take away with one hand what they gave with the other by saying that the first year may be passed by a lad at a higher grade school or technical school and that it should not necessarily be five years at a medical school, as the Council intended. The Council also requires more power to deal with other subjects that Mr. Brown referred to—that is to say, the holding of appointments in connexion with tutoring institutions. They have passed resolutions disapproving it, but they have not been able to declare it infamous in a professional respect. They also require to have power to deal with men who represent themselves to be medical men by subterfuges, such as a man putting up a brass plate and calling himself an aurist, and another, such as I have in my mind at present, calling himself an oculist. No one can touch him because he does not claim that he is a physician or a surgeon; he is not on the Register and he does not profess to be, but he deceives the public all the same. There are other things which the Council can deal with, but there again they are hampered by not having complete power to compel; for instance, I think it would be very desirable if the standard of entrance into the medical profession were raised. Dr. W. Gordon of Exeter has a paper about it in the *British Medical Journal* this week in which he goes into details and shows numerous holes which have power in the matter. The General Medical Council itself should institute an examination in preliminary subjects, which should include English, English literature, especially various English subjects, one modern language, and such subjects as chemistry and physics. There ought to be a uniform examination for entrance into the medical profession, to be held at different centres at such times as might be convenient, and the age of entrance should be 17 years, whereas at present it is only 16 years. That would bring the student up to the age of 22 years by the time he became qualified, which is quite young enough for a medical practitioner. That would be a very important reform and that may be done without any further Act. So much for entrance into the medical profession, and it will be as important to provide that there should be a one-portal system for qualifying. The professional examination should be of a uniform character. It would be open to anyone who wished to obtain degrees or ornamental diplomas afterwards to do so, but let there be one standard examination for the three kingdoms.

No doubt that question would raise most strenuous opposition on the part of the members of the Council who are representatives of corporations. I come now to what unfortunately is a very burning question, and one upon which there is a good deal of difference of opinion, and that is the midwives matter. It seems to me to be wicked to attempt to legalise any old woman who can produce a certificate to say she has attended midwifery cases for two years. They would not do that for medical men. When the first Act was passed in 1856 there were certain medical men who had no qualifications whatever, but were placed on the Register because they had been in practice since 1815. These people, however, propose to admit every old woman who has been doing any midwifery. That is monstrous, and I should be strongly against any attempt to register persons of that class, and I have always been so. My own opinion is that the question is better met by a Bill to register all nurses, who should have at least three years' training, and that those who wish to be obstetric nurses might be so, but that their work should be done under the control of the medical men. It has been my fortune, or misfortune, to be a Poor-law medical officer years ago, and I found very great difficulty in treating to the satisfaction of myself or with good to the patients very many cases which came under my care, because, although the law insisted upon my being there it did not insist on there being any nurses. I think that providing the nurse is for the poor even more important than providing the medical man, to see that sanitary regulations are carried out and the instructions of the medical man also. I cannot see why the plan might not be made universal all over the country, as I believe it is in a place called Saddleworth, in Warwickshire, where the guardians provide nurses, and if possible the people pay for them afterwards and thus have the nurses on loan. And then the nurses come strictly under the control of the medical men and they do not act independently, especially in midwifery cases. I think that if a Bill could be drafted on those lines it would be a good thing, and I think it would be a very good thing if such an Association as the British Medical Association, to which as Mr. Horsley has said we must look to make these reforms, were to draft a Bill to be introduced into Parliament as a competing Bill with the Bill which has been before the House. In the last paragraph of my address I have said: "I have assisted in the work of establishing the Three Towns (Plymouth, Devonport, and Stonehouse) Provident Dispensary in conjunction with the branch of the Incorporated Medical Practitioners' Association, which works on the principle of a wage-limit, the management being in the hands of the members of the staff." That, I take it, is the way in which the club system might be combated. Medical men might, as they have done at Eastbourne, form provident dispensaries on those lines. But if they allowed that dispensary to drift into the hands of a lay committee who sweated the medical men I should be against it. As you know, the various large societies, such as the Oddfellows and the Foresters, will not discuss the question of a wage-limit. The only thing would be to say that if you will not have a wage-limit you must pay us a great deal more so as to meet that objection.

At the conclusion of Mr. Jackson's address Dr. Smith complained that a youth, aged about 18 years, who had matriculated with a first-class at London University, had, nevertheless, been refused registration as a medical student by the General Medical Council, only on the ground that he did not pass in one of the modern languages.

Dr. SMITH then called on Dr. Woodcock to speak.

Dr. S. WOODCOCK: Mr. Chairman and Gentlemen.—With regard to the things which are of immediate importance, I think the question of law between the Royal Colleges and the General Medical Council is one of great importance. I agree with Mr. Jackson that the General Medical Council are not in possession of a legal right to enforce their conditions upon the Royal Colleges. The fact is that at the time the General Medical Council was established they voluntarily surrendered the right to determine themselves what should be regarded as necessary before the student could be registered. The arrangement answered fairly well while there was a sort of unanimity existing. But the Royal Colleges not having the number of candidates which they think they ought to have are trying to make arrangements which, as Mr. Jackson says, enable a boy to spend a certain time at school before his registration which shall be reckoned in the five years' curriculum. I think that it would be a most unfortunate thing if that were done and that we must hold on to the five years' curriculum after registration. With regard to the conditions under which a boy or young man can become registered as a medical student, I agree with the suggestions made by Dr. Gordon and with the series of resolutions passed at the Council of the British Medical Association, of which I happen to be a member. I think 17 years should be the minimum age for commencing medical study, and I think it would be of the utmost importance, if it could be done, that the General Medical Council should establish some uniform examinations which could be held simultaneously at various centres, and that there should be one portal of entrance to the avenue which leads to professional life. With regard to the question of medical aid societies, it appears to me that the General Medical Council has no power to issue any sort of general edict which will prohibit men from accepting appointments in connexion with these associations, but if local organisations can prove that a man has been, or is, connected with an association of this kind which is guilty of touting or advertising the Council is prepared to deal with a man under those circumstances. I think that is satisfactory and, as has been pointed out, it was satisfactory in the case of Dr. Irvine. Again, a man may, in private practice, introduce himself to the public by advertising and issuing handbills, and yet that is not noticed. Now, with regard to the midwives question, I am entirely opposed to registration of midwives as independent practitioners, and I have from the first opposed people who have advocated legislation on the lines suggested by what is called the Midwives Committee. In dealing with this question one has been forced to this conclusion, and it was forced upon me by advice given to me by Members of the Houses of Parliament. You ought to have some alternative scheme. It is no good your standing by and saying you do not approve of this. What do you approve of? I was connected with the Parliamentary Bills Committee of the British Medical Association, and the late Mr. Ernest Hart, who was a very astute man and had large experience of Parliamentary work, requested that a sub-committee should be appointed, and of that Mr. Horsley was chairman and Mr. Brown was a member as well as myself, and it was suggested that we should deal with this question and that we should draft an alternative scheme. We did this,

but we did it in a hurry and, like most things done in a hurry, it was not done well. We said, first of all, that the women should be called obstetric nurses or midwifery nurses, that nursing duties should be imposed upon such nurses, and that their functions should be strictly limited. We had a most rigid appendix added which indicated the conditions under which the nurse was to call in medical aid. I now think that we should go further and that we ought to have some sort of legislation which shall secure the attendance of a registered practitioner in cases of confinement. But I have not seen any other alternative scheme which has been good in my judgment. There was a scheme suggested by Dr. Bedford Fenwick when Mr. George Brown was connected with the *Medical Times and Hospital Gazette* and that scheme was published. But there was this significant comment in that paper to which I have alluded, something which aroused my suspicion: "It appears to us that the consequence would be that many medical men would gladly employ nurses so efficiently trained in attendance upon their poor and parish patients, knowing that such parturient women would therefore receive every care and attention, and in the event of any abnormality, showing itself medical assistance would be immediately summoned." This is imposing the responsibility of diagnosing an abnormality on the nurse or midwife; she was apparently to determine when a medical man was to be called in. This was very much like the reintroduction of the unqualified assistant in petticoats. What has been alluded to as occurring in Saddleworth goes a little further than that. I should like to read you what is called a draft scheme, merely suggestions from the Manchester Medical Guild. It is a very difficult thing making a suggestion in drawing up an Act which is likely to prove acceptable to Parliament. The preamble is that in view of the fact that the high mortality and morbidity amongst parturient women and the newly-born in the poorer classes are undoubtedly due to their being attended by ignorant untrained women and their not having the services of fully-qualified practitioners, the committee are of opinion that legislation is urgently required with the sole object of putting within reach of the poorer classes the assistance both of trained nurses and of qualified medical practitioners. The scheme is that obstetric nurses should be adequately trained and registered, and that they should be employed by the local authority and should have facility for calling in any medical man in the neighbourhood and that he should be paid by the State. I think that the State should make provision for the adequate remuneration of the medical men who are expected to assist women of this kind—whether these women practise as at present in an unfettered sort of way or whether some scheme is introduced whereby they should be registered in some way. I think strongly that local committees should be formed all over the country for the local administration of the scheme, that each local committee should engage one or more registered obstetric nurses, and that they should issue to each suitable certificates and instructions. The only point upon which I have a strong objection to this scheme is this, that the woman who is attending the case determines what practitioner shall be called in. I do not think it is right that these women should be able to attach themselves to one medical man and that it should be said that Dr. So-and-So follows Mrs. So-and-So. I think every patient should decide what practitioner shall be called in to her case. Let us in any case look at the matter in a practical way; let us have a scheme whereby the safety of the public shall be secured and the interests of the profession protected, and to which it may be likely that Parliament will lend an ear, and then we shall have some influence in guiding the legislation which may take place in the near future.

A discussion followed, in which Dr. SMITH, Mr. F. E. BROMLEY, and Mr. R. F. TOMLIN took part, and Mr. BROWN and Dr. WOODCOCK replied, Mr. JACKSON having been compelled to leave early for the purpose of returning to Plymouth. Mr. Brown denied his responsibility for the article about midwifery nursing in the *Medical Times and Hospital Gazette*.

The meeting terminated with the usual votes of thanks to the President (Dr. Smith) and to the speakers, which were suitably acknowledged.

## SANITARY AFFAIRS AND THEIR ADMINISTRATION IN WEYMOUTH.

CONSIDERABLE discussion took place in our columns a short while ago concerning the use of isolation hospitals in dealing with scarlet fever and the advantages which these hospitals afford both in safeguarding the community against the disease and in benefiting the individual patient. As we then insisted, much depends upon what is meant by isolation in hospital and how it is utilised. A report to the Local Government Board by Dr. R. D. Sweeting, affords a striking example of what to avoid in this matter. In Weymouth from February, 1900, to March, 1901, 168 cases of scarlet fever were notified, and of these no less than 116 were removed to hospital. The hospital in question belongs, not to the Town Council of Weymouth, but to the Weymouth Port Sanitary Authority, which undertakes to receive cases from the town on certain terms. It contains four wards of six beds each, and an observation ward intended for one bed—25 beds in all. Into this hospital in December last as many as 43 scarlet-fever patients were newly admitted from Weymouth, while cases were also being taken from outside districts, with the result that at one time 72 patients were crowded into the wards and nurses' rooms, and children were packed two in a bed. The staffing of the hospital was altogether inadequate. The caretaker's wife was paid by salary, out of which it was her duty to provide nurses, and the result of this amazing

arrangement may be guessed. Only one trained nurse was engaged, the rest of the "nursing staff" being merely amateur helpers. It is scarcely surprising that the condition of the hospital in these circumstances became little short of a scandal. Parents, moreover, were required to undertake to repay the cost of the maintenance of their children, and the nature of the demands made for this purpose gave rise to much dissatisfaction. An establishment charge of 10s. 6d. a week was made for each patient and in addition the food was in each case charged for in separate items by the caretaker, who sent separate orders to each tradesman each day for each patient. Patients' friends were allowed to visit the hospital at will, and these visitors in several instances appeared to have contracted scarlet fever. At least four patients were sent home while still desquamating and "return cases" resulted. The extraordinary part of the story is that all this time the most strenuous efforts were being made by the medical officer of health of the borough to compel every notified case of scarlet fever to be "isolated" in this hospital. Justices' orders for compulsory removal were sought and obtained, and in better-class houses the medical officer went so far as to inform the householders that unless they consented to the notified scarlet fever case going to hospital it would be necessary for him to insist on the dismissal of the domestic servants. In this matter it is quite clear that zeal was allowed to outrun both authority and discretion, and it is not surprising that as a result both the profession and the public in Weymouth have made a determined protest. As Dr. Sweeting points out, it is to be feared that it will be a long while before the educated classes of Weymouth will recover their faith in hospital isolation, and hence the task of establishing a satisfactory municipal hospital for Weymouth will be very difficult. A sanitary authority that can tolerate such a state of things is hardly likely to be found doing efficient work in other directions, and this view is confirmed by the account which Dr. Sweeting gives of the sanitary condition and administration of Weymouth. The town council appears to have been deaf to representations about insanitary house property and to take no care in the supervision of the building of new dwellings. Defects of house drainage are reported as being common, the system of collecting refuse is unsatisfactory, by-laws and regulations as to slaughter-houses, lodging-houses, and dairies are not enforced, and the work of the inspector in the sanitary department is stated to be unsatisfactory in many respects. A watering-place which is largely frequented by visitors has an exceptional obligation to perfect its sanitary organisation, and Dr. Sweeting's report will hardly encourage careful people to stay at Weymouth until substantial reform is assured.

## ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

A QUARTERLY meeting of the College was held on Nov. 5th, Dr. FRASER, the President, being in the chair.—The PRESIDENT communicated a letter which he had received from the Secretary of State for Scotland in acknowledgment of the message of condolence sent by the College to His Majesty the King on the occasion of the death of the Dowager Empress Frederick of Germany, and a similar acknowledgment from Count Metternich in response to the message sent to the German Emperor.—The PRESIDENT referred in sympathetic terms to the loss which the College had sustained through the death of two Fellows of the College—Dr. John Connel and Dr. James Foulis.—Dr. David Graham, M.R.C.P. Edin., was admitted by ballot to the Fellowship of the College, and the following candidates were admitted to the Membership of the College after examination: Harold Sherman Ballantyne, M.B., C.M. Edin.; David Whiteside MacLagan, M.B., Ch.B. Edin.; and Guy Verney Fletcher, L.R.C.P., L.R.C.S. Edin.—By vote of the College Richard Wallace was deprived of his licence to practise as granted by the College and of all his rights and privileges as Licentiate.

DRAINAGE OF FALMOUTH.—An inquiry was held at Falmouth on Nov. 7th by Mr. E. A. Fawcett of the Local Government Board with regard to the application of the corporation to borrow over £18,000 for sewerage purposes.

## VITAL STATISTICS.

## HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6554 births and 4336 deaths were registered during the week ending Nov. 9th. The annual rate of mortality in these towns, which had been 16·7 and 17·6 per 1000 in the two preceding weeks, further increased last week to 19·7 per 1000. In London the death-rate was equal to 19·4 per 1000, while it averaged 20·0 per 1000 in the 32 large provincial towns. The lowest death-rates in these towns were 11·0 in Wolverhampton, 12·6 in Plymouth, 13·8 in Derby, and 14·2 in Leicester; the highest rates were 25·3 in Blackburn, 25·9 in Manchester, 26·1 in Salford, and 26·7 in Sheffield. The 4336 deaths in these large towns last week included 442 which were referred to the principal zymotic diseases, against 468, 398, and 371 in the three preceding weeks; of these 111 resulted from measles, 88 from diphtheria, 85 from diarrhoeal diseases, 51 from scarlet fever, 50 from "fever" (principally enteric), 41 from whooping-cough, and 16 from small-pox. The lowest death-rates from these diseases were recorded in Bristol, Leicester, Derby, and Huddersfield, and the highest rates in Burnley, Blackburn, Preston, and Sheffield. The greatest proportional mortality from measles occurred in West Ham, Norwich, Oldham, Blackburn, and Sheffield; from scarlet fever in Bolton and Preston; from whooping-cough in Newcastle; from "fever" in Derby; and from diarrhoeal diseases in Plymouth, Liverpool, Burnley, Preston, and Gateshead. The 88 deaths from diphtheria included 33 in London, seven in Sheffield, six in Burnley, five in Liverpool, and five in West Ham. Sixteen fatal cases of small-pox were registered in London, but not one in any of the 32 large provincial towns. There were 297 cases of small-pox under treatment in the Metropolitan Asylums hospitals on Saturday, Nov. 9th, against 172, 180, and 284 at the end of the three preceding weeks; 62 new cases were admitted during the week, against 47, 57, and 169 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had risen from 2994 to 3392 at the end of the nine preceding weeks, had declined again to 3331 on Saturday last; 380 new cases were admitted during the week, against 404, 400, and 425 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 196, 242, and 327 in the three preceding weeks, further rose last week to 445, and were 75 above the corrected average. The causes of 55, or 1·3 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Nottingham, Leeds, and in 13 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Manchester, Sheffield, and Hull.

## HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had risen from 14·5 to 19·9 per 1000 in the five preceding weeks, further increased to 21·7 per 1000 during the week ending Nov. 9th, and was 2·3 above the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 13·7 in Greenock and 18·1 in Leith, to 23·7 in Perth and 24·2 in Glasgow and in Dundee. The 692 deaths in these towns included 24 which were referred to measles, 23 to diarrhoea, 16 to whooping-cough, 16 to "fever," six to diphtheria, and five to scarlet fever. In all, 90 deaths resulted from these principal zymotic diseases last week, against 69 and 79 in the two preceding weeks. These 90 deaths were equal to an annual rate of 2·8 per 1000, which was 0·8 per 1000 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of measles, which had been 12 and 14 in the two preceding weeks, further rose last week to 24, of which 19 occurred in Glasgow, and four in Dundee. The deaths from diarrhoea, which had been 27 and 32 in the two preceding weeks, declined again to 23 last week, and included 10 in Glasgow, six in Dundee, three in Aberdeen, and two in Edinburgh. The fatal cases of whooping-cough, which had been 12, eight, and five in the three preceding weeks, increased last week to 16, of which 12 were registered in Glasgow and two in Dundee. The deaths referred to different forms of

"fever," which had been five, 13, and 14 in the three preceding weeks, further rose to 16 last week, and included 12 in Glasgow and two in Paisley. The fatal cases of diphtheria, which had been five and nine in the two preceding weeks, declined again last week to six, of which five occurred in Glasgow, where two of the five deaths from scarlet fever were also registered. The deaths referred to diseases of the respiratory organs in these towns, which had been 133 in each of the two preceding weeks, increased last week to 162, and were 12 in excess of the number in the corresponding period of last year. The causes of 24, or more than 3 per cent., of the deaths in these eight towns last week were not certified.

## HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 19·9, 19·3, and 22·7 per 1000 in the three preceding weeks, further rose to 23·2 per 1000 during the week ending Nov. 9th. During the past four weeks the death-rate has averaged 21·3 per 1000, the rates during the same period being 17·2 in London and 16·9 in Edinburgh. The 167 deaths of persons belonging to Dublin registered during the week under notice were four in excess of the number in the preceding week, and included five which were referred to the principal zymotic diseases, against nine and 19 in the two preceding weeks; of these, two resulted from "fever," two from diarrhoea, and one from whooping-cough. These five deaths were equal to an annual rate of 0·7 per 1000, the zymotic death-rate during the same period being 1·6 in London and 1·0 in Edinburgh. The fatal cases of diarrhoea, which had been four and nine in the two preceding weeks, declined again last week to two. The two deaths from "fever" showed a considerable decrease from the numbers in recent weeks. The 167 deaths in Dublin last week included 34 of children under one year of age and 44 of persons aged upwards of 60 years; the deaths of infants showed a marked decline, but those of elderly persons slightly exceeded the number in the preceding week. Six inquest cases and six deaths from violence were registered during the week, and 45, or more than one-fourth, of the deaths occurred in public institutions. The causes of 14, or more than 8 per cent., of the deaths in Dublin last week were not certified.

## THE SERVICES.

## ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Staff Surgeons: H. E. South to the *Rupert* and E. B. Pickthorn to the *Boscawen*. Surgeon H. A. Julius to the *Pembroke*.

## ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain H. C. Lampert to be Surgeon-Major.

## VOLUNTEER CORPS.

*Artillery*: 3rd Middlesex: Surgeon-Lieutenant P. Wood to be Surgeon-Captain.

## SOUTH AFRICAN WAR NOTES.

Civil Surgeon E. O. Osborn is reported to have been accidentally slightly injured (fractured clavicle) at Volksrust on Nov. 9th.

## SANITARY TACTICS.

An important work on medical service in war time has recently been published in two volumes 12mo by Rueff of Paris, the author being Dr. Benech, principal medical officer of the first class and formerly a professor at the École de Guerre. In his introduction Dr. Benech apologises for making use of the phrase "sanitary tactics" to indicate the complex procedure by means of which the medical department is enabled to "conserve its contacts" with the rest of the army, but doubtless many of his readers will regard the expression as a happy one. In the sub-title Dr. Benech describes his book as intended for the use not only of medical officers but also of officers on the staff. On a campaign the duties of both classes overlap continually, and accordingly his object is to throw as much light as possible upon "this zone of penetration." In order to avoid loss of time and the improper utilisation of means the director of the medical service, who generally speaking will have been present when the disposition of the units composing the force was arranged, being acquainted with the views of the commander should apportion the field of

battle into two or three sections according to circumstances, placing each section under a divisional medical officer if available, or in his absence under the officer next in rank. He should distribute between these sections the whole of the sanitary *personnel*, equipment, and appliances, whether belonging to corps, units, ambulances, or hospitals, having regard to the requirements in each case and being guided by the information which he has received. It should be in his power, moreover, to modify this distribution subsequently if any unforeseen contingencies should arise; and in like manner the officers in charge of sections should give effect to such minor modifications as may seem to them to be necessary. Dr. Benech in the next place proceeds to lay down the law on an important point. Who, he asks, should have the command on the field of battle after the combating force has been moved away from it? Who should represent supreme authority in this domain of sickness and of death? Clearly, he continues, the chief authority in such a case must necessarily be vested in a medical officer, and it is on the individual at the head of the "evacuation" hospital that this duty naturally devolves. The principal medical officer accompanies headquarters; the chief medical officer of the lines of communication has to attend the general officer, whose technical adviser he is; the officer in charge of the evacuation hospital being the chief medical official on the spot should have control over the field of battle and its vicinity, the limits of his jurisdiction and also his place of abode being determined by the Commander-in-Chief. In addition to his normal duty with the evacuation hospital this medical officer should have command over all the field and auxiliary hospitals which may have been detached from the front and should be responsible also for the following duties: the burial of the dead and the general sanitation of the locality; the formation and despatch of convoys for the sick and wounded; and the preparation of requisitions for auxiliary *personnel*, *matériel*, and supplies of every sort, including vehicles for transport, clothing, and food. Dr. Benech's volumes contain much to repay perusal.

#### ARMY ADMINISTRATION.

Under the above heading we briefly called attention last week to the new Order in Council defining the position and duties of the principal officers who are, under the War Minister, charged with the administration of the different departments of the army. It is an important Order, inasmuch as it is not only the first of the promised changes in War Office reform but, as far as the Army Medical Service is concerned, it is the first time that the Director-General of that service has been thus recognised as the head of a department and an officer of the headquarters staff having direct access to the Secretary of State for War. The new Order in Council should be read and considered in connexion with our leading article on the scheme of War Office reform (*vide* THE LANCET, Oct. 26th, p. 1132). The position of the present Commander-in-Chief under the new Order differs somewhat, but not very materially—except as regards the *personnel* of the army and the Adjutant-General's department—from that occupied by his predecessor, Lord Wolseley, under the Orders in Council of 1888 and 1895. As we pointed out, everything and everybody connected with the army comes under the Commander-in-Chief as its head, and under the new Order in Council falls within one or other of two categories—namely, under the direct control or simply under the supervision of the Commander-in-Chief. The Director-General of the Army Medical Department discharges the duties of his office under the "supervision" of the Commander-in-Chief, and has right of access to, and power to advise, the Secretary of State on all matters appertaining to his department and the sanitary state of the army. It remains to be seen practically how the new order of things and the newly-constituted War Office boards will work, but there can be no doubt that the head of the Army Medical Service will henceforth occupy a new and a more important and influential position than has hitherto been the case.

#### LORD ROBERTS AND THE PORTLAND HOSPITAL.

Lord Roberts presented medals to the staff of the Portland Hospital and to members of the Welbeck Ambulance Division who have returned from duty in South Africa in the riding school at Welbeck, Nottinghamshire, on Nov. 8th. After the presentation the Duke of Portland, on behalf of the hos-

pital staff, thanked General Eaton for the great work which he did in helping to organise the hospital, and Mr. Langman who kindly gave his services as treasurer and afterwards equipped a hospital at his own expense and took it out to South Africa. Lord Roberts said that he remembered well when the Portland Hospital reached Bloemfontein how glad he was to get the assistance of a well-organised hospital fitted out in every way complete with doctors, nurses, and men who knew how to deal properly with those who were wounded or sick. The Portland Hospital and the Langman Hospital came out to South Africa at the same time and it rejoiced his heart to get such able assistance, for at that time they had something like 6000 cases of enteric fever on hand in the few months during which they had been there. But for the aid afforded by private sources they would have been in great straits. These men who went out to South Africa in the position they did deserved the greatest possible credit, because they had not the incentive of the Yeomanry and the Volunteers to turn out in the same way. There was none of the excitement of war in their case. They went to do the work of tending the sick and wounded, and he was thankful to note how cheerful and willing they were to do that work.

#### SOUTH AFRICA.

The casualty returns recently received from South Africa, in addition to recording the losses sustained in the attack on Colonel Benson's column, show some increase of sickness, although not to any great extent, among the British troops. There is otherwise little of medical interest in the news from the seat of war. Reinforcements are being steadily sent out from this country to South Africa. The military news would indicate that we must now look to the annexed territories for coming events. It is interesting to notice that Lord Kitchener reports that General De Wet has reappeared in the field in the North-Eastern Orange Colony.

#### THE BIRTHDAY HONOURS.

Lieutenant-Colonel G. H. D. Gimlette, I.M.S., is appointed to be a Companion of the Order of the Bath.

The King has been pleased to approve of the grant of the Kaiser-I-Hind Gold Medal to Major Herbert Edward Deane, R.A.M.C., to Major Thomas Edward Dyson, I.M.S., to Lieutenant-Colonel James McCloghry, I.M.S., and to Captain Edmund Wilkinson, I.M.S.

## Correspondence.

"Audi alteram partem."

### DR. GLOVER'S RETIREMENT FROM THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—On the subject of retirement from my candidature for the office of Direct Representative I am receiving a number of letters to which I can give no adequate immediate answer. It will be good if you will allow me through your columns to ask my friends to excuse me if there should be some delay in my reply to their most kind communications.

I am, Sirs, yours faithfully,

25, Highbury-place, N.

JAMES GREY GLOVER.

### THE ETHICS OF THE PUBLIC VACCINATOR.

To the Editors of THE LANCET.

SIRS,—The inclosed cutting is taken from the *Standard* of Nov. 9th. It is little to be wondered at that you have so frequently in your columns letters complaining of the conduct of public vaccinators with regard to the patients of other medical men, when we see such a production as this allowed to appear in the daily press under the authority of the organising secretary of the Association of Public Vaccinators. The first two sections are bad enough, but what can the third section be taken to imply, except (a) that the medical practitioner who is not a public vaccinator is likely not to use reasonable safeguards in the performance of vaccination, and (b) that he is likely not to use good sound lymph for the work,

I have no particular grievance against any individual public vaccinator; but there is a way of talking about "free" vaccination which seems to imply that it is done gratis; whereas, on the contrary, in many districts the public vaccinators are well paid for the work; and not only so, but the expense of this payment has to be, in part, borne by the very men who suffer when the unscrupulous public vaccinator persuades patients to have the vaccination done "free," rather than allow them to pay the moderate fee of their usual medical attendant. On this point it would be interesting to have the return of fees paid to public vaccinators which your correspondent "General Practitioner" asked for in *THE LANCET* of Nov. 9th, p. 1300.

Nothing to my mind would be more desirable than universal vaccination and revaccination. But I cannot help thinking that this vaccination Utopia would be nearer of realisation if some change were made in the system of public vaccination. Every medical man should be allowed to claim his fees from the Guardians for the vaccination of his poorer patients, and if the Local Government Board are in earnest on the subject they should be prepared to supply lymph, not necessarily gratis, to any practitioner requiring it. Another alternative would be to appoint a number of public vaccinators *who should not be allowed to engage in private practice* in the neighbourhood in which they hold office. The first suggestion is, I think, the better; but either of these systems would obviate the feeling which must arise in the mind of many general practitioners, that the public vaccinator has it in his power to interfere with the patients of other medical men, for the advantage of his own practice.

It cannot be that the authorities do not trust the general practitioner as to his capability; for, though they do not define what is to be considered a satisfactory vaccination, they already accept his certificates for the vaccination of all those who are independent enough to wish to pay for themselves rather than be helped out of the Poor Rate. If the general practitioner were paid by the guardians he could be made to furnish data as to the number of insertions and result, and thus a uniform high standard would be secured; whereas now the general practitioner is left to form his own standard as to what is a satisfactory vaccination.

In conclusion, Sirs, I shall be glad to know if something should not be done to prevent the publication by an association of medical men of such an undignified, and, by implication, unjust, advertisement as the inclosed cutting.

In view of the fact that considerable misapprehension exists in regard to revaccination, the Organising Secretary of the Association of the Public Vaccinators for England and Wales writes to inform the public:—

1. That every person in England and Wales is entitled to demand revaccination at his own house, free of charge, at the hands of the public vaccinator of his district, provided that such person has not been vaccinated or revaccinated within 10 years preceding the date of his demand.
2. That the name and address of the public vaccinators for each district in England and Wales can be obtained from the clerk to the guardians and from the registrars of births and deaths.
3. That public vaccinators are the only medical men who are compelled to use the safeguards prescribed by the regulations of the Local Government Board, and that they are the only persons who can obtain the pure glycerinated calf lymph prepared in the laboratories of the Local Government Board, and that they are compelled to use that lymph in all cases of vaccination and revaccination in their own districts.

I am, Sirs, yours faithfully,  
Harrow, Nov. 9th, 1901. A. H. WILLIAMS, M.D. Edin.

To the Editors of THE LANCET.

SIRS,—Under the heading "Vaccination Facilities" there appears a letter in last Saturday's *Morning Post* from the Organising Secretary of the Association of Public Vaccinators. I should much like to ask this gentleman in reference to par No. 3 of his communication (1) whether he considers all glycerinated calf lymph, other than that obtained from the Local Government Board, to be open to objection; (2) whether by using the words, "That public vaccinators are the only medical men who are compelled to use the safeguards prescribed by the regulations of the Local Government Board" he wishes the public to infer that public vaccinators are the only medical men capable of properly performing vaccination; and (3) whether his letter is intended to benefit and enlighten the public or whether it is not, in reality, in the nature of a trades-union circular calculated to boom the public vaccinator at the expense of the private practitioner.

I am, Sirs, yours faithfully,  
ALFRED BALDOCK, M.B. Aberd.  
Earl's Court-road, South Kensington, Nov. 11th, 1901.

## EFFICIENT VACCINATION.

To the Editors of THE LANCET.

SIRS,—In connexion with the question of the efficacy of much of the glycerinated calf lymph that is being used for revaccinations at the present time it appears to me that there is another important element in the case to which your correspondents make no reference. When talking to people on the subject (and wherever one goes vaccination is a general topic of conversation just now) one has repeatedly heard the following statement: "I have been revaccinated and it did not take (or it took only slightly) and my doctor says I need not be done again because it shows I am not susceptible to small-pox." In view of the fact that much of the lymph being sold is inert or very feeble, as evidenced by patients developing typical vaccinia after a subsequent revaccination with another sample of lymph, practitioners ought not, I think, to tell their patients that they are insusceptible because they have been once revaccinated unsuccessfully with a lymph the potency of which is in many cases extremely doubtful. Should, unfortunately, our efforts to stamp out the disease this winter be unavailing and the epidemic of small-pox break out in earnest with the approach of the spring, as we may be led to expect, judging from the history of previous outbreaks, the value of vaccination and revaccination will be seriously called into question if many of the so-called "immune" persons—really inefficiently revaccinated and quite unprotected—should acquire the disease. Successful vaccination and revaccination are of such prime importance in connexion with the public health that the Local Government Board ought at once to take the matter in hand, and either supervise the manufacture of the lymph supplied by the various firms or make arrangements whereby practitioners other than public vaccinators may obtain a reliable lymph. At present it is only by going to the public vaccinators that the public are certain of being treated with a potent lymph, and only under those conditions is a negative result of any value at all; even then an unsuccessful revaccination should be repeated in the case of those persons who have not been vaccinated since infancy.

I am, Sirs, yours faithfully,  
DAVID NABARRO, M.D. Lond., D.P.H.  
University College, London, Nov. 11th, 1901.

To the Editors of THE LANCET.

SIRS,—I am desired by the Executive Committee of the Jenner Society to forward to you the inclosed copy of a resolution recently passed by them with the hope that in view of the great importance of the subject to which it refers you will be able to find room for it in your columns.

I am, Sirs, yours faithfully,  
FRANCIS T. BOND, M.D. Lond.,  
Gloucester, Nov. 5th, 1901. Honorary Secretary.

[INCLOSURE.]

At a meeting of the Executive Committee of the Jenner Society, held at Gloucester, Nov. 1st, 1901, it was resolved unanimously: That it is desirable in the interests of the public health as well as for the fuller appreciation of the truth concerning vaccination, that in every outbreak of small-pox the authority responsible for the isolation of infected persons should at as early a date as possible, and from time to time during the outbreak, issue for the information and assurance of the public returns of all cases of small-pox under their observation, in a form showing the vaccinal condition of all persons attacked who are alleged to have been vaccinated, in regard to (1) their ages; (2) the time when vaccination was done; (3) the evidence, so far as may be discoverable from scars or other sources, of the character of their vaccination; (4) the type of the attack; and (5) its result (so soon as this can be done).

To the Editors of THE LANCET.

SIRS,—The protective influence of vaccination is one of those questions which can only be settled by experiment; talking and writing, discussions on platforms and in newspapers, will never settle it. When Jenner told Hunter he thought he had discovered a protection from small-pox Hunter said, "Don't think—try." Tell an unsentient audience that if the surrounding air were removed a sovereign and a feather would fall to the ground in the same space of time or that water is composed of two volumes of hydrogen and one of oxygen and they will not believe you, but if you remove the air and decompose and recombine the water by two experiments and show your audience that your assertions are true they will see and believe. Also, if it were permissible, I could show them by

an experiment that vaccination protects from small-pox. I would take 20 children, 10 unvaccinated and 10 efficiently vaccinated, place them in some hospital ward, and inoculate all of them with matter taken from a small-pox patient; then they would see that all the unvaccinated and none of the vaccinated took the disease. The experiment would be conclusive and *adit quaestio*. Mr. Marson tells us that in 30 years no nurse or servant at the Small-pox Hospital has taken small-pox, he having taken care always to revaccinate them on their admission; and further, that when a large number of workpeople were employed for several months about the hospital, most of whom consented to be revaccinated, two only were attacked by small-pox and these were amongst the few who were not revaccinated. Anti-vaccinationists alone fail to see in these facts a proof of the protective power of vaccination. Possibly, if half the nurses had been anti-vaccinationists and unvaccinated, if all of these had been attacked and many of them had died whilst all the vaccinated escaped, they might be convinced; but it is more probable they would ignore all the facts and fall back on their stock arguments based on statistics. Now, statistics are only valuable when compiled with the greatest possible care, and in the matter of vaccination this care has not been exercised. When we bear in mind that in the early days of vaccination, when postmen, grooms, and others were often the operators, vaccinations in thousands of cases were mere shams; that, more recently, lymph was taken from the arm upon little ivory points and kept for weeks and months before it was used, by which time the lymph was as dry, hard, and inert as a naked ivory point; that even now some vaccinations are so inefficient that they leave only one or two imperfect marks, instead of the three, four, or five characteristic ones required by our experts, it is evident that if statistics include persons thus really and truly unvaccinated as vaccinated all arguments based upon and conclusions drawn from such statistics are utterly worthless. What we contend is that efficient vaccination and revaccination confer immunity from small-pox, and we challenge anti-vaccinationists to prove that it does not.—I am, Sirs, yours faithfully,

D. HOOPER, B.A., M.B., M.R.C.P. Lond.

Trinity-square, S.E., Nov. 9th, 1901.

#### To the Editors of THE LANCET.

SIRS,—As supplementary to, and confirmatory of, Mrs. E. Garrett Anderson's letter in THE LANCET of Nov. 9th (p. 1299), may I be allowed to draw the attention of your readers to a correspondence which has been going on in the *Times* with regard to the gross injustice under which the public generally and the medical profession labour owing to the National Vaccine Establishment refusing absolutely to supply calf vaccine to medical men for private vaccinations, so that the lymph from which these vaccinations are performed has to be obtained from outside sources about which nothing is known as to preparation, source, stock, purity, or quality, and this notwithstanding that the establishment is kept up by Imperial funds and for national purposes. Why should this lymph, about which at least we do know something, be reserved and supplied gratis only to that already well-paid monopolist, the public vaccinator? If "efficient" vaccination is a prophylactic against the ravages of small-pox, surely the largest factor in that efficiency is the purity and energy of the vaccine; the person, the mode, and the area being but minor factors compared with this, the essential agent of the process on which the subsequent immunity depends. I venture to say that if a medical practitioner were questioned by his patient as to the source of his lymph in most cases his knowledge would only extend to the agent or druggist from whom he obtained it. Would this be considered really satisfactory by the patient if he knew or cared about inquiring what was being inserted into him? In years gone by we knew something of the strain of babies and their parents from whom we used to vaccinate from arm to arm; are we not sinking further into the mire of ignorance by the way in which we are driven by the supineness or inertia of the nation's vaccine authorities to use the lymph as at present supplied? Again, are we not playing into the hands of the anti-vaccinationists and forging a weapon wherewith they may thrash us? Those who saw the correspondence will notice that one correspondent made the excuse that the principles of the administration of vaccination remain the same as 30 or more years ago, though material change has taken place in the practice; if so, then the sooner the organisation of the administration is brought

up to date the better, for at present there is an anomaly amounting to a scandal, or, as the *Times* puts it, a comedy which might easily be converted into a tragedy.

I am, Sirs, yours faithfully,

Nov. 9th, 1901.

R. B.

#### SCARLET FEVER, SMALL-POX, AND VACCINATION.

To the Editors of THE LANCET.

SIRS,—The invasion of small-pox calls for a careful survey of the forces available to meet it. I do not presume to enter upon the discussion of these forces in detail. I wish, however, to invite attention to one or two questions relating to the infective characters of scarlatina and small-pox and the action of vaccination which appear to have been overlooked.

As to the propagation of scarlatina.—In the *Medical Gazette*, 1850-51, I published a paper "On the Occurrence of a Muco-purulent Discharge in Scarlatina, and on the Importance of this Symptom in Relation to Forensic Medicine." The argument of this paper was based upon a case of scarlatina in a girl, aged about 16 years, which I had seen at the Hôtel-Dieu when a student under Chomel. After the decline of the eruptive stage, and when apparently convalescent, there occurred a muco-purulent discharge from the vagina similar to that which not uncommonly flows from the nares as one of the sequelæ of scarlatina. I afterwards saw a child, 11 years old, who was recovering from scarlatina. It was observed for the first time that she had a discharge from the vagina, and suspicion arose that she had been abused by a lad in the neighbourhood. Dr. Tweedie told me that his attention had never been directed to such an occurrence, and that when a purulent discharge from the vagina was noticed in scarlatinal patients he concluded it to be blennorrhagia.

In 1851 I published in the *Medical Gazette* a paper "On the Occurrence of a Muco-purulent Discharge from the Vagina as a Consequence of Small-pox," and I pointed out that leucorrhœa so arising may be the foundation of persistent leucorrhœa and lead to confirmed inflammation and hypertrophy of the cervix uteri. The etiological error and the disease may be avoided, and the disease be readily subdued if detected early. It is interesting evidence of the action of the zymotic poison throughout the system. I insisted on the expediency of making strict investigation into the state of the vaginal canal, especially at the period of the decline of the febrile symptoms. In order to fix attention upon the origin of leucorrhœa from zymotic disease I proposed to distinguish them by the terms "scarlatinal leucorrhœa" and "variola leucorrhœa." I am not able to determine to what extent these forms of leucorrhœa have been recognised. But there is reason to think that they have not received the attention they deserve from pathological, therapeutical, or medico-legal aspects. It is not mentioned in Quain's Dictionary. But Graves, Scanzoni, and others have since confirmed my observations. A striking example of this oversight may be seen in the report of the Fever Hospital Committee of the Royal College of Physicians in 1900. In discussing the infectivity of mucous discharges, "otorrhœa" and "rhinorrhœa" are mentioned, but no mention is made of the discharges from the vagina or other mucous canals. To this committee which undoubtedly represents the knowledge of the profession in general, the variolous and scarlatinal leucorrhœas are but hidden constituents of what I have called "occult leucorrhœa."

How long does the infective property of these vaginal discharges last?—I am not able to answer this question, but it may be assumed that it lasts quite as long as that of the skin and perhaps longer. And without reckoning direct contact with the poison at its seat in the vagina, the deposit of the poison on linen, clothes, and w.c.'s, and other modes of diffusion, must be admitted as probable modes of infection.

How to avoid or minimise this danger?—I have always advocated the use of warm baths, simple or charged with small additions of iodide or carbolic acid. In very persistent cases a small plug of sponge or lint impregnated with a weak solution of iodine may be introduced into the vagina. As the infective poison may be absorbed from the vagina so may the antitoxin.

I think it useful to add a caution as to vaccination. I have seen serious illness follow upon vaccination in adult women. In young healthy children the vaccine matter works its simple course, but in some subjects, especially those in whom some morbid process is at work,

a complicated reaction takes place, an unlooked-for fermentation results in a form of toxæmia involving danger to life. Cases of this kind are sure to be seized upon as the ground for "conscientious objection" by the faddists who do not recognise their duty to their neighbours. The conclusion is that the fitness of the individual to go through vaccination soundly must be well weighed. This is especially proper in the case of revaccination. I am afraid there is not only the fault of non-vaccination to contend with, but there is also the fault of indiscriminate vaccination.

I am, Sirs, yours faithfully,

ROBERT BARNES.

Nov. 13th.

## THE SANATORIUM IN THE TREATMENT OF PHTHISIS.

To the Editors of THE LANCET.

SIRS,—Among the many weighty questions raised by Professor Allbutt in his eloquent address on the above subject (published in your last issue) not the least important is that relating to the use of gymnastics in phthisis. After observing that the subject is "little understood," and that in the more active stages of pulmonary disease "gymnastics must be inappropriate," Professor Allbutt continues: "In healing stages, when softening has ceased and the lung is drying and laying down protective fibre, may not gymnastics, under supervision as skilled as for cardiac disease, do much to expand and thus to call into healthy function the parts which the tubercle has spared? I seek the answer from those who are dealing daily with these problems."

This question is, I think, capable of a decisive answer. In no form of lung disease, not even excepting extensive collapse left by a vanished pleural effusion, are special exercises for the purpose of bringing about pulmonary expansion either needful or desirable. The fact is that in all cases of lung disease sufficiently pronounced to cause dyspnoea the organism of its own accord puts into operation, by virtue of the dyspnoea, a process by which the lungs are expanded just so much as is desirable. Now, in phthisis dyspnoea, even though it should be absent during complete rest, is readily provoked by even moderate exercise, and, therefore, no special exercises are required to promote pulmonary expansion in this disease.

The expanding force which operates in dyspnoea results from the powerful contraction of the inspiratory, as compared with the expiratory, muscles. In acute dyspnoea resulting from sudden occlusion of the trachea and similar causes there may, it is true, be very powerful expirations—indeed, in dyspnoea thus induced the entire muscular system may be involved in violent contractions—but in the ordinary pulmonary and cardiac dyspnoea, as we see it in the sick-room, we shall find that the inspiratory muscles act much more vigorously than the expiratory. Why this is so I shall not stop to discuss; it is sufficient for my purpose simply to state the fact. Inspirations are vigorous, proceeding, it may be, to their limit; expirations are comparatively shallow; so that, if the lungs permit, there is an increase in the mean size of these organs. If much lung has been destroyed the total lung capacity may, of course, be subnormal, but often it may be normal, and sometimes, especially in chronic cases, even supranormal.

This over-action of the inspiratory muscles in dyspnoea I can vouch for from having for some years past carefully examined a large number of cases, with a view to studying the behaviour of the respiratory muscles in this condition. Often the expiratory muscles seem scarcely to act at all, expiration occurring essentially by passive recoil; sometimes, indeed, they do unmistakably contract, but these cases form a special group any further reference to which would lead me from my point. So eloquent a testimony of dyspnoea is this inspiratory over-action that it is quite easy for anyone to diagnose blindfold a minute degree of it—all that is needful is to place a finger over the scapula: the intensity of their contractions is an accurate measure of the intensity of the dyspnoea.

I trust, Sirs, that the above considerations make it clear that special gymnastic exercises for the purpose of favouring pulmonary expansion are needless in case of lung disease, inasmuch as the organism secures unaided all the expansion that is desirable; and even this expansion may have as a necessary consequence the induction of a considerable degree of emphysema.

I am, Sirs, yours faithfully.

Wimpole-street, W., Nov. 10th, 1901.

HARRY CAMPBELL.

## THE REORGANISATION OF THE ARMY MEDICAL SERVICES.

To the Editors of THE LANCET.

SIRS,—In view of the light thrown upon the report of the War Office Committee by the letter of Sir Frederick Treves in THE LANCET of Nov. 2nd (p. 1226) and elsewhere to the effect that "it provides no more than a framework upon which it is hoped that a system of reconstruction may be based," I would, with your permission, before the scheme takes a definite official form, make a few remarks on two of the headings contained in the communication referred to, and I limit myself to details only, as my opinion is that the scheme is a valuable one, based on right principles, and contains elements capable of being worked out to a successful issue.

And, first, touching the Advisory Board. The necessity for such a body is apparent in view of the conclusions of the Royal Commission on the desirability of a committee of experts for making out the details of its recommendations and the omission of the War Office Committee to comply therewith except on the one detail of the provision of a peace medical personnel. That the duties placed upon it are of a high order and of great importance will not be doubted, but what one may doubt is the advisability of placing upon it so many civil medical men, equalling the army medical men, considering that some of the duties it has to undertake, such as drawing up a scheme for ambulance, transport, and field medical organisation for war, and consideration of the fitness for promotion and retention of officers in the service are hardly such as are likely to be met with the necessary personal knowledge on the part of the civil section for a satisfactory result. The range of duties is certainly not covered by the qualifying prefix "advisory," inasmuch as some of these duties are essentially constructive in nature and some are as much "executive" in character as those usually performed by the Director-General, such as arrangement of examinations, inspection of hospitals, control of nursing service, and consideration of the names of those judged worthy of advancement. And in respect to this last function, while we may agree with Sir F. Treves that Paragraph 18 states that the Director-General is responsible among other matters for promotion, yet, if words mean anything, this responsibility is not solely delegated to him, but by Paragraphs 14 and 19 is shared also by the board. Unless this be the intention of the scheme Paragraph 14 is both meaningless and misleading. Moreover, the combined conclusion is not finite, as submission to the Commander-in-Chief is yet an essential part of the process. And as bearing on this matter we have by the new Order in Council for Army Administration the Commander-in-Chief charged with the duty of promotion in the service generally, a subject which, departmentally limited, has no place in Section V. relating to the duties of the Director-General, and I venture to think that the experience of some of our Director-Generals would not support the view that the execution of this duty in respect to the Army Medical Services by Commanders-in-Chief can be regarded as merely nominal in character and likely to be performed in a perfunctory way. That the responsibility for promotion and the power should rest with the Director-General will doubtless obtain a general concurrence, yet were this the opinion of the committee it is difficult to account for the introduction of the qualifying fourteenth paragraph; but as the matter now stands the responsibility is surely a divided one, and as such constitutes a great blot in the scheme.

And, secondly, touching the proposed system of examinations. While we may agree with Sir F. Treves on the purpose of the examinations we yet may doubt the advisability or the necessity of such frequency as is intended. Possibly and probably an examination is the best test for the junior executive ranks, but the desirability of subjecting middle-aged professional men to a third scholastic trial for determining their fitness for administrative duties may be questioned, especially as a possibly better substitute—selection from shown practical administrative ability—has been and is again advocated. And if it be asked what is the proposed basis for selection I would say, the same as that guarding the administrative posts—personal knowledge and honest, competent full reports. What is valuable and sufficient in the one case is equally so in the other. Sir F. Treves comments adversely on the "unjust and objectionable system of 'confidential reports,'" yet if we refer to Paragraph 21 of the scheme bearing on the admission of

candidates we find that "special importance shall be attached to a confidential report to be requested by the board from the dean or other authority of the school in which the candidate has completed his course as a medical student," and reports from the principal medical officer and officer commanding the service unit guard continuance in the service after three completed years, and "satisfactory conduct" (presumably based on reports) guards subsequent promotions. The old reports were confidential only in name, any adverse comments being necessarily given in writing to the individual affected, carrying with them the right to challenge them if thought desirable, and certainly acted on; and during a long career in which it was my duty to submit to this system and to practise it the worst feature advanced against it was its utter uselessness for the purpose intended, probably explained by the course adopted. How far the reports required for the future carry with them this important corrective of the old system remains a subject of doubt, but if not so safeguarded it seems to me that they will be open to adverse comment in a degree absent in the former so-called confidential reports. The necessity for reports is recognised and without them it is not possible to understand how the promoting duties of the board and of the Director-General are to be performed for the higher ranks, and provided that they are made by competent men and full in detail and possibly safeguarded as formerly it is not apparent where the objections lie and why they should not be equally satisfactory and operative for promotion to the rank of lieutenant-colonel in lieu of the third examination as for the administrative ranks. As for the probability of "no great stress being placed on two of the subjects" of this examination, this may indicate an instability of purpose on the part of the committee, yet from the view of the examinee a more important question is the attitude of the examiner in respect to them, especially as the information necessary for the satisfactory answering of one of them—the army medical services of other Powers—must be very difficult to obtain, even if anywhere available.

I am, Sirs, yours faithfully,

FRANCIS H. WELCH, F.R.C.S. Eng.

Brandram-road, Lee, Nov. 9th, 1901.

## THE FORTHCOMING ELECTION OF DIRECT REPRESENTATIVES.

To the Editors of THE LANCET.

SIRS,—In an annotation in THE LANCET of Sept. 21st (p. 802) you refer to a scheme put forward by the Manchester Medical Guild for the settlement of the midwife question, and you say that it is in its essential features the same as I put before the profession in 1898 in my Sick and Obstetric Nurses Bill. I have to thank you for saying so as for some reason or other the Manchester Medical Guild appear to have resolved to rob me of any credit I am entitled to in the matter. I enclose you once more a copy of my Bill and you will see at a glance that the vital clauses of the Bill are adopted in the Guild scheme. If you can see your way to publish the Bill, or at least the principal clauses, the profession as a whole will be able to draw its own conclusions. In his address to the Manchester Medical Guild on Oct. 31st Dr. Woodcock is generous enough to say<sup>1</sup> :—

Recently they had had the outline of another scheme which was called the Medical Guild scheme. There had been a little discussion as to the paternity of that measure in the press. He did not know himself that it was quite a newborn child. He thought it was a sort of foundling adopted by the Medical Guild and it did not appear that it was got rid of by its real parent with the idea of avoiding responsibility, but he was generously hiding himself that when the child was more developed he would be able to augment the resources of its foster-parent.

As this passage of Dr. Woodcock's address can only refer to me I beg to say that I have always maintained the paternity of the scheme and never tried to "get rid of it" in any sense of the word, and, once more, I must express my surprise at the left-handed conduct of the Manchester Medical Guild in the face of Dr. Woodcock's admission. All I ask is fair play and the insertion of the leading clauses of my Bill in the columns of THE LANCET. I much regret that I could not hear Dr. Woodcock in Liverpool and ask him the following questions which I put to Mr. Horsley, Mr. Brown, and Mr. Jackson: 1. Will you try to induce the General Medical Council to introduce a Bill embodying the 10 points submitted to the Privy Council as essential in any Bill

dealing with midwife registration? 2. If the Council refuse, will you introduce a Bill yourselves, and on what lines? 3. Will you try to induce the General Medical Council to administer any Bill that may be passed into law?

I consider the above questions cover the whole ground of the midwife controversy, and I purposely abstained from alluding to my own Bill, so as to eliminate the personal as far as possible, and, as I said, to take the settlement out of the hands of amateurs. Mr. Horsley's reply to the first question was "to leave the General Medical Council severely alone," but all three promised to introduce a Bill next session embodying the views of the vast majority of the profession on the midwife question. So far matters are clear, and I think it is regrettable that Dr. Woodcock, evidently with a view to securing votes and conciliating the members of the Guild, should pin his faith to a scheme which he admits is none of theirs but is in the position of an "adopted foundling." That a Bill such as I have drafted and the principles of which have never been controverted must be introduced early next session goes without saying or the cause is lost and the Midwife Registration Bill will become the law of the land. As to my third question none of the candidates appear to have made up their minds. Mr. Horsley said the General Medical Council had not the means to administer the Midwives Bill or any other Bill, and had not the power to impose a tax on the profession for administrative purposes. This is very unfortunate as the creation and endowment by Act of Parliament of a Midwives Board with a majority hostile to the medical profession—as undoubtedly it would be—would be disastrous to the prestige of the Council and go far to annul the Medical Acts. I hold that at whatever cost the General Medical Council must oppose the creation of a rival education board for one of the three branches of professional training. Mr. Horsley said that Government had already refused a grant to the Council for this very purpose and, therefore, immediate steps should be taken to raise the money by loan or by a special emergency tax such as Government calls up in an acute national crisis. I have reason to believe that the profession would respond liberally if offered a *quid pro quo* by the Council in the shape of increased direct representation. That failing, special provision should be made for financial emergencies in the proposed new Medical Reform Bill.

I am much surprised at Mr. Horsley's attitude towards the sitting Direct Representatives. He has gone considerably out of his way to recommend Dr. Woodcock to the electors, and says that of all the candidates at present before the profession Dr. Woodcock *alone* would be listened to with respect and be in the position of a *persona grata* to the President of the Council. Surely, this is going too far. I have not seen Dr. Woodcock and therefore cannot judge of his moral fibre, but such personal flattery is enough to turn any man's head and possibly might subvert his judgment in some acute crisis affecting the welfare of his constituents. Our present representatives have done yeoman service for their constituents and all must regret Dr. Glover's decision to resign; but it would be a calamity to the profession if either Mr. Brown or Mr. Jackson were left stranded in the council chamber and subjected to presidential jibes and flouts for trying to do his duty, while Dr. Woodcock enjoyed both smiles and compliments because of his greater complaisance. It is for this and other such reasons that I feel it my duty to myself and to the profession to vote for and support our "twin candidates" in the persons of Mr. Brown and Mr. Jackson. We want, above all, conscientious men who will do their duty "without fear or favour," and I am satisfied that these two plain-spoken men will support each other and be mindful of their pledges.

There is another excellent candidate from Liverpool in the person of Dr. Hayward, who is both medical man and lawyer, but he is, I fear, too late in the field for this election, but will be a powerful rival to some one on a future occasion.

We are in the presence of a great crisis in professional affairs and a false step just now would be fatal. It could not be retraced, try as we might, and it behoves us to hand down untarnished to posterity the fair fame of our noble calling. This is not to be done by creating a *quasi*-professional class of half-educated female practitioners under a central authority in keen competition with the Council of Medical Education and Registration, but by calling into existence by Act of Parliament or otherwise properly educated "obstetric nurses" who, like their

<sup>1</sup> THE LANCET, Nov. 9th, 1901, p. 1292.

professional sisters, will bring light and joy into the homes of the parturient poor. I am, Sirs, yours faithfully,  
Liverpool, Nov. 9th, 1901. ALEX. MCCOOK WEIR.

## A POINT FOR PUBLIC VACCINATORS.

*To the Editors of THE LANCET.*

SIRS,—It may be helpful to such of my colleagues as are public vaccinators if you will kindly publish the accompanying copy of a letter received by me to-day from the Local Government Board, which explains itself.

I am, Sirs, yours faithfully,

THOS. FRED. I. BLAKER,

Public Vaccinator, Steyning Union, Sussex.

Preston, Brighton, Nov. 9th, 1901.

[COPY.]

Local Government Board, Whitehall, S.W.,

Nov. 8th, 1901.

SIR,—I am directed by the Local Government Board to advert to your letter of the 1st instant, and in reply to state that the Vaccination Acts do not require the Public Vaccinator to send certificates of successful Revaccination to the vaccination officer.

I am, Sir, your obedient servant,

(Signed) NOEL T. KERSHAW,

Assistant Secretary.

## THE FALLING OFF IN THE ENTRIES OF LONDON MEDICAL STUDENTS.

*To the Editors of THE LANCET.*

SIRS,—No doubt the falling off in the number of entries at the London medical schools is partly due to the facts stated by your correspondent, but, I submit, a more powerful factor in producing this result is due to a determination on the part of future medical students to obtain a pass degree in the provinces with all its professional advantages rather than a diploma of the same standard of efficiency with all its professional, pecuniary, and social drawbacks.

I am, Sirs, yours faithfully,

FREDK. W. COLLINGWOOD.

Wimpole-street, W., Nov. 9th, 1901.

## THE PERSONAL FACTOR IN TUBERCULOSIS.

*To the Editors of THE LANCET.*

SIRS,—I am glad to see that Sir Dyce Duckworth has been calling attention to the personal factor in tuberculosis because there has been a tendency of late years to minimise the part played by the patient in the causation of disease. There is one indispensable cause of a microbic disease such as tuberculosis—namely, the action of the microbe on the tissues. This involves two equally essential factors—the presence of the microbe and the susceptibility of the tissues—and neither of these is effective without the other. Variations of a disease are often due more to variations of the personal factor than to variations of the microbe itself. This personal factor is of great importance with reference to treatment, since it is through it that we can best effect a cure or an improvement. For instance, the hygienic treatment of tuberculosis acts by increasing the power of the patient to resist the encroachments of the bacillus. I think that Sir Dyce Duckworth is a little hard on pathologists, but I must admit that the personal factor is often kept too much in the background.

I am, Sirs, yours faithfully,

CHARLES POWELL WHITE.

Medical School, Leeds, Nov. 11th, 1901.

## THE DANGERS OF WHIPPING WITH THE CANE.

*To the Editors of THE LANCET.*

SIRS,—Many years ago now, when I was the staff officer and cantonment magistrate in a station in India, I was visiting, officially one of the military schools. The school-mistress, a tall, powerful woman, the wife of the school-master, brought a boy before me, a sturdy, strong-looking little fellow, aged about 10 years, and charged him with repeated acts of theft. The child admitted his guilt and the school-mistress suggested a whipping. I gave the necessary

permission but limited the strokes to six. The school-mistress unfastened the boy's braces and put her left foot on the raised dais, and lifted the child on to her left knee, took down the white duck knickerbockers a little way, and raised the boy's shirt. One of her assistants handed her a thin cane. The first stroke left a terrible mark, and as I am altogether opposed to any undue severity I cautioned the school-mistress. At the third stroke the cane split and before I could stop the punishment the split cane came down upon the child's bare thighs inflicting a very nasty wound that bled freely. The child was immediately removed to the hospital that was quite near and got promptly the necessary treatment. Of course, the school-mistress, who was really a very kind-hearted woman and only wanted to cure the young thief of his dishonest tendencies, was in a terrible state of distress. I consoled her by telling her that we had learnt a lesson—namely, that a thin cane was a dangerous and too severe an instrument of correction on any part of children's bodies or hands. I had all the canes called in and orders were issued that only the hand or a slipper, the smooth back of a hair-brush, or a birch-rod were to be used.—I am, Sirs, yours faithfully,

P. F. ROBERTSON, Lieutenant-Colonel,

(late) 92nd Gortion Highlanders.

Cliftonville, Bray, co. Wicklow, Nov. 4th, 1901.

## SYNOVITIS FOLLOWING VACCINATION?

*To the Editors of THE LANCET.*

SIRS,—I recently vaccinated a gentleman with exceedingly good results so far as the vaccination itself was concerned. The arm furnished an excellent instance of a "good take." The right knee, however, soon began to swell and in the course of a few days the patient was *not* enjoying a well-developed synovitis of a curiously passive character. There was practically no pain or inflammation, and as the patient had in no way injured the knee and had never suffered from gout or rheumatism nor gave any history of rheumatic tendency I was obliged to admit that in all probability the synovitis was a result of the vaccination. I should like to know if any of your readers have had a similar case.

I am, Sirs, yours faithfully,

A. J. RICE OXLEY, M.D. Dub.

Courtfield-road, S.W., Nov. 9th, 1901.

## X RAYS IN HIRSUTIES.

*To the Editors of THE LANCET.*

SIRS,—Since my communication to THE LANCET of March 3rd, 1900, p. 654, I have had the opportunity of exposing about 40 cases of hirsuties to the x rays. Those mentioned in that letter are now free from growth. Those exposed within the following six months are as nearly relieved as can be. I notice that your correspondent Dr. David Walsh, in THE LANCET of Nov. 2nd, p. 1191, corroborates this treatment in hirsuties and suggests a dual treatment by electrolysis and x rays. My experience goes so far, now, to show that the Roentgen rays, if carefully carried out in exposures of 10 minutes on consecutive days for about a fortnight at intervals of from two to three months will generally effect a complete removal of hair and, I believe, this is the experience of Professor Schiff of Vienna and other workers. I recently have had under observation two cases, one lupus, one rodent ulcer, in which the adjacent hair has been destroyed by the unprotected action of repeated raying. I may here report a very favourable result in a case of ulcerating epithelioma of the tongue after nine exposures to the x rays; the photographs of the case I shall hope to forward shortly to you.

I am, Sirs, yours faithfully,

Harley-street, W., Nov. 5th, 1901.

JAMES STARTIN.

## MEDICAL MEN AND MIDWIVES.

*To the Editors of THE LANCET.*

SIRS,—Like many others of your correspondents, I have had the usual number of casual confinements, staying upon such occasions for hours in dwellings bearing the usual signs of chronic alcoholism in their tenants, and being myself nearly eaten alive, without receiving a penny for my time. So I have also resolved to take no confinements unless previously engaged or unless my fee is tendered in advance.

It is all very fine for the so-called leaders of the profession

who count their gains by guineas instead of shillings to indulge in cheap sneers at the "tradesmanlike" attitude of the general practitioner, but as a descendant myself of a commercial family I fail to see the stigma of being dubbed a tradesman. In fact, grocers, haberdashers, and others are too often robbed by the same customers who go the round of all the doctors in the place and pay no one. With regard to emergency calls in general, I have been summoned in haste to a sudden illness in a factory near by, the employé who took the message having evidently had instructions to run for the nearest medical man. In due time I presented my account to the employer for one emergency visit, which paper was returned promptly with the curt reply written across the back, "We have nothing to do with this."

Now, Sirs, can you wonder that in such circumstances, and with such treatment, some people have a difficulty in procuring medical aid in their hour of need. If the legislature is going to compel us to run to any and everybody who chooses to send for any one of us, then the legislature will have to pay adequate salaries all round to thousands of those who, like myself, can subscribe themselves,

Yours faithfully,

G. P.

Nov. 11th, 1901.

## THE CIVIL SURGEON AT THE WAR.

To the Editors of THE LANCET.

SIRS,—The position of the civil surgeon now serving in the South African war is perhaps the most curiously anomalous one on record. In a national emergency he offered his services; his country eagerly accepted them; he was more than necessary—they could not do without him. The authorities had succeeded in making the Royal Army Medical Corps so unpopular that, always terribly undermanned in times of peace, it was hopelessly inadequate in times of war. Surgeons must be had, and that quickly. Surgeons heard the call and responded nobly. They left their practices, their wives, and their children, not for love of martial glory or yet for greed of gain, but out of sheer pity for poor suffering humanity. They had not only the bullet to fear, they had to fight the deadliest disease as well. It has never yet been realised that they, of all others, have made the most sacrifice for their country and will receive the least reward.

The civil surgeon has no position; he holds no status in the army; he is not even granted the temporary rank that rejoices the chaplain's heart. Non-commissioned officers and men of the Royal Army Medical Corps pass him by without salutation—they are frequently guilty of incivility. The civil surgeon has come without a wedding garment, so to speak, and his very existence is hardly officially recognised. Some assert that he is well paid for his work. Let us see. When he signs his contract with the War Office he is given a list of things that a kindly, fatherly Government "advises" him to get—a khaki uniform is one of the items. If he wants to walk about Africa in a frock-coat and top hat the kindly Government will not stop him; it does not *command* a uniform any more than it *commands* a waterproof sheet and a flannel shirt, but it gently "recommends" what are absolutely unavoidable necessities. Thus does it slide out of its responsibilities instead of making a proper grant for the purpose.

At the end of the war the civil surgeon is presented with a "gratuity" of £60 and is sent home to his family very much the worse for wear and tear, with a shattered constitution and very ragged clothes. The £60 is not lost upon him, but, unfortunately, it has "gone before" in providing the above-mentioned equipment. A chaplain receives £100—one wonders why, for his services cannot be compared to the hard round that falls to a surgeon's lot. Day and night he is ever at work. For this he receives £1 per day, 3s. 6d. field allowance, and 1s. 6d. for servant, but he has no *Colonial allowance*. In view of the extraordinary expenses of South African life, where things are 100 per cent. dearer than at home, all other officers are given this Colonial allowance, but the civil surgeon has to buy his eggs for breakfast out of his own pocket should he want them (they are 9s. 6d. a dozen) or go without. An experienced miner can earn from £50 to £70 per month and cannot live in great extravagance on that. No professional man should go out to Africa in any capacity at all unless he is absolutely assured of an income of at least £500 a year.

I am, Sirs, yours faithfully,

A CIVIL SURGEON.

Nov. 11th, 1901.

## THE POOR AND THE PLAGUE IN GLASGOW.

(FROM OUR SPECIAL SANITARY COMMISSIONER.)

THE fact that some cases of plague have again occurred in Glasgow renders all questions of sanitation in connexion with that great city and port of more than usual interest. Dr. A. K. Chalmers, the medical officer of health, in his able and exhaustive report on the cases of plague which occurred in Glasgow during the autumn of 1900, says: "In the whole range of plague literature no feature in the spread of the disease is more uniformly insisted upon than its association with local conditions of grossly defective hygiene." Further, we are reminded that of the dustmen engaged in disinfecting dwellings in Bombay it was only those who lived in bad sanitary conditions who contracted the disease. Then Mr. James Cantlie has related that the eight Chinese students who acted as attendants in a plague ward at the Hong-Kong Hospital were free from the plague, though their relations living at home in less sanitary surroundings did suffer. But to return to Glasgow, Dr. Chalmers explains that the majority of the houses where plague occurred were hotbeds of vermin and that in one of these tenements, registered as large enough to hold only four persons, there were eight tenants. The disease, fortunately, was stamped out, but after a lapse of some 12 months it has reappeared, and though this time again it does not seem as if it were going to spread, still it is impossible to avoid feeling some anxiety. It is true that Glasgow has acquired a high reputation for its spirit of enterprise in matters relating to sanitation, but in regard to immunity from epidemic disease it is not so much a question of how much has been done as of how much there is yet to do. Many improvements may be achieved and yet so many defects may still remain that a sense of security cannot be justified. This is actually the case at Glasgow. At the meetings of the British Association, and of the International Congress of Engineers, and at the Conference of Municipal Representatives on the Housing of the Poor recently held in Glasgow and described at some length in THE LANCET,<sup>1</sup> much was said which clearly indicated that the corporation of Glasgow itself was in no wise satisfied with the existing condition of the dwellings of the poor; indeed, a mere casual stroll through some of the streets, especially on the south side of the Clyde, where most of the cases of plague occurred, is sufficient to make it evident that there still remains in this great and prosperous city an appalling amount of poverty, squalor, and dirt. Then if, further, some of the houses are visited, especially at night, it will be seen that, in spite of laws and regulations, sanitary inspectors, and private philanthropy, overcrowding still prevails and this on such an extensive scale as to create a serious public danger. On the other hand, if the record of work done is studied it seems very creditable, but unfortunately it does not suffice.

The Lord Provost, Dr. Samuel Chisholm, was able to explain to the British Association that 25 years ago there was in central Glasgow a great accumulation of narrow streets, dismal lanes, and filthy closes "where disease and death held high carnival, and vice and crime lifted their heads unabashed." But special Acts of Parliament have been obtained and the larger portion of this district has been reconstructed and the remainder is being dealt with. As a result, the death-rate, which in 1876 was 27.4 per 1000, is now 21.1 per 1000 for the whole town. But the death-rate of the central district was 40 per 1000, and it is still 30 per 1000. In the same interval the area of the public parks has been extended from 370 to 1055 acres and the Health Department has provided 19 open playgrounds for children. At the same time the population has increased from 510,000 in 1876 to 761,152 in 1901, so that there is much greater need of open spaces. To deal with this large population no less than 225 persons are now employed on the sanitary staff of the corporation, and yet overcrowding cannot be altogether prevented. Nevertheless, improvements are effected. For instance, the number of nuisances recorded in 1876 amounted to 13,406 and in 1900 there were no less than 44,148 complaints.

<sup>1</sup> THE LANCET, Oct. 5th, p. 943, and 19th, 1901, p. 1081.

These figures testify to the greater activity of the sanitary inspectors; education in regard to sanitation also has evidently progressed, for there is no longer so much inclination to resist proposed sanitary improvements. Thus, though in 1876 a much smaller number of nuisances were reported, it was necessary to take legal proceedings in 119 cases, while in 1890, though there were more than three times as many nuisances reported, it was only necessary to prosecute in 20 cases. In regard to common lodging-houses there has also been a marked improvement. In 1887 there were 101 common lodging-houses in Glasgow, with beds for 6273 lodgers. Many of the worst, the smallest, the dirtiest, and the most unsuitable have been swept away, and the corporation has set a good example by building seven large model lodging-houses and by thus competing with private enterprise has helped to raise the standard of accommodation. Now there are only and in all 69 common lodging-houses, but they are larger and better equipped and accommodate 9497 lodgers.

A system of what is called ticketing small dwellings has been introduced which should be productive of much good. This means that such dwellings are measured and a ticket or inscription is placed outside the door stating the cubic capacity and how many persons may be allowed to sleep in the dwelling. Six inspectors are employed all the year round to visit these places during the night. They work in pairs, so as to have corroborative evidence, and the owners are summoned when overcrowding is detected. It is claimed that this has contributed to reduce the prevalence of typhus fever, but there were 72 cases of typhus fever in the year 1900. Six female inspectors visit low-class dwellings during the daytime and seek to persuade the female householders to keep their homes clean and in good sanitary condition. Other inspectors are daily engaged in testing drains. It is a wonder how with so much supervision so many sanitary defects should still exist. The fact is, that no amount of inspection can alter economic conditions or convert thriftless drunkards into sober and domesticated men and women. Thus I had no great difficulty in finding houses that presented all the appearances of fever-dens. The greatest evils arise in what is termed the farmed-out houses—namely, rooms more or less furnished and let out at exorbitant rents to the thriftless and disreputable poor. These are often very old houses and altogether unsuited for the purpose. The first house I visited, situated in the centre of the city, was approached through a narrow backyard some four feet wide. On the left-hand side there was the back of a house abutting on to a broad street, and on the ground floor of this house there was a small shop where cheap pastry was sold. At the far end of the backyard there was a round tower containing a winding stair leading up to the furnished lodgings. As far as I was able to ascertain there were neither water-closets nor a water-supply inside this house. In the yard at the foot of the tower there was a water-tap and by the gully under the tap there was some faecal matter. Within two or three feet of this filth a door was left open to give light and air to a small bakery where the cakes were made for the shop which had its back door abutting on to this narrow yard. A number of cakes were exposed on trays to the effluvia and dust from this yard and, of course, the dust readily adhered to the jam and sticky moist sugar coating of these so-called delicacies. This matter of the dust is all the more serious as there was also in this yard an open dustbin in which the inhabitants of the "farmed house" empty pails containing the faecal matter which they bring down from their rooms. It is true that next to the dustbin there is a closet, but its door was locked and I was assured by some of the inhabitants of the house that they never went to the closet but used pails which they emptied in the dustbin. The presence of soil close to the water-tap showed that some of them did not even resort to this expedient. The existence of a bakery in the midst of such surroundings seemed to me anything but safe; but the insecurity arose out of the habits of the people rather than from any structural defect.

On attempting to penetrate the tower and climb the stairs I found the way blocked by two wretched women, one of them holding an infant in her arms. They explained that they were there for shelter. They had no home and no furniture, and the house-farmers would not let a room to the woman with the child for less than 1s. a day and she had no money and no work. On the other hand, I was strongly advised not to give her any money, as she would only spend it in drink; and thus I was face to face with the housing problem

in its most sinister aspect. It seemed preposterous that there should be nothing between the workhouse and the exorbitant charges of the house-farmer. Doubtless the room which was offered to this woman for 1s. per night might have been obtained for 5s. a week, but she had neither the 1s. nor the 5s. I ultimately gained access to one of the rooms let for 5s. a week. It contained an extremely filthy bed, two wooden chairs, and a sort of dresser or chiffonnier fixed to the wall. The laths and plaster were dropping from some portion of the walls and ceiling and there was only one very small window in the roof which formed part of the ceiling of the room. In the little backyard of the house next door I found that the closet was not locked. It was a pail-closet and it was in a very filthy condition. A little further on I entered another farmed house where I came upon a little girl with pail and brush busily scrubbing the stairs. The stalwart landlady lived on the premises and was on the watch. She swooped down upon me and in a bellicose tone of voice volunteered the information that she did not tolerate a speck of dirt in her house. But I had already succeeded, before my presence was discovered, in penetrating one of her tenant's rooms and it was not a speck but a great deal of dirt that I found there. The appearance of this room was most deplorable. On all sides there were in this old building big rafters, strange and dark corners where dust and rubbish accumulate, and microbes could flourish safe from the danger of direct rays of light or sunshine. But the landlady now hastily bundled me into her own room which was clean enough and quite free from any appearance of poverty or neglect. On the contrary, there was a perplexing accumulation of superfluous furniture that gave the room the appearance of a store rather than of a dwelling-place. All these evidences of prosperity were in painful contrast with the misery prevailing in her tenants' rooms. The landlady, however, did not view the situation in that light and seemed to think that she deserved much praise for managing matters so well. In the house opposite there was certainly no one cleaning the stairs, and there was evidence of much greater neglect. Here also the stairs were within a tower and in the angle formed by one side of the tower and the wall of the house there was a little window which was used for throwing out all manner of refuse into the backyard. A good deal of this had stuck to the side of the wall and was hanging down and formed festoons of garbage. The sinks and water-pipes were situated in the same angle. The few panes of these staircase-windows that had not yet been broken were thickly coated and obscured by the dust and dirt of ages. In the yard below there was faecal matter on all sides and the closet and dustbin were inexpressibly filthy. On the other hand, I was glad to note that several houses in this neighbourhood had been condemned and were already deserted by their former inhabitants.

What, however, will become of the dwellers who are driven out of such places? It was clearly shown at the Conference on the Housing Question that no provision had been made for them. I visited some of the dwellings built by the corporation and it is quite clear that these do not meet the most pressing need. For instance, at the Collins-street dwellings the rent for two unfurnished rooms is £1 1s. 2d. per month. It is true that there is not much furniture required, for the alcoves are provided with a wire mattress fixture which makes a good bedstead. Therefore, a mattress, some bedding, a table, chairs, and cooking utensils would suffice to furnish these tenements. A dresser, a coalbox, a sink, and a cooking-stove are also provided, and there is a wash-house with copper-boiler shared between eight tenants. This is all very well, but the tenants, though poor, belong to a much more respectable class than those who inhabit the farmed houses in the bad slums. The same objection applied to the corporation tenement houses in St. James's-road. Here the average annual rental for two rooms is £8 2s. per annum, and here some of the old abuses are commencing to creep in. For instance, I found a widow and her daughter shared one room and sub-let their other room to an adult male lodger. In another case, where there was space for two children, I found two adults. They had come in as children, but were now adults, and the caretaker did not like to break up the family by giving them notice to quit. It is difficult to be harsh on these poor people, but nevertheless these are infringements of the sanitary regulations laid down. If this occurs among a really worthy and respectable class of tenants, what must be

the state of affairs with the disreputable and the submerged residuum of the population?

Mr. William C. Menzies, manager of the City Improvements Department, in a report dated Nov. 15th, 1900, says that at that time his department had provided 373 one-roomed tenements, 853 two-roomed tenements, 138 with three rooms, and 11 with more than three rooms. In all there were 1375 tenements, and of these 467 were, he claims, suited for the poorest classes, as there were single-roomed tenements at £5 and two-roomed tenements at £8 2s. per annum. But there are a number of married men who do not earn £1 a week, whose wives cannot earn anything because they have to attend to their young children, and who cannot out of less than 20s. feed and clothe themselves, buy a little furniture, and pay 2s. a week, or £5 a year, rent. Even if they succeed in doing this then they have only one room to live, cook, and sleep in, and this is not enough if there are several children. Since the publication of Mr. Menzies' report the number of tenements has been increased to 1455. Then there are old houses that have not been pulled down but have been purchased and repaired by the corporation, and these are subdivided into 116 one-room, 123 two-room, and 93 three-room tenements. Altogether, and counting the seven municipal common lodging-houses, the Family Home, and the tenement dwellings, the corporation now lodge in all 11,875 persons. The minimum charge for a bed in a common lodging-house is 3½d. per night. The minimum rents are £4 10s., £6 16s., and £12 9s. per annum for one-, two-, and three-roomed tenements, and the maximum charge is £8 15s., £14, and £21 respectively. The position, therefore, stands thus. The population of Glasgow according to this year's census is 753,766. The "submerged tenth," therefore, amount to 75,000. A few of this class may be counted among the 2430 occupants of the seven municipal common lodging-houses. Probably not one among them can be included in the 7000 or 8000 tenants inhabiting the corporation tenement dwellings. It is these 75,000 who constitute the gravest danger to the community. It is among them that the plague will spread most rapidly should it obtain a firm foothold in Glasgow, and it is from them that it will extend to the other and more fortunate classes. Then, after all, is the term "submerged tenth" correct? To judge from the deplorable, sordid, bedraggled aspect of the population seen in the streets of Glasgow, it might be questioned whether the proportion of the submerged does not exceed a tenth of the inhabitants. Whether submerged as the consequence of drink, idleness, vice, or as the result of unmerited and unavoidable poverty, the physical facts remain the same. Whatever may be the moral aspect of the question, and though some may have but themselves to blame, these human wrecks are a perpetual menace and danger to the whole community. With the plague reappearing in Glasgow this problem must be faced, nor has there been any attempt to burke this necessity. As already mentioned, and as described in previous issues of THE LANCET, the subject has been very fully discussed at Glasgow. What action, then, will now be taken?

## NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

*The Plague Epidemic.—An Important Addition to the Lady Dufferin Victoria Hospital in Calcutta.*

FLUCTUATING weekly returns characterise the present recrudescence of the plague epidemic throughout India. Last week there were 8372 deaths, while the week before there were 8551. The Bombay Presidency returned 7372 deaths; Bombay city, 180; the Punjab, 248; and the Mysore State, 392. For the corresponding week last year the total deaths for the whole country were only 2505. During the past week there has been an increase in the Mysore State and in the Punjab. Elsewhere the disease is slumbering.

A Christian annexe has lately been put to the Lady Dufferin Victoria Hospital in Calcutta. The hospital is to consist of wards for female native Christians and children. Two wards are to be set aside for emergent and maternity cases where females of every class, creed, and nationality seeking admission will be received. The building is detached from the main hospital, but is worked by the lady superintendent and her staff.

Oct. 26th.

## BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

### *A Defunct Sanatorium.*

THE tendency of education among all classes in the present day is the exercise of intelligence to suit their own needs and requirements. This has found a singular exemplification in the failure of the sanatorium at Sutton Coldfield. The land and buildings of this admirably-adapted institution were given in 1896 for the purpose of accommodating a special class of patients. It was estimated that patients would contribute 10s. 6d. a week during the time that they were present, and that from other sources also a profit would be obtained which would well meet the establishment expenses, any deficiency being made up by the funds allocated from the Hospital Saturday and Hospital Sunday organisations. In the year 1900 it was found that the total deficiency, including the contributions from these two sources, amounted to £277 1s. 11d. The committee, seeing that it was impossible to maintain the institution on the original lines, agreed to sell the land and buildings to the town council of Sutton Coldfield for the sum of £9000, and a Local Government Board inquiry has sanctioned the purchase. The reluctance of patients to avail themselves of the advantages of this place has arisen largely from the fact that they prefer to go to seaside places, and the establishment of such by the Hospital Saturday Fund at Llandudno has drawn them in that direction where the convalescent institutions are under the control of this fund. It is proposed to add 20 more beds to the sanatorium at Blackwell with part of the proceeds of this sale to the amount of £6000 which will in addition provide a winter garden for male patients and allow of the reconstruction of the drains. Therefore, though success has not been associated with the benevolent intentions of the donor on the lines originally laid down it will come in another form upon a wider and more appreciated basis.

### *Hospital Saturday and Sunday Funds.*

The board of delegates in connexion with the Birmingham Hospital Saturday Fund met on Oct. 30th, when cheques were given to the various medical charities for the amounts apportioned. The committee take pride in the equipment and organisation of this fund, which, with the exception of some 4 per cent. for management, collection, and distribution, is all given to the medical charities of the city. The amount of this year's collection was stated to be £17,285, further amounts having yet to come in. The street collections have been abandoned this year. The various cheques were then handed to the representatives of the different institutions. The Hospital Sunday collections this year go to the General Hospital. The amount so far received has been £4192, but the total has not yet been reached. Some interest has attached to this year's subscription by the fact of an effort being made to mix up the question of the late Consultative Institution with the medical officers of the General Hospital. An attempt to show that the advertisements of titles applied equally to each institution and that the defunct organisation had been much maligned in a recent controversy resulted in some addition being made to the amount given.

Nov. 12th.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

### *The Royal Southern Hospital Dinner.*

THE eleventh annual dinner of the Royal Southern Hospital took place on Nov. 2nd, at the Adelphi Hotel, under the presidency of Mr. Alfred L. Jones (now Sir Alfred L. Jones, K.C.M.G.). The guests included the Lord Mayor of Liverpool, the Bishop of Liverpool, Sir William M. Banks, Mr. Boyle, Consul for the United States of America, Mr. A. F. Warr, M.P., and others. The Chairman, in proposing "The Royal Southern Hospital," said that if there was one thing in Liverpool in which the public took a special interest it was in their noble hospitals. Too much praise could not be bestowed upon the very liberal men who had put the hospitals in their present position. The toast was responded to by Mr. William Adamson (the president of the hospital) and Dr. William Carter, the senior physician. Dr. Carter referred to the widespread prevailing ignorance

of hospital work. As an illustration he said that shortly before Hospital Sunday he received letters from two clergymen, both men of great enlightenment, inclosing circulars which had been sent to them asking them to discriminate in the allocation of their hospital collection in order that no support might be given to institutions where vivisection was practised or where working men were made the subjects of experiments. The circular suggested that almost all the hospitals were infected with these practices. He was, however, able to give the lie direct to these base suggestions. Dr. William Alexander, in proposing the toast of "University College," referred at some length to the splendid work accomplished at its laboratories both in teaching and in original research. He hoped the time was not far distant when University College would be transformed into the Liverpool University. He advocated a closer connexion between University College and all the large hospitals of the city. It was an anomaly that whilst in Liverpool there were three large hospitals, all possessing equal facilities for giving clinical instruction to medical students and all equally well equipped for that purpose, in only one had the full staff university status. He considered that, in the eyes of University College, all these hospitals should have equal privileges and that all should be represented in the medical faculty of the College. Then, and not till then, would University College, which had progressed very rapidly since its foundation, continue to advance in a still greater degree. The toast was replied to by Professor Robert W. Boyce who said that the standard at the Liverpool Medical School was scholarship, and the school could hold its own in that respect. He agreed with Dr. Alexander that the David Lewis Northern Hospital, the Royal Southern Hospital, and the Royal Infirmary were all capable of supporting a medical faculty, and if they had a united medical faculty representative of all three he was sure it would be a great step towards founding a university for Liverpool. The toast of "The Tropical School" was proposed by the Bishop of Liverpool in a felicitous speech and was replied to by Major Ronald Ross, late I.M.S. Dr. Balfour Stewart (who is shortly to leave Liverpool in charge of a new expedition to the west coast of Africa), and Dr. C. J. Macalister. The toast of "The Sister Hospitals," proposed by the Lord Mayor, was responded to by Sir William Banks and Mr. R. W. Murray. The dinner was by far the most successful held since the inception of these popular gatherings and was attended by about 180 gentlemen, inclusive of guests.

*The Liverpool School of Tropical Medicine: Opening of a Students' Hall of Residence.*

On Nov. 2nd a students' hall of residence in connexion with the School of Tropical Medicine was opened by the Bishop of Liverpool. The object of the promoters of the institution (which is situated in Upper Parliament-street) is to provide a temporary home for colonial students, chiefly West African and West Indian, who come to study at the school. The Bishop alluded to the generosity of Sir A. L. Jones, Mr. John Holt, and the Hon. R. B. Blaize who had enabled the hall to be opened free from debt. Already five students are in residence at the new hostel, including two West Africans, one Belgian, one Canadian, and one American. Dr. H. E. Annett is the warden of the hostel. Principal Dale of University College, in moving a vote of thanks to the Bishop and to the three gentlemen above mentioned and also to the warden, spoke strongly of the value of such a home to students brought from abroad into the midst of a great city with its many temptations. Sir A. L. Jones, in acknowledging the vote, spoke of the continued progress of the Tropical School of Medicine which was now spending £5000 a year. They were meeting that evening, he added, to bid farewell to another expedition which was going to leave in a week or two.

*The Proposed Extension of the Birkenhead Borough Hospital.*

The increase of the population of Birkenhead from 59,000 in 1866 (the year in which the Borough Hospital was opened) to 117,000, the present estimated population, will show the necessity for an enlargement of the hospital to enable it to carry on its work in a thoroughly efficient manner. It is manifestly impossible to provide for the treatment of 10,520 cases annually in a building designed for a much smaller number. In addition to this the accommodation for the nurses is much too limited. The committee are appealing for funds to place the institution in a position more in

accordance with present requirements. They have purchased the old fever hospital at the rear of the building, and here they propose to erect a nurses' home at an estimated cost of £7000, which will include furnishing, improvements in the kitchens, which at present are ventilated into the hospital, a mortuary, &c. Last year the ordinary subscriptions to this charity were £937, and the workmen's contributions reached the substantial sum of £1007. At present the committee are confining themselves to extensions which they consider of vital importance to the welfare of the charity; but they hope, with the generous aid of the inhabitants of Birkenhead, in time to add to the existing buildings and to make the hospital worthy of its past traditions.

*The ex-Lord Mayor's Hospital Century Fund.*

Mr. Arthur Crosthwaite (the ex-Lord Mayor of Liverpool) has remitted to the treasurers of various city charities £337 10s. 9d., the balance of the Hospital Century Fund inaugurated by him at the beginning of his mayoralty, making a total of £10,463 10s. 8d. distributed among 23 charities.

*The Arrest of Plague in Liverpool.*

There have been no fresh developments of plague in Liverpool since Oct. 27th. Every precaution is being taken by Dr. E. W. Hooper, the medical officer of health, against the spread of the disease. All boats from Glasgow are carefully examined on arrival at the port. Should no further case arise within the ensuing week it may fairly be assumed that Liverpool will have a clean bill of health as far as plague is concerned. It is satisfactory to note that no panic whatever has taken place owing to the few cases reported in the daily papers.

*The late John Stopford Taylor, M.D. Aberd.*

Dr. John Stopford Taylor, formerly medical officer of health of Liverpool, died on Nov. 11th, in his eightieth year. The late Dr. Taylor was appointed deputy medical officer of health in 1875, succeeding the late Dr. William Trench as medical officer of health two years later. Prior to his appointment as deputy medical officer of health Dr. Taylor was an alderman of the City Council and chairman of the Health Committee. He was considered one of the best debaters of his time in the City Council and made an excellent chairman of the Health Committee. He resigned the medical officership of health about seven years ago, receiving a superannuation allowance upon his retirement. Dr. Taylor was a native of Sheffield, where his father had been in medical practice for a considerable number of years.

*Demand for Civil Surgeons and Dental Surgeons at the Seat of War.*

The demand for civil surgeons in South Africa still continues. Applications have been received by the Dean of the Medical Faculty of University College and Warden of the Liverpool Dental Hospital respectively for civil surgeons and dental surgeons for service in South Africa on terms which are said to be particularly advantageous.

Nov. 12th.

WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

*Precautions against Plague at Bristol.*

UPON the recommendation of the medical officer of health (Dr. D. S. Davies) the Health Committee of the city of Bristol has decided to reappoint the plague sub-committee for the purpose of dealing with vessels trading between Glasgow or Liverpool and Bristol, and with the necessity for making the destruction of rats in the city warehouses a matter of municipal interest. Dr. Davies stated to the Health Committee that he feared that the carriage of plague over sea would never be stopped until the disease was recognised as a disease of animals and dealt with as such, and until the owners of merchant vessels were compelled to rid themselves of the rats which are now permitted to be carried in droves from one port to another.

*Cottage Homes for Adult Paupers.*

The success which has attended the establishment by boards of guardians of cottage homes for children has led to the suggestion that similar homes should be provided for adult paupers. The proposal was recently discussed at a

meeting of members of friendly societies at Cardiff at which several members of the Cardiff Board of Guardians were present. The principal objection to the scheme appears to be the fact that many of the children who occupy cottage homes are able to render assistance in the work of the households, whereas adult inmates would be of little or no service in this direction, so that the cost of management would be considerably higher than that in a workhouse and would, indeed, be prohibitive.

#### *An Isolation Hospital for Kingswood.*

The Urban District of Kingswood in Gloucestershire adjoins the city of Bristol and has a population of 12,000 persons, many of whom are working people. At the meeting of the district council on Nov. 6th the medical officer of health (Mr. C. J. Perrott) reported upon the existence of infectious disease, principally scarlet fever, diphtheria, and typhoid fever, in the district, the death-rate from these three diseases during October having been equal to 4 per 1000 per annum. This unusually high death-rate is very likely to continue unless the district council decide to carry out the recommendation of the medical officer of health to erect an isolation hospital. Mr. Perrott has estimated the cost of a hospital with accommodation for 16 patients at about £800. This must, of course, mean for a more or less temporary erection of iron or wood. It seems a pity that more permanent brick or stone buildings should not be provided, for there is really very little economy in building a temporary hospital which requires to be kept in a proper state of repair at the expenditure often of considerable sums annually; moreover, the Local Government Board will not sanction a loan for the erection of temporary buildings enabling the payment of the initial cost to be spread over a series of years.

#### *Public Health Matters in Cardiganshire.*

Under the chairmanship of Mr. Evan Evans, M.R.C.S. Eng., L.R.C.P. Lond., the Public Health Committee of the Cardiganshire County Council is taking an active interest in the sanitary condition of the county. At a meeting of the council held on Nov. 7th it was decided to recommend the district councils to pay for diphtheria antitoxin used by medical practitioners in treating those patients who cannot themselves afford to pay for the serum, and also that the cost of procuring bacteriological examinations for diagnostic and other purposes should be defrayed by the district councils. In connexion with the latter recommendation a more desirable course would appear to be for the county council to provide for all examinations either by arrangement with an existing institution or by the establishment of a county public health laboratory. Although the population of Cardiganshire is not large—only a little over 60,000—there ought not to be much difficulty in providing a laboratory jointly with the Aberystwith College of the University of Wales.

#### *Royal Albert Hospital, Devonport.*

A special meeting of the governors of this hospital was held on Nov. 4th to consider the proposal of the Devonport Corporation to subscribe £100 per annum to the institution conditional upon the corporation having three representatives as members on the management committee. The condition imposed gave rise to a considerable amount of discussion, as it would modify the existing arrangements of the institution, and the question of subsidising the hospital, even to this small amount, out of the rates involved a matter of principle with several of the subscribers. After a prolonged meeting it was decided not to accept the offer.

Nov. 11th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *The Edinburgh Medical Societies.*

THESE societies have all opened their new sessions. The opening night of the Medico-Chirurgical Society was promising and interesting. The attendance was good and the members remained even for private business. The officials are evidently anxious to put some life into the society. They have carried a proposition that clinical meetings should be held in the Royal Infirmary and the Royal Hospital for Sick Children, and they have obtained the permission of the directors of these institutions to hold such meetings. Professor T. R. Fraser has been elected President

in succession to Mr. A. G. Miller and he will doubtless encourage any efforts directed towards making the society more attractive to all classes of members. At the Obstetrical Society Dr. James Ritchie becomes President in succession to Dr. Milne Murray. The Pathological Club has also resumed its meetings.

#### *Scarcity of Water in Edinburgh.*

Owing to prolonged drought extending over months the people of Edinburgh have been within measurable distance of water famine. Some of the reservoirs are empty; others contain millions of gallons less than the amount which they ought to contain at this season. Quite recently it was stated that there was only a fortnight's supply unless rain came. The city has been on short rations for weeks. The supply is cut off for a portion of every 24 hours, and houses where the cisterns are small and the consumption is considerable have been without water for hours daily. The rain has come, but it will take many days of constant down-pouring to relieve the anxiety of the Water Trust.

#### *Direct Representation on the General Medical Council.*

Dr. W. Bruce of Dingwall seeks re-election as a Direct Representative and has issued his address to his constituents. Dr. Norman Walker of Edinburgh is formally in the field as his opponent, as is Dr. Charles E. Robertson of Glasgow.<sup>1</sup> Dr. Walker addressed a meeting in Edinburgh on Nov. 11th. The chair was occupied by Dr. G. A. Gibson, and a motion to the effect that Dr. Walker was a suitable candidate was moved by Dr. James Ritchie and seconded by Dr. Alexander James. There were about 60 persons present at the meeting, which was quite harmonious. Dr. Walker's policy may be briefly outlined as follows. He agreed with the Royal College of Physicians of London in favour of the removal of the scientific preliminary subjects from the curriculum into an entrance examination; in regard to the professional examinations he thought that the Council ought to see to their being levelled up; he objected to "drawing-room" lectures to women and the granting of midwifery certificates on such terms; as regards the dispensing of drugs he did not see that that could be interfered with; and as to the sale of scheduled poisons by unqualified assistants of medical men he entirely agreed with the position which the General Medical Council had taken up.

#### *Glasgow University.*

The adjourned meeting of the General Council of the Glasgow University was resumed on Nov. 6th. The Very Reverend Principal Story presided. The council was occupied for the most part with the consideration of reports from sub-committees dealing with the legal and medical faculties. The chief feature of the recommendations dealing with the medical ordinances was a somewhat radical suggestion proposing the development of practical classes at the expense of the present courses of systematic lectures. The report was moved by Dr. J. K. Kelly and seconded by Dr. D. C. McVail. It led to some discussion, but there was no active opposition and in the end it was adopted by the council. In relation to the question of practical teaching in midwifery Dr. Munro Kerr drew attention to the necessity for extending and improving the clinical opportunities offered by the present maternity hospital. He moved a proposition to the effect that the council should urge the University authorities to promote the development of a midwifery school in connexion with, or independently of, the existing hospital. This was seconded by Professor Murdoch Cameron, who said that he had long been desirous of a movement in this direction and had taken some practical steps to inaugurate it. From the Bellahouston trustees he had been promised a grant of £5000, from Lord Overton £5000, from Sir Charles Tennant £500, and from other sources sufficient to raise the total to £11,000. The foundation of an adequate maternity hospital was, he considered, necessary not only for purposes of clinical teaching but also directly in the public interest. It was needed both to meet the necessities of the poorer classes and to fit the medical student for responsible duties which almost certainly would come to him in his earlier practice. Professor Cameron strongly supported the proposal for the establishment of a large and efficient school of midwifery as a part of the University medical faculty and hoped that in it there would be taught both medical graduates and trained nurses. The Council unanimously approved of

<sup>1</sup> Dr. Robertson's and Dr. Norman Walker's addresses will be found at p. 1364 of our present issue.—ED. L.

the motion, which will therefore be sent as a recommendation to the University Court.—The November graduation ceremony took place on the 7th. Among the graduates were 19 who received the degree of M.D. Mr. David Louis Cairns, M.B., Ch.B., was awarded "honours" for his thesis, which was entitled "Researches on the Agglutinating and Prophylactic Properties of Blood-serum in Cases of Plague, with Observations on the Hematology and Bacteriology of the Disease." The following gentlemen received the degree "with commendation"—viz.: John Aitken, M.B., Ch.B.; Arthur J. Ballantyne, M.B., Ch.B.; George Coates, M.B., Ch.B.; John Henderson, M.B., Ch.B.; and James D. R. Munro, M.A., M.B., C.M. Among those whose who received the ordinary degree were Miss Agnes Forbes Blackadder, M.A., M.B., Ch.B., and Miss Eva M'Call, M.B., Ch.B. The new graduates in the medical faculty included 24 who were capped M.B., Ch.B., and one who was admitted as M.B., C.M. Among the former were five of the lady students from Queen Margaret College.—The Senate are continuing during the present session the course of free lectures open to the general public, the hour being changed from 5 P.M. to 8.30 P.M. The lecturers are to be Professor Bradley Smart, Professor Raleigh, and Professor Bower, with Dr. T. H. Bryce, whose subject is to be "Prehistoric Man and his Monuments in the Island of Arran."

#### *Glasgow Hospitals.*

The Exhibition which has been such an important feature in the social life of Glasgow during the past six months and has now closed with a surplus of some £80,000 has brought indirectly a financial contribution to the Western Infirmary. The Exhibitors' Club has also closed with a surplus and this has been presented to the infirmary for the purpose of providing the apparatus necessary for the Finsen-light treatment. The scheme for the reconstruction of the Royal Infirmary appears to be in complete abeyance. Arrangements are in progress for the building of new surgical theatres and for the improvement of some of the internal arrangements of the wards, but the more ambitious proposal remains for the present, at all events, in a state of suspended animation. It is understood that Dr. Moses Thomas who has for 34 years been the medical superintendent of the infirmary is to retire at the close of the present session with an allowance of £400 per annum.—Dr. Landel R. Oswald has been appointed physician-superintendent of the Royal Lunatic Asylum, Glasgow, in succession to Dr. Yellowlees. The position is worth £1000 a year with a free house, &c.—The Glasgow Parish Council has elected Mr. John Carswell to the charge of mental patients in the new eastern district hospital.—It has been decided to discontinue the publication of the Glasgow Hospital reports.

#### *Municipal Elections in Glasgow.*

The recent municipal elections in Glasgow have proved disastrous to the medical candidates. Among the retiring councillors who sought re-election were two members of the profession and each of these failed to carry the verdict of the electors.

#### *The Plague in Glasgow.*

There have been no further cases of plague in Glasgow, and the four patients who are in hospital are making satisfactory progress. The position was discussed in the town council on Nov. 11th, and it was resolved that plague should be included among the diseases compulsorily notifiable until Dec. 31st, 1902. One of the councillors wished to postpone this resolution until a further opinion had been obtained as to the nature of the cases at present in hospital. The council, however, were content with the opinion of their own medical advisers and resolved accordingly. The Lord Provost expressed the hope that the citizens would assist the authorities in getting rid of the rats by which the plague, in the view of the medical officer, may be spread. There is at present one case of small-pox in hospital and enteric fever has recently assumed somewhat disquieting proportions.

Nov. 12th.

### IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Royal College of Surgeons in Ireland.*

No less than 15 candidates have presented themselves for the examination for the Fellowship of the Royal College of Surgeons in Ireland which commences on Nov. 18th.

#### *Precautions against Plague.*

Following the advice of Sir Charles Cameron, the Public Health Committee of the Corporation of Dublin have decided on dealing with one of the elements of danger connected with the spread of bubonic plague. They are about to employ a rat poison known as "Haynes' desiccative paste," which not only kills these animals without delay, but also by its peculiar action dries up the flesh and mummifies it.

#### *Irish Workhouse Association.*

A conference of those interested in Poor-law administration was held in Belfast on Nov. 7th and 8th, under the auspices of the Irish Workhouse Association, Lord Montague presiding. On the first day Dr. J. M. Rhodes (Didsbury), President of the Poor-law Medical Officers' Association of England and Wales, read a paper on the Treatment of Imbeciles and Epileptics, at the beginning of which he showed by statistics that the proportion of insane per 10,000 was greater in Ireland than in any other European country, Spain being lowest with seven, Ireland's proportion being 46. The cases of certified insane in asylums in Ireland had risen in number from 8667 in 1880 to close upon 16,000 in 1899. In Great Britain and Ireland the State had done nothing to prevent the multiplication of the unfit (the feeble-minded and epileptic)—unless they considered the workhouse adequate. Dr. Rhodes recommended that there should be more brightness and cheerfulness in the workhouse wards, and said that it was a disgrace to our civilisation that there was in the United Kingdom no single State institution for the sane epileptic except the workhouse, and no class deserved more pity. A discussion followed, terminated by a vote of thanks to Dr. Rhodes for his paper. A paper and discussion on Casuals and Able-bodied Tramps followed. On the second day of the conference Mr. Robert Hall, visiting surgeon to the Belfast Union Infirmary, read a paper on Nursing in Infirmarys. He showed the immense strides which had been made in the Belfast Union Infirmary, pauper helps having been got rid of, and there being now a staff of 107 properly trained nurses. A new home to accommodate 140 nurses was in course of erection which in the near future would be fully occupied. He pointed out the method of appointing probationers in Belfast, the training they received, and the examination they had to pass, and he said that the Local Government Board accepted the six months' training of their maternity department in the infirmary—a most valuable matter for nurses. He spoke of the importance of the guardians of small unions taking care that adequate quarters and suitable food were provided for the nurses, and that their health was properly looked after. He praised the Local Government Board for their efforts to improve workhouse nursing and said, in conclusion, that the sick poor of Ireland could now enter the great majority of workhouse infirmaries with the full assurance that the nursing they would receive, and which they had a right to expect, would be of the highest possible standard. An interesting discussion, followed, and amongst the speakers, Mr. E. C. Thompson, M.P., surgeon to the Omagh County Infirmary, complained that the Local Government Board were not assisting the county infirmaries in connexion with nursing. He held that the whole system, not only of workhouse hospitals but of workhouses themselves, required the attention of the people of Ireland. Mr. G. L. St. George, surgeon to the County Antrim Infirmary, Lisburn, has written to the press complaining that nurses who have been thoroughly trained there and tested as to their capacity by extern examiners from the staff of the Belfast Royal Victoria Hospital are not considered by the Local Government Board fit to act as charge-nurses in Ireland because they have not over 100 beds and a house surgeon, though he lives only five doors from the hospital. Owing to these restrictions of the central authority in Dublin, people think, Mr. St. George alleges, that his nurses are not properly trained, while he contends that in a small hospital a nurse receives a better and more thorough training than in a large one.

#### *The Uster Medical Society.*

The first meeting of the session 1901–1902 was held in the Museum, Belfast, on Nov. 7th, when the new President Professor W. Whitla, gave his inaugural address on Some Worthies on the Membership Roll of 1886. He gave interesting biographical sketches of members of the society who had died since that year. A vote of thanks, on the motion of Professor J. A. Lindsay, seconded by Dr. H.

Whitaker, was accorded to the President for his address. The annual dinner is to be held on the evening of Thursday, Nov. 21st. Four new members were elected at the meeting.

#### *The Belfast Medical School.*

The total number of students attending the Royal Victoria Hospital this session (1901-1902) is 143, being 12 less than last year. The number of medical students at Queen's College, Belfast, is also slightly less than last year, but in the Arts Faculty there is a much greater drop in the number of entries.

Nov. 12th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *The Provincial Hospital Surgeons' Union.*

I HAVE already mentioned<sup>1</sup> that Dr. Bousquet of Clermont took steps to convoke a meeting of provincial hospital surgeons just before the sitting of the Congress of Surgery for the discussion of the system whereby workmen injured in the course of their employment are admitted into the hospitals and treated at rates only drawn up for indigent patients. The meeting was held on Oct. 22nd, and Dr. Bousquet, after thanking his colleagues for their generous response to his appeal, proceeded to explain the object of the meeting—namely, the violation of the law concerning accidents to workmen, which operated so disastrously for the whole of the medical profession. The facts were these. When a workman was injured to any serious extent he was sent to a hospital where he was treated at a rate imposed solely for indigent patients. When this rate had been paid the employer, who alone was responsible by the new law for the expenses of the treatment of his men, considered that he was quite absolved from the payment of any more fees. The medical man who would have treated the patient had he not been taken to hospital was thus deprived of his fee and the hospital surgeon who did the work got no advantage out of it either. Thus if the loss was reckoned throughout the entire medical profession the figure mounted up to many millions of francs; for instance, in the department of the Seine alone the loss counted up to 15 million francs. Dr. Bousquet asked his colleagues to unite in putting an end to an abuse so harmful to the interests of the medical profession. Dr. Lande said that the members of hospital staffs were wrong not to lay more stress upon the regulation for hospital administration which provided that a hospital should be kept for the poor and that patients who were not poor should be made to pay for professional treatment and medicine in addition to the cost of food and lodging. The speaker pointed out that to treat patients who could pay at the rate of poor persons—a rate which varied from two to five francs per diem—was prejudicial to the interests of the Assistance Publique. For instance, a patient in a hospital on whom laparotomy had been performed cost the hospital, only for the expenses of the operation, the dressings, and the drugs, at least 150 francs, while if he stayed in the hospital for one month at three francs per diem he paid 90 francs. Therefore the deficit had to be made up out of the funds for gratuitous medical assistance—that was to say, practically by the poor themselves. After some further discussion the meeting unanimously passed the following resolution in conformity with the decisions arrived at by the Congress of Deontology:—

That this meeting of provincial hospital surgeons unanimously pledges its members to demand from their various Members of Parliament a new reading of article 4 of the law of 1898.

A committee of four members was appointed to form a deputation to the Minister of the Interior to lay before the Director of the Assistance Publique the grievances of the medical profession and to try their utmost to get him to apply, by means of administrative committees under himself, the strict regulations of the Assistance Publique. Resolutions were also adopted to the effect that the permanent Committee for Professional Medicine should by circular call the attention of hospital administrations to the abuse of hospitals caused by the treatment of injured workmen and asking them to make such persons pay a higher rate than that appointed for poor patients; and that the fees of the medical men and

apothecaries should be paid in separately to the hospital administrations who could then divide them among those to whom they were owed, unless the hospital authorities preferred that the medical men and apothecaries should be paid directly. If these reforms were not carried out it was decided that every hospital surgeon before undertaking the treatment of a patient should inform the hospital authorities that his fees were not included in the sum paid for the residence of the patient in hospital, and that he should reserve the right to sue for such fees unless they were paid to him through the intermediation of the hospital authorities. The proposed alteration of Article 4 of the law of 1898 will make it run as follows:—

The contractor is the person who shall be always and directly responsible for both preliminary medical expenses such as certificates and attendance, whether given at the injured party's home or at the hospital, for expenses of drugs, for hospital expenses, and any special apparatus furnished by the hospital or any other institution, and finally for burial expenses. These last shall not exceed 100 francs at the most. The injured party, whether directly after his accident or at any time during his course of treatment, shall be at liberty to choose, either by himself or his representative, his medical man or his apothecary from those who live in his own neighbourhood. In case of dispute the amount of the bill for medical and pharmaceutical expenses shall be fixed by the magistrate of the parish, according to the workman's tariff in use in that parish. The contractor on his side can submit to the magistrate the name of a medical man who will have the right to make periodical inspections of the patient so long as such inspection does not interfere with his treatment.

#### *The Hygiene of Railway Tunnels.*

The Paris Prefect of Police, M. Lépine, recently requested M. Gréhant, Professor of Physiology at the Museum, to analyse the air in the tunnels and carriages of the Metropolitan Railway. M. Gréhant's report has just been issued. He states that, beginning from Oct. 18th, he made 100 analyses of the air in the carriages and obtained some important results. Even in the second-class carriages, which are generally packed, the carbonic acid never reached 1 per cent. and the oxygen was diminished in equivalent proportion. The air samples taken outside the carriages and in the intervals between the tunnels contained no excess of carbonic acid and very nearly the normal proportion of oxygen. M. Gréhant concludes from this that the sole cause of the fouling of the air is the respiration of the passengers, for the trains, which are very frequent and are always travelling quickly in opposite directions, act as powerful ventilators and effect a change of air through the entrance and exit doors of the stations.

Nov. 12th.

## ROME.

(FROM OUR OWN CORRESPONDENT.)

#### *The Health of Rome in 1900.*

THE annual abstract of the Statistical Bulletins for the commune of Rome lately issued reveals a considerable increase in the death-rate of the city for 1900 over that of the previous year. In 1899 the exceptionally low rate of 17.2 per 1000 inhabitants was recorded, whereas in the succeeding year it rose to 20.2 per 1000. The report does not make it clear how the latter result was arrived at, but it is certain that the former is understated owing to some unfortunate blunder in estimating the population which has never been satisfactorily explained. By the census taken on Feb 10th, 1901, it was definitely ascertained that the total number of inhabitants was then 467,992, whereas the official estimate of the population on Dec. 31st, 1900, was no less than 521,159. On the 512,423 at which it had been estimated for the corresponding date of 1899 a very considerable reduction would require to be made in order to arrive at the true figures, and an equivalent increase must therefore result in the estimated death-rate. From the following table it will be seen how the death-rate of Rome compares with that of some other large cities of Europe during 1900:—

	Rate of mortality per 1000 inhabitants.		Rate of mortality per 1000 inhabitants.
Brussels ... ..	16.4	Vienna ... ..	20.6
London ... ..	18.7	Glasgow ... ..	21.9
Edinburgh ... ..	19.3	Liverpool ... ..	25.6
Berlin ... ..	19.3	St. Petersburg ...	27.0
Rome ... ..	20.2	Dublin ... ..	27.9
Paris ... ..	20.5	Moscow ... ..	30.0

<sup>1</sup> THE LANCET, Oct. 26th, p. 1163.

The chief cause of mortality was pneumonia, which accounted for no less than 1216 out of the total of 9937 deaths, or 12.24 per cent. of the whole. Next in importance as causes were pulmonary tuberculosis (830 deaths), bronchitis (523), apoplexy (499), measles (253), and enteric fever (248). Influenza was responsible for 154 deaths, syphilis for 128, and malaria for 123. It will doubtless be noticed by many with surprise how comparatively trifling is the mortality from malaria in this city, where "Roman fever" even yet is a name of terror to the majority of newcomers. For every victim claimed by that disease twice as many succumbed to typhoid fever and nearly ten times as many to pneumonia. Beyond all question the winter visitor, not only to the Eternal City but to Italy generally, has much more to dread from the deadly pneumococcus than from the malarial microbe, or even from the ubiquitous bacillus of typhoid fever. Against the latter two he can at least take precautions by avoiding the now well-known causes of infection, and even if attacked can hope for much help from skilful treatment, however severe the seizure may be. But who can tell him where the mysterious diplococcus springs from which breeds an attack of pneumonia? And what chances of recovery can we hold out when the malady assumes that virulent form so frequent in Italy which no remedy appears to control and which often carries off the young and robust with the same startling rapidity as it does the old and feeble? The outbreak of typhoid fever, or rather the extension of the endemic already existing, raised the death-rate from that cause to quite an abnormal extent. Usually the rate of mortality from enteric fever in Rome oscillates between 3 and 5 per 10,000 inhabitants, but in November and December of 1900 it rose to 11.5 and 14.7 respectively. The mean for the year was 4.9, which is higher than anything recorded since 1888, when the relative mortality rose in the month of October to 10.4, and the mean for the year was also 4.9. Gualdi has ascribed the increase in the years preceding 1888 to the influx of workmen consequent on the activity in building which took place at that time, and he considers that a similar cause operated in the years 1898, 1899, and 1900, since the great majority of cases notified in these years occurred amongst the masons and labourers engaged in that class of work. The case-mortality of typhoid fever was 14.5 per cent. out of a total of 1704 cases notified during 1900. The statistics of suicides, of which there were 88, showed a preponderance of male over female deaths in the proportion of nearly 3 to 1 (64 males and 24 females). Of the suicides by males 18 persons threw themselves from heights, while 20 killed themselves with firearms, 13 by drowning, and six by poison. Among the females the favourite way in Rome of putting a violent end to life would appear to be by the first (11 deaths) and the last (nine deaths) of these methods. It appears from one of the tables given in the abstract that the deaths amongst the non-resident population last year were unusually numerous—namely, 1948. In this fact lies the explanation, at least in part, of the augmented mortality. During this "Anno Santo"—or "Anno Sporco" (dirty year) as it was popularly called—Rome was filled with pilgrims from all parts of Christendom who not only added to the death-rate by force of numbers (of which no official record was kept) but doubtless imported the germs of various infectious diseases amongst the permanent residents. The dirty, unkempt appearance and unwholesome odour of many of these visitors suggested such a result, and, indeed, considering their numbers and the length of time over which the presence of these pilgrims extended, one is surprised that the public health did not suffer a great deal more from their invasion.

Nov. 11th.

**SANATORIUM AT DELAMERE**—Manchester has not been long in following Liverpool to Delamere. The first sod of the new branch sanatorium at Delamere, which will be connected with the Manchester and Salford Hospital for Consumption and Diseases of the Chest, was cut on Nov. 2nd by Mrs. Crossley, whose husband, Mr. W. I. Crossley, has been a most munificent supporter of the institution. Indeed, it is owing to his generosity that the sanatorium at Delamere has been made possible. There will be 75 beds in the main building, while the nurses' and servants' home will form a separate block. 65 acres of land with a south aspect have been secured. They are in the parish of Kingsley within the precincts of the forest.

## Obituary.

HENRY SPENCER SMITH, F.R.C.S. ENG.,  
CONSULTING SURGEON TO ST. MARY'S HOSPITAL.

MR. HENRY SPENCER SMITH, who died on Oct. 29th at his residence in Oxford-terrace, Paddington, played an important part in the early history of St. Mary's Hospital. The greater part of his professional education was received at St. Bartholomew's Hospital, where he entered as a student in 1832, and was a pupil of Mr. (afterwards Sir William) Lawrence. To widen his experience he spent several months in Paris, and in 1837 he was admitted a Member of the Royal College of Surgeons of England, after which he held the office of house surgeon at St. Bartholomew's Hospital and surgeon to the Royal General Dispensary, Aldersgate-street. When St. Mary's Hospital was instituted in 1851 Mr. Smith was appointed one of the three assistant surgeons, the other two being, as mentioned in THE LANCET of Sept. 27th, 1851, p. 301, Mr. Haynes Walton and Mr. James Lane. The surgeons of the original staff were Mr. Coulson, Mr. Lane, and Mr. Ure. In 1854 a movement took shape for the purpose of forming a medical school at St. Mary's Hospital, a meeting being held with that object on April 24th, and recognition by the Royal College of Surgeons of England followed in the same year. Mr. Smith was appointed to the important office of dean of the school and for six years he laboured unremittingly at the work in all its details. He had herein an opportunity of showing considerable administrative talent, and the appreciation which his success evoked was shown by the fact that when he resigned the post in the middle of 1860 and was succeeded by Mr. G. G. Gascoyen he was presented by the students with a piece of plate weighing 101 ounces and by the lecturers with a silver-gilt inkstand. For many years he was one of the lecturers on surgery in the school. He was a member and the secretary of the first Government commission of inquiry into the question of venereal disease as occurring in the navy and the army and was also a secretary and a vice-president of the Royal Medical and Chirurgical Society. Mr. Smith was one of the 150 Fellows of the Royal College of Surgeons of England chosen when that order was created in 1843, and the death of Mr. Carsten Holthouse last July left him as the sole survivor of those original holders of the Fellowship. From 1867 to 1875, he was a member of the Council and in 1872 he was elected a member of the court of examiners. Mr. Smith translated from the German "Schwann's Microscopic Researches into the Accordance in the Structure and Growth of Animals and Plants," which was published by the Sydenham Society and for which the translator in 1845 was awarded the Copley medal of the Royal Society. Mr. Smith also translated Professor Bischoff's memoir "On the Periodical Maturation and Extrusion of Ova, independently of Coitus, in Mammalia and Man." Mr. Spencer Smith, who was in his eighty-ninth year at the time of his death, has left a widow and a son and a daughter by a previous marriage.

SIR JAMES WILSON AGNEW, M.D. GLASG.,  
M.R.C.S. ENG.

By the death of Sir James Wilson Agnew, which occurred on Nov. 8th, we are once more reminded of the valuable work done by medical men in a political direction. James Wilson Agnew was born in 1815 and became a Member of the Royal College of Surgeons of England in 1838, graduating as M.D. of the University of Glasgow in 1839. About a year later he went out to Tasmania and practised as a physician in Hobart for some years. From 1877 to 1881 he was a member of the Legislative Council of Tasmania, while from 1886 to 1887 he was Premier and Chief Secretary. He was also for many years a member of the Tasmanian Council of Education. The medical man, even if he follows no other calling but a purely professional one, is a most useful member of the body politic, but when he takes up politics in addition he is often even more useful. We have only to mention the names of Fayrer, Rutherford Alcock, John Kirk, James Mackie, and Jameson—despite the error into which the last-named fell with regard to the Transvaal—to tell how the work of empire has been aided by the toils of medical men. The foundation of our Indian Empire practically sprang from certain concessions granted by the Emperor of Delhi to Gabriel Broughton, a

surgeon of the East India Company. Sir James Agnew added the name of one more medical man to the list and we doubt not that our profession will supply many others who will be in the best sense of the word patriots in that they will strengthen the empire of which they are proud to be free subjects.

#### ALFRED HUTCHISON SMEE, M.R.C.S. ENG., J.P.

MR. A. H. SMEE, who died on Nov. 8th at his residence, The Grange, Hackbridge, Surrey, was a director of the Gresham Life Assurance Society and its chief medical officer. He was naturally much interested in preventive and statistical medicine and contributed many articles and papers to professional journals. He received his medical education at St. Bartholomew's Hospital. Only just before his death he published a volume entitled, "Tables and Diagrams Illustrating the Comparative Death-rates from Various Causes and Various Occupations." The design of the work is to bring out in relief by means of diagrams the comparative rates of mortality experienced under various conditions, the figures for which have already been published, but which as figures cannot be so readily grasped and compared. In addition to his more purely professional work Mr. Smeë was a J.P. for Surrey, a member of the Surrey County Council, a Fellow of the Chemical Society, and a Fellow of the Institute of Chemistry, to which he contributed many papers of chemical interest.

**DEATHS OF EMINENT FOREIGN MEDICAL MEN.**—The deaths of the following eminent foreign medical men are announced:—Dr. Samuel Jones, Professor of Ophthalmology and Otology in the Chicago Medical College.—Dr. J. H. Chievitz, Professor of Anatomy in the University of Copenhagen.—Dr. Nicolas Abaza, a member of the Russian Imperial Council.—Dr. Teodoro Yanez y Font, Professor of Forensic Medicine in Madrid.—Dr. Alvarenga, formerly Professor of Therapeutics in the Rio de Janeiro University.—Dr. Enrique Castro, Professor of Therapeutics in the University of Montevideo.—Dr. Stelzner, formerly Chief Surgeon of the Dresden Municipal Hospital. He was 62 years of age.—Dr. Marcel Nencki, an eminent physiologist of St. Petersburg and formerly of Berne. His published researches covered a great deal of ground and dealt especially with bacteriology, the alkaloids of putrefaction, and ptomaines. He was 55 years of age.—Dr. J. Magaz y Jaime, formerly Professor of Physiology in the University of Madrid.—Dr. Arthur König of the Berlin Physiologic Institute, whose researches on physiological optics are well known, his assistance having been utilised by Professor Helmholtz in the preparation of some of his works.—Dr. A. Villard, a well-known Marseilles physician.—Professor Karl Schuchardt, Director of the Surgical Department of the Stettin Municipal Hospital. He was at one time assistant to Professor Volkmann in Halle. His published papers included several on the surgery of the stomach and the intestines and on cancerous tumours. He was only 45 years of age. The cause of death was septicæmia contracted while performing an operation.—Professor Gustav Veesen, who in early life was a student of Oriental literature and theology under Gesenius, subsequently turning his attention to medicine and practising both in England and Russia, but finally returning to his former profession. He was 86 years of age.

## Medical News.

**UNIVERSITY OF CAMBRIDGE.**—At a congregation held on Nov. 7th the following degrees were conferred:—

*Bachelor of Medicine.*—O. Inchley, St. John's; T. B. Holmes, Gonville and Caius.  
*Bachelor of Medicine and Bachelor of Surgery.*—G. S. Graham-Smith, Pembroke.

A demonstratorship in surgery, under the direction of the Reader, Mr. Joseph Griffiths, is about to be established. The duties will include the care of the collections to be housed in the new Humphry Museum.—Dr. L. E. Shore, of St. John's, has been appointed University Lecturer in Advanced Physiology; Mr. F. F. Blackman, St. John's, University Lecturer in Botany; and Mr. H. O. Jones Jacksonian Demonstrator in Organic Chemistry.—In April and October of the present year 69 candidates presented

themselves for one or both parts of the State medicine examination. 43 obtained the diploma on passing both parts.

**CONJOINT EXAMINATIONS IN IRELAND BY THE ROYAL COLLEGE OF PHYSICIANS AND ROYAL COLLEGE OF SURGEONS.**—The following candidates have passed the examinations indicated:—

*Final Professional Examination.*—(a) *In all subjects:* J. F. Fitzgerald; (b) *Completed Examination:* J. M. Barry, Miss M. E. Bridgford, C. W. Conry, A. D. C. Cummins, S. G. Gorton, W. R. Meredith, S. R. McCausland, F. G. Sharpe, R. C. Vernon, R. O. White, G. B. Wilkinson, F. W. Woods, and T. J. Wright.  
*Diploma in Public Health.*—Lt.-Col. U. J. Bourke, R.A.M.C.; M. J. B. Costello, M.B., R.U.I.; H. A. Dougan, M.B. Dub.; D. P. French, L.R.C.P., L.R.C.S. Edin.; R. Fox Symons, M.R.C.S. Eng., L.R.C.P. Lond.; A. Moore, M.D.; J. H. M. Auley, L.R.C.P. & S. Edin.; C. J. Powell, F.R.C.S. Irel.; and C. L. Sansom, F.R.C.S. Edin.

**FOREIGN UNIVERSITY INTELLIGENCE.**—*Berlin:* Dr. J. Heller has been recognised as *privat-docent* of Dermatology, and Dr. E. Rost as *privat-docent* of Pharmacology.—*Christiania:* Dr. H. A. Schiøtz has been appointed Professor of Ophthalmology.—*Cracow:* Dr. Bochenek has been recognised as *privat-docent* of Anatomy, and Dr. Krzyształowicz as *privat-docent* of Dermatology.—*Marburg:* Dr. Ernst Romberg has been promoted to an Extraordinary Professorship of Medicine, and Dr. H. Bonhoff to an Extraordinary Professorship of Hygiene.—*Rostock:* Dr. Theodor Thierfelder, Director of the University Medical Clinic and the senior member of the faculty, has been obliged to retire on account of the state of his health. Dr. Martius of the Policlinic has been appointed to succeed him.—*Vienna:* Dr. Karplus has been recognised as *privat-docent* of Neurology and Psychiatry.

**EXETER DISPENSARY.**—A special meeting of the governors of the Exeter Dispensary was held on Nov. 2nd to elect an honorary surgeon in succession to Dr. A. W. Kempe, resigned. There were five candidates and eventually Mr. Henry Andrew was elected. One of the governors, in drawing attention to the fact that the institution did not allow canvassing by candidates, said that many governors felt that it was exceedingly undesirable that the merits of any particular candidate should be stated in the local press before the election took place as had been done on this occasion.

**A QUIETER LONDON.**—At a recent Conference upon the Abatement of Street Noises held at 1, Finsbury-circus, London, E.C., under the presidency of Mr. Robert Pierpoint, M.P., it was decided that the petition to the authorities should remain open during the present month, also that a deputation should be appointed to wait upon the Home Secretary, requesting him to facilitate the adoption of more stringent by-laws respecting street-music, street-shouting, and other unnecessary noises.

**PUBLIC SUPPLY OF DIPHTHERIA ANTITOXIN.**—The Public Health Department of Bristol have determined to supply medical practitioners with antitoxin for poor people suffering from diphtheria who are unable to pay for the preparation. Forms on which the application should be made have been supplied to the local members of the medical profession and should be forwarded by them to the medical officer of health (Dr. D. S. Davies).

**BICYCLES AND LEGAL "INFANCY."**—At the Falmouth County Court on Nov. 7th a young man was summoned by a bicycle-dealer for damage to a bicycle. Defendant pleaded that he was an "infant," having been born in 1883. His Honour Judge Grainger gave judgment for the plaintiff, adding that the plea of infancy could not prevail in this case as the bicycle had become necessary for young men in health.

**PORTRAIT OF EDWARD JENNER.**—Messrs. Fletcher, Fletcher, and Co., of Holloway, N., have issued as No. 18 of the Vibrona Art Series of Pictures a reproduction of James Northcote's painting in the National Portrait Gallery of Edward Jenner. The reproduction is a pleasing one, in sepia, on plate paper, and may be obtained for 2s. 6d., post-free.

**LITERARY INTELLIGENCE.**—We have received from the Oxford University Press, ever prompt and admirable in their printing enterprises, a copy of the new Prayer Book containing the prayers for George Prince of Wales and the Princess of Wales, and the new Accession Service which was authorised by Royal Warrant this week.

**PRESENTATION TO A MEDICAL PRACTITIONER.**—Mr. W. A. Dingle, M.D. St. And., L.R.C.P. Lond., M.R.C.S. Eng., was on Oct. 31st presented with a silver fruit-basket and vases, in testimony of his good service to the inhabitants of Finsbury-square, London, E.C., as the honorary secretary of the square committee.

**VACCINATION GRANT.**—Mr. Philip E. Hill, M.R.C.S. Eng., public vaccinator for the Crickhowell district of the Crickhowell Union, has been awarded the Government grant for efficient vaccination for the twelfth time in succession.

**THE BISHOP OF LONDON** will unveil a window in the chapel of the Cancer Hospital, Fulham-road, London, S.W., erected in memory of the late Dr. William Marsden who founded the charity in 1851. The ceremony is fixed for to-day (Saturday, Nov. 16th) at 3 p.m.

**LONGEVITY.**—It is stated on the authority of the *Tribune de Genève* that there has recently died in Albania a man named I-mail Hudgo, who was alleged to have been born in 1741 and was therefore at the time of his death apparently 160 years of age.

**MEDICAL MAYOR.**—At the meeting of the Glastonbury Town Council held on Nov. 2nd it was decided to offer the post of mayor to Dr. Maurice John Doidge, who signified his acceptance of the honour.

**MR. GEORGE MITCHELL WINTER, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., D.P.H. Cantab.,** has been elected an alderman for the borough of Torquay, receiving more votes than any of the other successful candidates.

**DRAINAGE OF TROWBRIDGE.**—At a recent meeting of the Trowbridge Urban Council it was decided to adopt a sewage-disposal scheme for Trowbridge, at an estimated cost of nearly £24,000.

### BOOKS, ETC., RECEIVED.

- ALLEN, GEORGE, 156, Charing-cross-road, W.C.  
Wonders in Monstreland. By E. D. Cumming, author of "In the Shadow of the Pagoda," "With the Jungle Folk." With illustrations by J. A. Shepherd. Price 6s.
- CHAPMAN AND HALL, Limited, 11, Henrietta-street, Covent-garden, W.C.  
Anticipations of the Reaction of Mechanical and Scientific Progress upon Human Life and Thought. By H. G. Wells, author of "Love and Mr. Lewisham," "Tales of Space and Time," &c. Price 7s. 6d.
- FROWDE, HENRY, Amen-corner, E.C.  
Hausa Notes. By Walter R. Miller, M.R.C.S. Eng., L.R.C.P., Church Missionary Society.
- GREEN, WILLIAM, AND SONS, Edinburgh.  
The Accessory Sinuses of the Nose. Their Surgical Anatomy and the Diagnosis and Treatment of their Inflammatory Affections. By A. Logan Turner, M.D., F.R.C.S. Edin. Price 12s. net.
- HIRSCHWALD, AUGUST, Unter den Linden, 68, Berlin.  
Bibliothek von Coler. Herausgeber O. Schjerning.  
Band VII. Grundriss einer Geschichte der Kriegschirurgie. By Prof. Dr. Alb. Köhler, Oberstabsarzt. Price M4.  
Band VIII. Die Pest und ihre Bekämpfung. By Dr. P. Muschold, Oberstabsarzt, Vorstand der Hygienisch-bakteriologischen Untersuchungsstelle des XV. Armee-corps. Price M7.  
Band IX. Die Cerebrospinalmeningitis als Heeresseuche. By Dr. H. Jaeger, Oberstabsarzt, Privatdocent für Hygiene und Bakteriologie. Price M7.  
Band X. Die Therapie der Infektionskrankheiten. By Professor Dr. C. Gerhardt, Geh. Med.-Rath., &c., in collaboration with Dr. Dorendorf, Professor Dr. Grawitz, Dr. Hertel, Dr. Ilberg, Dr. Landgraf, Professor Dr. Martius, Dr. Schulz, Dr. Schultzen, Dr. Stuert, and Dr. Widenmann. Price M8.
- HUTCHINSON AND CO., Paternoster-row, E.C.  
The Hero. By William Somerset Maugham, author of "Liza of Lambeth," "The Making of a Saint," "Orientations." Price 6s.
- KARGER, S., Karlstrasse, 15, Berlin.  
Atlas der Krankheiten der Nase. By Privat-docent Dr. P. H. Gerber. Parts V., VI., and VII. Price 6 marks each.
- KIMPTON, HENRY, 13, Furnival-street, Holborn, E.C.  
The Diagnostics of Internal Medicine: A Clinical Treatise upon the Recognised Principles of Medical Diagnosis, prepared for the use of Students and Practitioners of Medicine. By Glentworth Reeve Butler, A.M., M.D., of Brooklyn, N.Y. Price not stated.  
Manual of the Diseases of Children. By John Madison Taylor, A.M., M.D., of Philadelphia, and William H. Wells, M.D., of Philadelphia. Second Edition, thoroughly revised and enlarged. Price 21s.  
Introduction to the Differential Diagnosis of the Separate Forms of Gall-stone Disease, based upon his own experience gained in 433

- Laparotomies for Gall-stones. By Professor Hans Kehr, Halberstadt. Authorised translation by William Wotkyns Seymour, A.B. Yale, M.D. Harvard. Price 9s. net.
- Kimpton's Pocket Formulary for 1901. By E. Quin Thornton, M.D., of Philadelphia. Third Edition, revised and enlarged. Price 7s. 6d. net.
- LANE, JOHN, the Bodley Head, London and New York.  
The Book of Old-fashioned Flowers and other Plants which Thrive in the Open-air of England. By Harry Roberts, author of "The Chronicle of a Cornish Garden." Price 2s. 6d.
- LEHMANN, J. F., Landwehrstrasse, 70, Munich.  
Lehmann's Medizinische Handatlas. Band IV. Atlas und Grundriss der Krankheiten der Mundhöhle, des Rachens und der Nase. By Dr. L. Grünwald of Munich. Second, revised, and enlarged edition. Price M. 12.  
Sehprobentafeln zur Bestimmung der Sehschärfe für die Ferne. By Dr. v. Ammon, K. Oberarzt und Augenarzt in München. Six test-sheets with explanatory pamphlet. Price M 3.
- LEWIS, H. K., 136, Gower-street, W.C.  
Transactions of the Dermatological Society of Great Britain and Ireland. Volume VII. 1900-1901. Edited by Charles Herbert Thompson, M.D., and Ernest Graham Little, M.D. Price 5s.
- LIPPINCOTT, J. B. COMPANY, Philadelphia and London.  
Photographic Atlas of the Diseases of the Skin. By George Henry Fox, A.M., M.D., of New York. Parts VII., VIII., IX., X., XI., XII. Price not stated.  
Pediatrics: the Hygienic and Medical Treatment of Children. By Thomas Morgan Rotch, M.D., Professor of the Diseases of Children, Harvard University. Third Edition, rearranged and rewritten. Price not stated.  
Principles and Practice of Operative Dentistry. By John Sayre Marshall, M.D. (Syr. Univ.), Dental Surgeon, United States Army, President, Army Examining Board for Dental Surgeons. Price not stated.
- LIVINGSTONE, E. AND S., Edinburgh.  
Handbook of Public Health. By John Orr, M.D., F.R.C.P. Edin., M.R.C.S. Eng. Price 4s. net.
- LONGMANS, GREEN, AND CO., London.  
Transactions of the Clinical Society of London. Volume XXXIV. Price not stated.
- MAULOINE, A., 23, 25, rue de l'Ecole de Médecine, Paris.  
Guide de l'Examen Gynécologique. By Dr. L. Léon Archambault. Price 3fr.
- MURRAY, JOHN, Albemarle-street, W.  
A First Course of Practical Science, with full Directions for Experiments and numerous exercises. By J. H. Leonard, B.Sc. Lond. With a Preface by Dr. J. H. Gladstone, F.R.S. Price 1s. 6d.
- OLIVER AND BOYD, Edinburgh.  
The Transactions of the Edinburgh Obstetrical Society. Vol. xxvi. Session 1900-1901. Price not stated.
- PENTLAND, YOUNG J., Edinburgh and London.  
The Principles and Practice of Medicine. Fourth edition. By William Osler, M.D., LL.D. Edin., F.R.S., F.R.C.P. Price 24s.  
Text-book of Pharmacology and Therapeutics. Edited by W. Hale White, M.D., F.R.C.P., Physician to, and Lecturer on Medicine at, Guy's Hospital, London. Price not stated.
- SPRINGER, JULIUS, Monbijouplatz, 3, Berlin, N.  
Lehrbuch der Gynäkologie. By Max Runge of Göttingen. Price M10.
- STOCK, ELLIOT, 82, Paternoster-row, E.C.  
Scientific Research: A View from Within. By Stephen Smith, M.R.C.S. Eng. First Edition. Price 2s.
- VIGOT FRÈRES, 23, Place de l'Ecole de Médecine, Paris.  
Les Gardes-malades. By Mlle. Dr. Hamilton of Bordeaux and Dr. Félix Regnault, editor of the *Correspondant Médical*. Price 3 francs.
- VINTON AND CO., LIMITED, 9, New Bridge-street, E.C.  
Baily's Hunting Directory, 1901-1902. By the Editor of "Baily's Magazine of Sports and Pastimes." Price 5s.

### Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.

- BARTON, G. A. H., M.D. Brux., M.R.C.S., L.S.A., has been appointed an Honorary Anaesthetist to the City Orthopaedic Hospital.
- BRADNELL, GEO. D., M.R.C.S.E., L.R.C.P. Edin., M.D. Canada, J.P., has been appointed by the Government of British Columbia Resident Physician for Denman and Hornby Island, Canada.
- CLARK, PERCY J., L.S.A., M.R.C.S., has been appointed Assistant Medical Officer to the London Dispensary, Spitalfields, vice C. B. Dale, M.R.C.S., L.R.C.P., resigned.
- COLES, CHARLES, M.D. Lond., has been appointed Medical Officer of Health for the Bicester, Chipping Norton, Henley, Thame, Witney, and Woodstock Rural and Urban Districts, Hambleton, Headington, and Long Crendon Rural District, and Wheatley Urban District.
- CORBETT, J. A., M.B., B.S. R.U.I., has been appointed Certifying Surgeon under the Factory Acts for the Bangor District of County Down.

EMPSEY, PATRICK, F.R.C.S.I., M.R.C.S., L.R.C.P., has been appointed Surgeon for Diseases of the Throat and Nose to the Mater Misericordie Hospital, Dublin.

GIBSON, C. G., M.D. Edin., has been re-appointed Medical Officer of Health for the Broadwood Widger and Launceston Rural District Council.

GLENNY, EDMUND, L.R.C.P.I., L.R.C.S.I., has been appointed Junior House Surgeon to Jervis-street Hospital, Dublin.

HARDWICK, ARTHUR, M.D. Durh., L.S.A. Lond., D.P.H. Lond., has been appointed Medical Officer of Health for three years for Newquay, Cornwall.

HEAVEN, JOHN COOKESLEY, L.R.C.P., M.R.C.S., L.S.A., D.P.H. Lond., has been re-appointed Medical Officer of Health by the Keynsham Rural District Council.

IRVINE, H. R., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Dispensary Medical Officer for Belfast No. 13 and Castle-rough No. 1 Districts, vice Mr. James Irvine, resigned.

LANDER, H. W. G., M.B. Edin., has been appointed Medical Officer by the Derwent Valley Water Board for their workmen's village.

McLORINAN, W., L.R.C.P.I., L.R.C.S.I., has been appointed Dispensary Medical Officer of Cusheadall and Waterfoot Dispensary, Co. Antrim.

PADWICK, J. C., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Acts for the Borough and Rural District of Bridgnorth.

PITTER, ROBERT A., L.S.A., &c., has been appointed Clinical Assistant to the Out-patient Department of the North London Hospital for Consumption.

PRENTICE, R. W., L.S.A., has been appointed Medical Officer to the District Council, Ringwood.

RUTLEDGE, C. J., L.R.C.S.I., has been appointed Medical Officer of Health in South Australia.

SERJEANT, H., L.R.C.P.S. Edin., has been appointed Public Vaccinator to the Borough Council of Camberwell.

TARR, W., M.B. Edin., has been appointed District Medical Officer, Yeovil Union, in the room of Mr. G. C. Wilkin, resigned.

THOMPSON, JAMES ARTHUR, M.B., B.Ch., B.A.O. T.C.D., has been appointed Senior House Surgeon to Jervis-street Hospital, Dublin.

TURNER, A. H., L.S.A., has been appointed Medical Officer of Health for the Beaconsfield Urban District.

VERCO, C. A., M.B., has been appointed Resident Medical Officer at Adelaide Hospital, Australia.

VIOLETTE, W. B., M.B. Glasg., has been appointed Medical Officer of Public Institutions at Parramatta, New South Wales, Australia.

WALKER, EDYTHE M. S., M.B. Glasg., has been appointed an Assistant Medical Officer at the Workhouse, Township of Toxteth Park, in the room of Miss A. P. Blackadder, resigned.

WATERS, C. H., M.B. Edin., has been appointed Public Vaccinator at Mount Malcolm, Western Australia.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BEVERLEY DISPENSARY AND HOSPITAL.—Medical Officer and Dispenser. Salary £160 per annum.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Medical Officer, also Resident Surgical Officer. Salary of each office £80 per annum, with board, washing, and attendance.

BRACEBRIDGE ASYLUM, near Lincoln.—Junior Assistant Medical Officer, unmarried. Salary £125 per annum, with apartments, board, attendance, &c.

BRAINFORD ROYAL INFIRMARY.—Dispensary Surgeon, unmarried. Salary £100 per annum, with board and residence.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn-road, W.C.—House Surgeon. Salary at rate of £50 per annum, with board and residence.

CHelsea HOSPITAL FOR WOMEN, Fulham-road, S.W.—Resident Medical Officer, unmarried. Salary £60 per annum.

CHESTER GENERAL INFIRMARY.—House Physician. Salary £90 per annum, with residence and maintenance.

COUNTY ASYLUM, Mickleover, Derby.—Senior Assistant Medical Officer. Salary £150, rising to £180 per annum, with apartments, board, washing, and attendance. Also Junior Assistant Medical Officer. Salary £120, rising to £150 per annum, with apartments, board, washing, and attendance.

COUNTY ASYLUM, Prestwich, Manchester.—Junior Assistant Medical Officer, unmarried. Salary £150, increasing to £250, with board, apartments, and washing.

COUNTY OF EAST SUSSEX.—Medical Officer of Health. Salary £200 per annum, with fees, &c.

CROYDON GENERAL HOSPITAL.—Senior and Junior House Surgeons, unmarried. Salary, senior £105, junior £60, with board, laundry, and residence.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—House Surgeon and Assistant House Surgeon. Salary, House Surgeon £100 per annum, Assistant £50 per annum, with apartments, board, and lodging.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—House Physician, for six months. Honorarium of £25, with board and residence.

ESSEX COUNTY ASYLUM, Brentwood.—Fourth Assistant Medical Officer. Salary £150 per annum.

GENERAL INFIRMARY, Leeds.—Resident Surgical Officer. Salary £100 per annum, with board, residence, and washing.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Fifth Assistant Medical Officer, unmarried. Salary £170, with board, lodging, and washing.

GREAT NORTHERN CENTRAL HOSPITAL.—Surgeon to Out-patients.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House Surgeon. Salary £75 per annum, with residence, board, and washing.

ITALIAN HOSPITAL, Queen-square, London, W.C.—Honorary Surgeon.

KING'S COLLEGE, London.—Demonstrator of Pathology and Bacteriology.

METROPOLITAN ASYLUMS BOARD ASYLUM, Caterham, Surrey.—Assistant Medical Officer, unmarried. Salary £150 per annum, rising to £170, with rations, lodging, attendance, and washing.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officers, unmarried, at the Fever and Small-pox Hospitals. Salary £160 per annum during the first year, £180 the second year and £200 the third and subsequent years, with board, lodging, attendance, and washing.

MIDDLESEX HOSPITAL, W.—Medical Officer and Registrar to the Cancer Department. Salary £100 per annum, with board and residence.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary £160, increasing to £180.

NEW HOSPITAL FOR WOMEN, Euston-road.—House Physician, House Surgeon, and Clinical Assistant (females), for six months.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer and also Assistant Resident Medical Officer. Salary at rate of £50 per annum attaches to each post, with board, residence, and washing.

NOTTS COUNTY ASYLUM.—Assistant Medical Officer (temporarily). Four guineas per week, with board, lodging, attendance, and washing.

PADDINGTON GREEN CHILDREN'S HOSPITAL, London, W.—Honorary Dental Surgeon.

POPLAR HOSPITAL FOR ACCIDENTS, Poplar, E.—Assistant House Surgeon, for six months. Salary at rate of £80 per annum, with board and residence.

ROYAL ALBERT EDWARD INFIRMARY, Wigan.—Junior House Surgeon. Salary £80 per year, with rations and apartments.

ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, Dyke-road, Brighton.—Assistant Surgeon.

ROYAL DEVON AND EXETER HOSPITAL, Exeter.—Junior Assistant House Surgeon for six months. Salary at rate of £50 per annum, with board, lodging, and washing.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge-road, S.E.—Resident Medical Officer, for four months. Salary at rate of £70 per annum.

ROYAL INFIRMARY, Sheffield.—Casualty Officer. Salary £100 per annum, with board, lodging, and washing.

ROYAL SEA BATHING HOSPITAL, Margate.—Resident Surgeon, to act as Junior for six months and then as Senior for the like period. Salary at rate of £80 and £120 per annum respectively, with board and residence.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, Strand, W.C.—Clinical Assistants for six months.

ST. MARY'S HOSPITAL FOR SICK CHILDREN, Plaistow, E.—Assistant Resident Medical Officer (unmarried) for six months. Salary £80 per annum, with board, residence, laundry, &c.

SOMERSET AND BATH LUNATIC ASYLUM, Cotford, Taunton.—Assistant Medical Officer, single. Salary £150 per annum, with apartments, board, and washing.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Assistant House Surgeon for six months. Salary at rate of £50 per annum, with food and residence.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

STOCKTON AND THORNHAY HOSPITAL, Stockton-on-Tees.—House Surgeon. Salary £200 per annum.

WINDSOR AND ETON ROYAL DISPENSARY AND INFIRMARY.—House Surgeon, unmarried. Salary £120 per annum, with residence, board, washing, and attendance.

WORCESTER COUNTY AND CITY ASYLUM.—Junior Assistant Medical Officer. Salary £120 per annum, increasing to £150, with board, apartments, and washing.

The Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies for Certifying Surgeons under the Factory Acts at Chapel-town, in the West Riding of the county of York; at North Currey, in the county of Somerset; and at Peebles, N.B.

## Births, Marriages, and Deaths.

### BIRTHS.

GILPIN.—On 9th Nov., the wife of R. Harrison Gilpin, M.R.C.S., L.R.C.P., L.S.A. Lond., of a son.

OSBORN.—On Nov. 11th, at Ennismore House, Dover, the wife of Francis Arthur Osborn, L.R.C.P. Lond., M.R.C.S. Eng., of a daughter.

### MARRIAGES.

COWARD—BRUSHFIELD.—On Nov. 6th, at St. Peter's Church, Badleigh-Salteton, Devon, Ernest G. Coward, M.B. Abern., to Eleanor Millar, daughter of T. Nathaniel Brushfield, M.D. St. And.

HARRIS—BEDELL.—On Nov. 9th, at Stowmarket, Robert James Harris, M.R.C.S. Eng., L.R.C.P. Lond., of Rochdale, second son of the late Henry Harris, M.R.C.S.E., of Denmark-hill, London, to Ethel Marie, eldest daughter of the Rev. Alfred Bedell of Stowmarket.

### DEATHS.

PARE.—On Sunday, Nov. 10th, at Hampstead, Arthur Henry Esmond Pare, the only son of John William Pare, M.D., L.D.S., of 64, Brook-street, Grosvenor-square, W., and the late Margaret Edmondson Pare.

SMEE.—On Nov. 3th, at his house, The Grange, Carshalton, Alfred Hutchison Smee, M.R.C.S., J.P. for Surrey.

TAYLOR.—On Nov. 11th, at his residence, 6, Grove-park, Liverpool, in his 80th year, John Stoptford Taylor, M.D., formerly Medical Officer of Health for that city.

WRIGHT.—On Sept. 14th, at his residence, 15, York-street, Wynyard-square, Sydney, Horatio George Anthony Wright, Surgeon, M.R.C.S. Eng., L.S.A. Lond., of angina pectoris, aged 74 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## Notes, Short Comments, and Answers to Correspondents.

### ACTION FOR DAMAGES AGAINST A MEDICAL MAN.

At Southwark County Court on Nov. 4th his Honour Judge Addison, K.C., and a jury spent nearly the whole day in hearing an action to recover £50 damages from Mr. Francis Dugon, M.R.C.S. Eng., of Rotherhithe. The plaintiff, who was the wife of a tramcar driver, alleged that there had been negligent and unskilful treatment by the defendant between May 15th and 21st on the occasion of her confinement, in that he unduly hurried the confinement, pulled the child away before it was proper to do so, and treated her in a negligent and unskilful manner, whereby she had to undergo an operation which confined her to her bed for a considerable time.—The plaintiff in her evidence said that she was 28 years of age, had been married eight years, and had had one child and two miscarriages. She was expecting her confinement in July, but on May 15th she was taken ill about 9 A.M. She sent for the defendant twice and he came between 2 and 3 P.M. He examined her and then went away, as he said the child would not be born for some hours, but she sent for him again in the evening. She was in labour when he arrived and he took the child from her with his hands by force; he then immediately commenced to take the after-birth away with his hand. She afterwards suffered severely from what the defendant said were after-pains, but the nurses did not think that all the after-birth had come away. He continued to visit her every day except one until May 21st, during which time she became worse and pieces of after-birth were expelled. On May 21st Dr. Cooke was called in. He operated upon her and she subsequently found herself in hospital, where she remained until June 8th. She was under the care of Dr. Cooke for two months longer.—Dr. Frederick Arthur Cooke, of Canterbury-road, Old Kent-road, who was called by the plaintiff, said that there was nothing wrong in immediately removing the after-birth and there was nothing in the fact that the birth took only 15 minutes. Witness was called in on May 22nd and found the plaintiff very ill. The same night he and Dr. Handson operated upon her, exploring the interior of the womb and removing three small pieces of firmly adherent after-birth which had produced sepsis. It was possible for a medical practitioner to leave behind some portion of the after-birth without being negligent.—Dr. Charles Percy Handson of Jerningham-road, Newcross, said that when he operated with Dr. Cooke he found that putrefaction had been going on for about three days.—The defendant being called stated that he was surgeon to the London and Greenwich Tramways Company, and had a particularly large experience in midwifery, having conducted over 1200 consecutive cases without a maternal death. The plaintiff's pregnancy had lasted just over six months. The child was born easily and he removed the greater part of the placenta with his hand. He ordered the nurse to syringe her every day with a solution of permanganate of potash. On May 21st her temperature rose to 99·8 F., but there was no delirium and her pulse was not very quick. He then substituted a stronger antiseptic for use with the syringe—namely, a solution of perchloride of mercury.—His Honour, in summing up the case to the jury, remarked that if they found there were four or five ways of doing a thing, and a medical man adopted one way which turned out unsuccessfully, they could not find him at fault if afterwards somebody else said he would have done better had he adopted one of the other ways. The jury after consultation found for the defendant, and his Honour gave judgment accordingly with costs.

### FOREIGN WORKS ON PHYSIOLOGY.

To the Editors of THE LANCET.

SIRS,—I wish to procure some recent works in physiology by French and German writers, especially on the subject of chemical physiology. Would any of your numerous readers versed in this science recommend me a few important books? I possess Bunge (1901), Hammarsten, Neumeister, and Hoppe-Seyler. I have no works from a French source. Has such a comprehensive "magnum opus" as "Hermann's Handbuch" appeared on the continent of recent years? I have a recollection of seeing a criticism of such a production, in French, reviewed in the medical papers a couple of years back.

I am, Sirs, yours faithfully,

Nov. 9th, 1901.

DIDUNCULUS.

### DEATH OF A CENTENARIAN.

To the Editors of THE LANCET.

SIRS,—An interesting paragraph appears in THE LANCET of Nov. 9th, p. 1278, under this heading, and I venture to call your attention to some other verified instances of centenarians. The valuable work of the late Mr. Thoms upon this subject requires no laudatory comment; but admirable as was undoubtedly his equipment for this special investigation, and sagacious as were his methods of inquiry, he was restricted from the nature of the case to alleged instances among the general population where the difficulties of

proof are extremely intricate. I have been able (in a Book on Centenarians, published in 1899) to continue similar researches under more propitious conditions, for I was permitted to examine the mortality experience of the life assurance companies of the kingdom and of the National Debt Office. The data thus obtained are not simply specific and authentic but are rendered valid in relation to our subject by the inherent and necessary practice of the companies and Commissioners for the Reduction of the National Debt in requiring adequate evidence of age and conclusive proof also of identity. I thus discovered 22 fresh and undoubted instances of centenarians (see page 10 of my book); and I have also included (page 14) the case of Mrs. M. A. Neve of Guernsey, who was born a year earlier than Mrs. Hanbury and upon recent inquiry was still alive. Her relatives—officers in the army—kindly aided me in procuring the documentary evidence I required, and hence hers is the oldest genuine example on record. Since the book was published many additional cases have been submitted to me for investigation, but with the exception, I think, of two examples only, they have always failed to satisfy the scientific criteria of proof which I have applied. I may, perhaps, be permitted to direct your attention, as the leading medical journal, to the physiological and philosophical elements of the subject of centenarianism which I have discussed in Chapter V. I have asked the publishers to send you a copy of my book, which I beg you in courtesy to accept.—I am, Sirs, yours faithfully,

T. E. YOUNG, B.A., F.R.A.S.

Late President of the Institute of Actuaries.

Cornhill, London, E.C., Nov. 9th, 1901.

### THE CASE OF THE LATE MR. W. K. BROCK.

To the Editors of THE LANCET.

SIRS,—Kindly permit us through the columns of THE LANCET to ask for contributions to a fund we are raising on behalf of the family of the late Mr. W. K. Brock, M.R.C.S., L.S.A., L.M. (formerly in the A.M.S. but obliged to leave the service on reduction of staff), whose untimely death owing to an accident left in very straitened circumstances a widow and eight children. It is specially on behalf of one of these children that we are anxious to collect as soon as possible a sufficient sum to enable him to obtain a living for himself and eventually help the rest of the family. He has shown a great aptitude for pharmacy, and if the opportunity now offered can be taken advantage of he will be earning before long a respectable competency. We appeal with confidence to your readers for contributions, which will be gratefully acknowledged by Mr. B. Jones, Balcarras, Wells-road, Knowle, Bristol, who has consented to act as honorary secretary to the fund. Cheques should be drawn in favour of the honorary treasurer, Mr. E. H. C. Pauli, and crossed "Lloyd's Bank, Limited, Temple-gate, Bristol Branch, Brock Fund."

We are, Sirs, yours faithfully,

GEORGE DUNLOP,

The Vicarage, Knowle, Bristol.

E. H. C. PAULI, M.R.C.S. Eng., L.R.C.P. Lond.,

Alma Villa, Wells-road, Knowle, Bristol.

CHARLES STEELE, M.D. Durh., F.R.C.S. Eng.,

Clifton Villa, Clifton, Bristol.

JAMES STEWART, B.A. R.U.I., F.R.C.P. Edin.,

Dunmurry, Sneyd-park, Clifton, Bristol.

### PEN LANCETS FOR USE IN VACCINATING.

WE have received from Messrs. Roberts and Co. of New Bond-street, London, W., some lancets made in the shape of an ordinary pen nib minus the longitudinal slit from the point inwards and with cutting point and edges. They have been introduced as a substitute for the ordinary lancet in vaccinating, the cost being so low that one can be used for each patient and then thrown away, thus obviating the possibility of any transference of infection from one patient to another. A handle is supplied with an ejecting mechanism. The idea of having a separate instrument for every patient is a good one, but we do not see that these pen lancets have any advantage over the ordinary darning needle which is commonly used.

### ADVERTISEMENT IN EXCELSIS.

To the Editors of THE LANCET.

SIRS,—My attention has been drawn to some editorial comments of yours with regard to a letter of mine that appeared in M.A.P. I think that before you publicly abuse a brother practitioner you should ask him if he has any explanation to give. My letter was written, as anyone might see, to Mr. T. P. O'Connor as a personal friend, beginning it with his name, for his information and for him to utilise in his own way, and no one was more surprised than I was to see the letter printed in *extenso*. I trust you will give this letter a place in your columns. I am, Sirs, yours faithfully,

Nov. 11th, 1901.

N. E. YORKE-DAVIES,

\*.\* We have great pleasure in giving Mr. Yorke-Davies's letter a place in our columns. We may further remark that the letter upon which we commented, as it appeared in M.A.P., did not begin "My dear Mr. O'Connor," or "My dear O'Connor," or "My dear Tay Pay," but "My dear M.A.P.," which is not Mr. O'Connor's name. However, of course compositors and readers do make mistakes, sub-editors occasionally not, and editors sometimes omit to correct mistakes, so that the fault may lie in the office of M.A.P. We should advise Mr. Yorke-Davies to give up writing to editors; they are evidently grossly care-

less and stupid and always misinterpret his motives. We have before us a cutting from *Modern Society* of Nov. 2nd, p. 1647, in which most unfortunately appears another effusion from Mr. Yorke-Davies about the waters of Marienbad. It is too long to quote in full, but we give an extract or two: "Marienbad should never be visited as a cure for obesity after middle age is passed. I constantly advise this." "The pity is that those who have been to Marienbad for the cure are not properly instructed as to the foods that *fatten* and those that *strengthen*, because if they were when they returned to England their health and condition might be improved without regaining the fat that they have worked so hard to get rid of. I have pointed out for many years that there is only one safe way of reducing obesity, and that is ..... But we will not be so unkind as to give away Mr. Yorke-Davies's method. Now, did he mean this letter for publication or not? If not, how heroic of the editor of *Modern Society* to proclaim to the world that he is suffering from obesity after middle age is passed; but, on the other hand, how thoughtful of Mr. Yorke-Davies to write to a friend and remind him so delicately that he is not getting younger.—ED. L.

#### THE METHODS OF A PUBLIC VACCINATOR.

To the Editors of THE LANCET.

SIRS,—I have read with amusement and disgust (but more of the latter) the extraordinary circular on which you commented in THE LANCET of August 17th and Sept. 14th, and of which you have now published the author's name in your issue of Nov. 9th. As the gentleman courts publicity it may be well to assure him that one professional brother vaccinator disapproves entirely of his circular. It has, however, not been made quite clear to whom exactly the circular has been sent. If to parents whose names appear on "Form H" supplied by the vaccination officer then the author trespasses on no man's preserves and his offence is one against good taste only. If, however, it be issued to any other parents, then it is advertising and touting, and the case should undoubtedly be submitted to the General Medical Council.

"Disgusted," whose letter appeared in THE LANCET of Sept. 21st, p. 826, is also weak in his evidence on this same point. How did his patient's name come to the knowledge of the public vaccinator of whom he complains? If the case was covered by a postponement certificate the public vaccinator had no right to interfere. If the term of postponement had elapsed without renewal, then the vaccination officer is bound to deal with it, and "Disgusted" has only himself to blame.

I am, Sirs, yours faithfully,

Nov. 11th, 1901.

A COUNTRY P.V.

#### THE "EVER READY" HEAD LAMP.

MESSES. A. W. GAMAGE, Limited, of 125, Holborn, London, E.C., have recently designed a neat portable battery and lamp for the use of the physician, surgeon, and dental surgeon. Five small "dry" cells are contained in a leather case provided outside with a switch. It is stated that the charge keeps good for 100 hours when not in use, by which we suppose is meant that the loss of potential due to leakage is very small. The lamp is attached to a curved metallic plate lined with soft cloth which is kept in position on the forehead of the examiner by a strap and buckle fastened at the back of the head. The lamp is provided with a universal joint so that the rays may be directed over a convenient range. The whole apparatus is portable and neatly designed, and is, of course, very convenient for examination of the throat, leaving the hands free. The price is 47s. 6d.

#### THE COMPOSITION OF VARIOUS FOODS.

MESSES. VAN ABBOT AND SONS, of Baden-place, Crosby-row, London, S.E., have published in their new edition of "Cookery Receipts for Diabetics" a very useful series of tables giving the composition of various cereals, fruits, &c. These tables are, of course, intended to serve as a guide to the choice of a suitable diet for the diabetic subject. They will save much of the annoyance and waste of time involved in searching through the large authoritative works on the subject. Besides, the literature on the composition of every kind of food is somewhat scattered.

#### WANTED—A HOME.

A CORRESPONDENT is anxious to find a home under medical supervision for an elderly lady, inclusive terms not to exceed £25 per annum.

P. G. V.—We do not understand what our correspondent means by "legal." The procedure to which the law of the land takes exception is when a man practises medicine without being registered and pretends to the public that he possesses a medical degree or a medical position, but has not. To use the degree in question would be legal in that sense of the word "legal." But if our correspondent means by "legal" conduct such conduct as would satisfy the Penal Cases Committee of the General Medical Council the case is different. We do not think that the General Medical Council would approve, in ordinary circumstances, of a medical man using an American degree conferred upon him without examination.

Mr. Robert Boyle.—We regret that we cannot afford space to deal with the controversial and somewhat technical matters to which our correspondent refers.

Java.—Our correspondent is advised to apply to the Consul-General for the Netherlands, Mr. H. J. Maas, 4, Coleman-street, London, E.C.

D. K.—Germany certainly offers more educational advantages.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

## Medical Diary for the ensuing Week.

### OPERATIONS.

#### METROPOLITAN HOSPITALS.

**MONDAY (18th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopaedic (2 P.M.), City Orthopaedic (4 P.M.), Gt. Northern Central (2.30 P.M.) West London (2.30 P.M.), London Throat (2 P.M.).

**TUESDAY (19th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**WEDNESDAY (20th).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopaedic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

**THURSDAY (21st).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**FRIDAY (22nd).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**SATURDAY (23rd).**—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

### SOCIETIES.

**TUESDAY (19th).**—PATHOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Prof. J. McFadyen: The Immunisation of Cattle against Bacillus Tuberculosis.—Dr. F. W. Andrews: A Case of Infection by Bacillus Coll Communis with Endocarditis.—Dr. Klein: The Relation of Danyez's Bacillus to Gärtner's Bacillus.—Dr. D. Nabarro: A Case of Gangrene of the Nose associated with Bacillus Pyocyanus.—Dr. J. W. H. Eyre: A New Centrifuge for Bacteriological Work.

**CHELSEA CLINICAL SOCIETY** (Jenner Institute of Preventive Medicine, Chelsea-gardens, Grosvenor-road, S.W.).—8.15 P.M. Cases:—Dr. C. C. Gibbs: Heart Disease. 8.30 P.M. Communications:—Dr. A. Macfarlay: A Short Bacteriological Demonstration.—Dr. A. F. Penny: Errors in Diagnosis, Avoidable and Unavoidable.

**WEDNESDAY (20th).**—ROYAL MICROSCOPICAL SOCIETY (20, Hanover-square, W.).—7.30 P.M. Mr. C. Beck: Exhibition of Some Antipoints seen under the Microscope. 8 P.M. Paper:—Prof. G. P. Girdwood: On Steomicrography.

**THURSDAY (21st).**—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Mr. B. Browne: Twenty-five Years' Experience of Urinary Surgery in England. (Harveian Lecture.)

**CHILDHOOD SOCIETY** (Library of the Sanitary Institute, Margaret-street, W.).—8 P.M. Lecture.

**MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND** (11, Chandos-street, Cavendish-square, W.).—12 noon. Educational Committee. 2 P.M. Council. 3 P.M. General Meeting under the Presidency of Dr. O. Woods.

**FRIDAY (22nd).**—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers:—Mr. T. H. Morse: Case of Intracranial Section of the Second and Third Divisions of the Trigeminal Nerve for Severe Neuralgia.—Mr. W. Haward: A Case of Fragilitas Ossium.—Dr. S. H. Habershon: The Association of Moveable Kidney on the Right Side with Symptoms of Hepatic Disturbance.

#### LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

**MONDAY (18th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. J. J. Pringle: Clinique. (Skin.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Dunn: Ocular Symptoms.

**TUESDAY (19th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. S. Taylor: Clinique. (Medical.)

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. Buzzard: Disseminated Sclerosis.

**WEDNESDAY (20th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. H. Marsh: Clinique. (Surgical.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Minor Surgery.

LONDON THROAT HOSPITAL (204, Great Portland-street, W.).—5 P.M. Mr. Waggett: Malignant Disease of Larynx. (Post-Graduate Course.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Horton-Smith: Mitral Disease.

**THURSDAY (21st).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Beddard: Treatment of Cardiac Failure.

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. F. E. Batten: Affections of the Nervous System following the Acute Specific Fevers.

CHARING-CROSS HOSPITAL.—4 P.M. Mr. Willcocks: Medical Cases. (Post-Graduate Course.)

LONDON TEMPERANCE HOSPITAL (Hampstead-road, N.W.).—2 P.M. Dr. S. Fenwick: Clinical and Pathological Demonstration.

**FRIDAY (22nd).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. D. Grant: Clinique. (Bar.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. S. Taylor: Medical Anatomy.

LONDON TEMPERANCE HOSPITAL (Hampstead-road, N.W.).—2 P.M. Dr. P. Parkinson: Clinical and Pathological Demonstration.

### EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

### MANAGER'S NOTICES.

#### TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.				TO THE COLONIES AND ABROAD.			
One Year	...	...	£1 12 6	One Year	...	...	£1 14 8
Six Months	...	...	0 16 3	Six Months	...	...	0 17 4
Three Months	...	...	0 8 2	Three Months	...	...	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET OFFICES, 423, STRAND, LONDON, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or on any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and Agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

### METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 14th, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Nov. 8	30.17	W.	...	61	53	38	46	48	Overcast
" 9	30.15	W.	...	65	56	45	45	47	Cloudy
" 10	30.03	W.	...	65	53	47	47	50	Cloudy
" 11	29.83	S.W.	...	62	56	50	46	50	Cloudy
" 12	29.38	S.	...	56	54	50	48	52	Overcast
" 13	29.05	S.W.	0.01	55	49	46	44	48	Cloudy
" 14	29.30	NNW	0.36	60	44	37	36	39	Cloudy

During the week marked copies of the following newspapers have been received:—Municipal Reformer, Allgemeine Medicinische Central-Zeitung, Revista Medica de San Paulo, Echo, Daily Mail, Daily Express, Yorkshire Post, Standard, Bristol Mercury, Liverpool Daily Post, Windsor and Eton Express, Reading Mercury, La Caducée, Hong-Kong Weekly Press, Herts Advertiser, Times of India, Pharmaceutical Journal, Aberdeen Free Press, Manchester Guardian, Dublin Evening Telegraph, Southampton Echo, Stafford Advertiser, Islington Gazette, Glasgow Evening Times, Leeds Mercury, Birmingham Gazette, Coventry Herald, Whitehall Review, Belfast News, Birmingham Daily Mail, &c.

### Communications, Letters, &c., have been received from—

- A.**—Mr. J. Aner, Baltimore, U.S.A.; A. J. S.
- B.**—Monsieur O. Berthier, Paris; Mr. J. E. Benson, Manchester; Mr. T. F. J. Blaker, Brighton; Mr. Robert Boyle, Lond.; Messrs. Burroughs, Wellcome, and Co., Lond.; Messrs. Brown, Gould, and Co., Lond.; Dr. R. Barnes, Eastbourne; Barnwood House, Gloucester, Medical Superintendent of; Messrs. Bates, Hendy, and Co., Reading; Mr. F. B. J. Baldwin, Rotherham; Mr. C. L. Bedford, Birmingham; Dr. C. S. Blythman, Swinton; Mr. Buckston Browne, Lond.; Mr. H. L. Baldwin, Lond.; Dr. H. C. Bastian, Lond.; County Borough of Brighton, Medical Officer of Health of; Messrs. F. B. Bengor and Co., Manchester; Charles Birchall, Ltd., Liverpool; Birmingham and Midland Free Hospital for Sick Children, Secretary of; Dr. F. J. Barker, Lond.
- C.**—Dr. E. P. Cathcart, Munich; Messrs. T. Christy and Co., Lond.; Messrs. S. Clark and Co., Lond.; Miss Susan Campbell, Greenock; Cafolin Co., Lond.; Charing Cross Hospital, Secretary of; Mr. and Mrs. Cooper Meese, Lond.; Dr. H. Campbell, Lond.; Dr. Louis Cobbett, Cambridge; Dr. Choksy, Bombay; Mr. F. H. Perry Coste, Polperro; Dr. E. Cautley, Lond.; Dr. R. Craven, Chipping; County of East Sussex, Lewes, Clerk of; Croydon General Hospital, Secretary of.
- D.**—Dr. J. H. Davies, Leicester; Messrs. Davis and Ormiston, Lond.; Mr. E. Darke, Lond.; Derby County Asylum, Mickleover, Clerk of; Mr. Thomas Dixon, Lond.; Dr. D. S. Davies, Bristol.
- E.**—Dr. W. Ewart, Lond.; Dr. J. B. Emmerson, Biggleswade; Messrs. Eilan and Co., Lond.; E. D.
- F.**—Dr. Theodore Fisher, Bristol; Dr. G. Flux, Lond.; Mr. C. E. S. Fleming, Bradford-on-Avon; Mr. J. H. Farlow, Birkenhead; Dr. James Forrester, Glasgow; Messrs. Fletcher, Fletcher, and Co., Lond.; Dr. Arthur Flach, Rome.
- G.**—Sir W. R. Gowers, Lond.; Dr. F. W. Goodbody, Lond.; Dr. H. Galt, Glasgow; Mr. J. Good, Stockport; Mrs. C. M. Gauche, Lond.; Dr. W. H. Gilbert, Baden-Baden; Dr. E. W. Goodall, Lond.
- H.**—Mr. G. Hermann, jun., Lond.; Mr. A. Hope, Newcastle-on-Tyne; Messrs. S. Hess and Son, Lond.; Mr. C. W. Herbert, Leicester; Dr. W. K. Hunter, Glasgow;
- Hyderabad Medical School, Secretary of; Dr. D. Hooper, Lond.; Mr. F. W. Howell, Lond.; Mr. H. W. Henshaw, Kew.
- I.**—International Plasmon, Lond.; Mr. E. C. B. Ibbotson, Lond.; Mr. A. C. Ingram, Lond.; Dr. A. Inglis, Maybole; Ingham Infirmary, South Shields, Secretary of.
- J.**—Mr. V. Jackson, Wolverhampton; Java.
- K.**—Dr. Ernest Kingscote, Lond.; Dr. L. Knuthse, Shifnal; Messrs. H. Knuck and Co., Lond.; Kops, Ltd., Lond.; Messrs. R. A. Knight and Co., Lond.
- L.**—Mr. T. Leahy-Lynch, Lond.; Lancaster County Asylum, Clerk of; Leeds General Infirmary, Manager of; Leslie's, Ltd., Lond.; Mr. Rickard W. Lloyd, Lond.
- M.**—Dr. L. J. Minter, Hove; Maltine Manufacturing Co., Lond.; Motor Mart, Ltd., Lond.; Dr. S. G. Moore, Huddersfield; Mr. J. H. Marsh, Macclesfield; Messrs. May, Roberts, and Co., Lond.; Mr. H. Marsh, Lond.
- N.**—Notts County Lunatic Asylum, Sneyton, Clerk of; Mr. J. C. Needles, Lond.; Mr. H. Needles, Lond.
- O.**—Dr. James Oliver, Lond.; Mr. F. A. Osborn, Dover; Odontological Society, Hon. Secretaries of.
- P.**—Mr. F. E. Potter, Lond.; Messrs. Parke, Davis and Co., Lond.; Mr. F. Potter, Lond.; Mr. Y. J. Pentland, Edinburgh; Messrs. C. Pool and Co., Lond.; Messrs. Peacock and Hadley, Lond.; Dr. C. T. Parsons, Lond.
- Q.**—Mr. Harry Quilter, Lond.
- R.**—Messrs. Roberts and Co., Lond.; Lieutenant-Colonel P. F. Robertson, Bray; Mr. E. J. Reid, Lond.; Rotherham and District Medical Guild, Hon. Secretary of; Radcliffe Infirmary, Oxford, Secretary of; Royal Albert Edward Infirmary, Wigan, Secretary of; Lady Russell Reynolds, Lond.; Messrs. Ridges and Sons, Wolverhampton; Royal Meteorological Society, Assistant Secretary of.
- S.**—Dr. J. C. Simpson, Cambridge; Dr. T. Coke Squance, Sunderland; Dr. R. Sisley, Saunton, Braintree; Messrs. Street and Co., Lond.; Sell's Advertising Agency, Lond.; Messrs. Spiers and Pond, Lond.; Messrs. Smith, Elder, and Co., Lond.; Mr. C. W. Smith, Stroud; *Sheffield Independent Press*; Messrs. G. Street and Co., Lond.; Stockton and Thornaby Hospital, Secretary of; South Devon, Sec. Hospital, Plymouth, Hon. Secretary of; S. M.; S. H. M.; Scholastic, Clerical, &c., Association, Lond.; Mr. James Startin, Lond.; Mr. B. F. Smallman, Lond.; Miss Constance Smith, Lond.
- T.**—Mr. W. H. Thomas, Bath; Mrs. M. Tweedy, Lond.
- U.**—Mr. F. Upsher-Smith, Watford; Union Assurance Society, Lond.
- W.**—Dr. Tucker Wise, Montreux; Mr. J. M. Westcott, Lond.; Mr. L. W. Williams, Glasgow;

- Mr. Oliver Williams, Lond.; Messrs. W. Wood and Co., New York; Mrs. Wright, Sydney, New South Wales; Herr A. Waiz, Roncesgno, Austria; West Bromwich Union, Clerk of; Dr. Norman Walker, Edinburgh; Messrs. Willows, Francis, Butler, and Thompson, Lond.; Westbourne-road, Lond.; W. M. A. A. Y.—Mr. Macleod Ycarsley, Lond.
- Z.**—Dr. Theodor Zangger, Zurich.

### Letters, each with enclosure, are also acknowledged from—

- A.**—Ashton-under-Lyne Corporation, Borough Treasurer of; A. W.; A. M. S. J. W.
- B.**—Mr. H. L. Brown, Lond.; Mr. H. Brice, jun., Exeter; Birmingham Corporation, Treasurer of; Mr. W. H. Bennett, Lond.; Dr. F. O. Bell, Wareham; Mr. J. C. Bell, Bodmin; B. W.; Messrs. Brady and Martin, Newcastle-on-Tyne; Miss Batterby, Lond.; Lady Bedford, Bermuda; The Brazilian Minister, Lond.
- C.**—Dr. W. H. Corfield, Lond.; Messrs. A. Cohen and Co., Lond.; Children's Hospital, Pendlebury, Secretary of; Capel Lodge, Folkestone; Messrs. J. A. Carveth and Co., Toronto; Miss C. Coppice (The), Nottingham; C. A. R.; Dr. Cotton, Newmains; Messrs. J. and A. Carter, Lond.; Crooksbury Sanatorium, Farnham, Medical Superintendent of; Chester General Infirmary, Secretary of; Dr. W. Cromar, Lond.
- D.**—Dalrymple Home, Rickmansworth, Secretary of; Devonshire Hospital, Buxton, Secretary of; Dover Hospital, Secretary of; Dr. W. G. Dickinson, Lond.; Mr. D. Davies, Llandoverly.
- E.**—E. F.
- F.**—Mr. J. M. Forbes, Greenock; Mr. H. McG. Forbes, Cumines-town; Messrs. Fairchild Bros. and Foster, Lond.
- G.**—Dr. H. R. Griffith, Port Madoc; General Medical Council, Registrar of; Mr. E. Gooch, Lond.; Grove House Asylum, Church Stretton; Dr. A. K. Goulton, Lond.; Mr. H. P. Gilbert, Reading; Mr. H. R. Gilpin, Evesham.
- H.**—Dr. T. W. Hime, Bradford; Mr. D. Heron, Ballynahinch; Mr. J. S. Harris, Birehington; Dr. J. Holmes, Whitefield; Dr. H.; Mr. F. Hall, Beverley; Messrs. J. Haddon and Co., Lond.; H. Westminster; Horton Infirmary, Banbury, Secretary of; Dr. J. Hain, Brinklow; Mr. H. A. C. Harris, Lond.; Dr. F. S. T. Hutchison, Bedding; Mr. T. Homer, Birkdale; Sir F. Seymour Haden, Alresford.
- J.**—Mr. J. L. Johnstone, Upholland; J. L.; J. M. K.; J. S. L.; Mr. Y. M. Jones-Humphreys,
- Commaes; J. R., Preston; Mr. J. Joule, Sarnford Peverell.
- K.**—Dr. C. F. Knight, Portobello; Dr. E. B. Knox, Netley.
- L.**—Dr. G. R. Livingston, Dumfries; Messrs. Lee and Nightingale, Liverpool; L. W. K. T.; Mr. J. B. Lyth, Rotherham.
- M.**—Mr. W. Mackenzie, Raunds; Medicus, Startforth; Monkwearmouth, &c., Hospital, Sunderland, Secretary of; Medical, Haverstock Hill; Dr. W. Murrell, Lond.; Macclesfield General Infirmary, Secretary of; J. Marston's Carriage Works, Birmingham; Mr. D. Macdougall, Greenock; Mr. W. Mynors, Colchester; M.D., Margate.
- O.**—Mr. C. H. Osborne, Old Catton; O. H. W.; Dr. W. Overend, Clacton-on-Sea.
- P.**—Dr. W. Pasteur, Lond.; Parish of Paddington, Clerk of; Mr. W. C. Pakes, Lond.
- R.**—Dr. J. H. Rowe, Bradford; Miss Ringwood, Haslemere; Royal College of Surgeons of England, Secretary of; R. H. B.; R. P. R.; Dr. A. Rose, Horwich; R. J. D.
- S.**—Miss F. M. Saul, Ilford; Dr. C. P. Strong, Bury; S. G. M.; Stirling District Asylum, Larbert, House Steward of; Sheffield Royal Hospital, Secretary of; Dr. D. W. Samways, Mentone; Dr. H. P. Seigh, Kidsgrove; Dr. C. R. Searth, Lae Palmas, Canary; Dr. E. C. Seaton, Lond.; Stretton House, Church Stretton, Medical Superintendent of.
- T.**—Dr. J. H. Tonking, Camborne; Mr. J. Thin, Edinburgh; T. F.; Mr. R. Trimble, West Bromwich; Dr. W. E. F. Tinley, Whitby; Mr. J. B. Thomas, Newcastle-on-Tyne; T. J. D.
- V.**—Mr. S. Verity, Garndiffaith; Victoria Hospital, Folkestone.
- W.**—Dr. A. E. Wright, Netley; Mr. A. H. Wade, Lyndhurst; Messrs. R. R. Whitehead and Bros., Lond.; W. H. R.; W. P. H.; W. S. W.; W. A. M.; W. M.; Dr. T. O. Wood, Lond.; W. H. P.; Mr. J. Williams, Bradford; Messrs. H. Wilson and Son, Lond.; Mr. W. Wilson, Croydon.
- X.**—X. Y. Z., Lond.

EVERY FRIDAY.

## THE LANCET.

PRICE SEVENPENCE.

### SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an additional advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Amières, Paris.

### ADVERTISING.

Books and Publications	Seven Lines and under £0 5 0
Official and General Announcements	Ditto 0 5 0
Trade and Miscellaneous Advertisements	Ditto 0 4 6
	Every additional Line 0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s. Terms for Position Pages and Serial Insertions on application.

# Inaugural Address

ON

## THE ETIOLOGY OF BERI-BERI.

*Delivered before the Epidemiological Society of London  
on Nov. 15th, 1901,*

By PATRICK MANSON, C.M.G., F.R.S., M.D.,  
LL.D. ABERD., F.R.C.P. LOND.,  
PRESIDENT OF THE SOCIETY.

GENTLEMEN,—The last two or three decades have been signalised by many important discoveries in the etiology of disease—of tropical diseases no less than of the more familiar diseases of temperate climates. In the group of tropical diseases we may confidently tick off as having had their exact causes finally determined malaria, Mediterranean fever, plague, leprosy, filariasis, ankylostomiasis, endemic hæmaturia, endemic hæmoptysis, mycetoma, and some minor complaints. Quite recently, thanks to the insight of some of our American *confrères*, we are almost justified in adding yellow fever to the list, although it is true that the actual germ of this disease has not yet been definitely isolated. The immense practical gains which have already sprung, or which will ultimately spring, from these discoveries are patent to everyone. Their scientific importance is in many instances of the first magnitude. These considerations, utilitarian and scientific, should stimulate to further effort towards attempting the solution of the many etiological puzzles which, more especially in tropical diseases, still remain unsolved.

Among other tropical diseases the various affections whose leading symptom is intestinal flux and which are included under the somewhat elastic names of “dysentery,” “sprue,” “chronic diarrhœa,” “colitis,” “entero-colitis,” &c., are perhaps the more important of the unsolved etiological problems. Although intestinal flux is one of the commonest symptoms in disease, especially in tropical disease, strange to say the causes of the pathological processes which lead to the symptom are, if we except cholera, absolutely unknown or, at all events, undetermined. Perhaps only second in importance and in mystery to the intestinal fluxes are those tropical affections which have in common as their leading pathological feature multiple peripheral neuritis. It is about the etiology of one of these—namely, beri-beri—that I propose to offer a few observations this evening.

Of the importance of beri-beri it is hardly necessary to speak. Everyone familiar with the literature dealing with the diseases of the East is aware of the almost leading place which, in certain localities and seasons, beri-beri assumes in their pathology. Instances in illustration of this can readily be adduced from Japan, the Philippines, China, Tonkin, the Netherlands Indies, Burma, the coast of India, tropical Africa, the Brazils, the West Indies, the Sandwich Islands, and even Australia. Among British possessions nowhere is the disease more common than in the flourishing Straits Settlements and in the neighbouring, and intimately associated, Federated Malay States. Here it is always in evidence. A large proportion of the beds in the State and other hospitals are occupied by the victims of beri-beri. Thus, in the State of Negri Sembilan Dr. Braddon reports that in the year 1899 out of every 1000 deaths of Chinese immigrants 62 were attributed to beri-beri. Of every 1000 deaths of the native Malays 140, and every 1000 deaths among Tamils 150, were caused by this disease. So that about one-tenth part of the entire mortality of that State was attributable to beri-beri. During the nine years 1890–1899, in a mean population of 80,228 6001 cases of beri-beri were treated in the hospitals; of these, 535, or 9·2 per cent., died. In the year to which I refer (1899), according to Dr. McClosky, in Pahang in a population of 73,000 there were 146 deaths from beri-beri. On the assumption that the case-mortality in Pahang was similar to that of Negri Sembilan this would represent a total of 1460 cases, or about 2 per cent. of the entire population. In Perak, also in 1899, according to Dr. Wright, in an estimated population of 294,297 there were treated in the hospitals 3113 cases of beri-beri, with a mortality of 333. In the same year 1793 cases were treated in the hospitals of the Straits Settlements with a death-rate a little over 32 per cent.—a death-rate, be

No. 4082.

it remarked, much greater than that occurring in the Malay States, a circumstance attributable in some measure probably to the fact that only the graver cases were admitted.

It would be easy to bring together similar statistics from other countries. The figures I give have been selected because they are recent, apply to British territories, and have been collected by responsible medical officers. They show quite conclusively that in some parts at least of our Empire beri-beri is a very important element in the State problems which the Government has to tackle. Directly or indirectly it is a serious tax on these communities and a distinct drag on their progress. Not only does it lead to great loss of life but it is an enormous drain on the labour market and on industrial resources, for beri-beri is a disease which when not quickly fatal usually runs a long course—probably of several months—during which the patient is, as a rule, incapable of earning his living and, in many instances, of even cooking his food or in other ways attending to his personal requirements. It hampers every industry. It breaks out constantly on plantations, in mines, schools, gaols, and hospitals, and it is a source of continual anxiety to the capitalist, the employer of labour, the Government official, and the medical man. To be able to place one's finger with precision on the cause, or on the medium or way in which it is conveyed, would probably be to enable us to stop this disease and so confer an incalculable boon on the countries I have enumerated. The etiology of beri-beri, therefore, is well worth the serious consideration of the sanitarian as well as of the epidemiologist. As the subject is to occupy the attention of the commission which, as suggested in my address last year, should be sent out to study the diseases of the South Pacific (a commission which, I am pleased to be able to inform you, has already set out) I have thought that the present would be an appropriate opportunity to pass in review some of the facts which have been accumulated and the theories which have been formulated in connexion with the subject.

An additional consideration which has influenced me in selecting the etiology of beri-beri as the subject for my address, and one which should urge us to fresh effort at solving the mystery of this disease, lies in the circumstance that there is a considerable body of evidence tending to show that beri-beri has spread into regions hitherto believed to be immune and even into Europe and other temperate climes. As a matter of fact, beri-beri is constantly to be found in the shipping in the London Docks, and doubtless, if carefully sought for, it could be found in all the large shipping ports, not only in Britain, but on the continent and North America. Moreover, beri-beri, or a disease closely resembling it, if not actually identical, has shown itself in more than one institution in this country—in the Richmond Asylum, for example. A similar affection has shown itself elsewhere in Europe—in France and Italy, for example—and also in the United States of America. It is quite possible, therefore, that in time an epidemic disease resembling beri-beri, if it be not true beri-beri, may attain a permanent lodgment in temperate climates and thus add another burden to countries already sufficiently afflicted with their own indigenous diseases. In these days of rapid and increased communication all kinds of diseases tend to become diffused.

The study of tropical disease as compared to the study of the diseases of Europe labours under this disadvantage, that whereas in the latter there is in most instances complete agreement amongst pathologists as to the pathological conditions indicated by certain names, in the case of tropical diseases, owing to the physical difficulties imposed by distance and consequent rarity of opportunity for the comparison and identification of the diseases of places which may be thousands of miles apart, much confusion has crept in the nomenclature. In some places a disease receives a name which in other places is applied to a totally different condition. Thus, as regards the disease I am discussing, the term “beri-beri” was applied in Assam and Ceylon to what turns out to be ankylostomiasis, a condition widely different from the peripheral neuritis which the term “beri-beri” indicates in Brazil, Japan, the Netherlands Indies, and elsewhere. Furthermore, it is just possible that the term “beri-beri” includes more than one species of peripheral neuritis. It has even been suggested that what is known as “beri-beri” is in many cases, if not in all, a metallic neuritis produced by arsenic or other mineral. In the tropics as in temperate climates, there are undoubtedly several distinct kinds of the pathological condition passing under the name

X

of "multiple peripheral neuritis." "For example, I have seen cases of this condition from the West Coast of Africa which, although bearing a close resemblance to beri-beri, were probably of an entirely different nature. At all events, the cases I refer to did not exhibit the cardiac and dropsical symptoms usually present in true tropical beri-beri. I might remark in passing that there is a large and almost unworked field waiting for the bacteriologist in the tropics; for example, the type of neuritis I refer to, as well as that singular condition so common in Europeans in West Africa and known as "West Coast memory." One well-marked type of peripheral neuritis has been very carefully described by Dr. Strachan. In many respects it, too, resembles beri-beri. Dr. Strachan describes a typical case thus: "A patient presents himself complaining of numbness and cramp in his hands and feet, dimness of sight, and a tightness round the waist." This is always the remark first made by the applicant for treatment. If the case be somewhat more advanced he may add to this statement that he fears he is "getting hard of hearing," and he goes on to say that he suffers from severe burning in the palms of the hands and soles of the feet and that very often this is worse at night than in the day and that the pains and the burning heat prevent his resting. It is rarely that he gives more information than this. On examination it will be seen that there is slight excoriation with fine branny desquamation of the edges of the eyelids, margins of the lips, and around the margins of the nostrils. The palpebral conjunctiva may be hyperæmic as well as the lips. The heat in the hands complained of by the patient will be found to be not merely subjective but appreciable to the touch and due to a hyperæmic condition of the palms. The acuteness of vision for form will be found to be more or less impaired, according to the stage to which the malady has progressed. Examination of the main nerves to the extremities will show that they are very tender on pressure, especially the ulnar nerve, and along the distribution of their terminal filaments they may be tracked by fine herpetic vesicles. On admitting such a case to hospital and watching its further progress it will be noted that at night the patient will be awake for hours, rubbing his feet and legs most probably and moaning with pain. The loss of vision will proceed until he can with difficulty distinguish a large object immediately in front of him and cannot recognise individuals. The muscles of his limbs will waste until the claw hand and foot are marked features, and this wasting of muscles and disappearance of fat will produce an emaciation which is very noteworthy in advanced cases. There will be found to be no alteration of the pupil to light and accommodation, no falling when the eyes are closed, and the sphincters will not be affected. Should the disease make further headway the patient may become a mere helpless skeleton unable even to feed himself, his breathing laboured from implication of trunk muscles in the general muscular atrophy, almost blind and with, perhaps, an ulcer on the cornea, quite deaf, and with possibly small bullæ on the extremities. There may also occur during the course of the malady monoplegia, as facial palsy, or some of the external muscles of the eyeball and, but rarely, of some group of muscles in an extremity. The temperature chart will show a subnormal condition in the mornings, with an evening rise of from one to two degrees. A fatal termination is fortunately rare; when it occurs it is due to the dyspnoea and the riotous action of the heart resulting from vitally important nerves becoming involved in the now almost universal nerve changes. As a rule, however, under appropriate treatment, recovery gradually with perhaps from time to time slight recurrences of the nerve inflammation takes place. The patient becomes stronger, can help himself a little, assimilates food well, and puts on fat again. Then he is able to walk a little, first with help and afterwards alone, his grasp, measured with the dynamometer, shows daily increase of muscular power, his sight clears up, and his deafness gradually passes away, though if this has been extreme it is usually one of the last symptoms to disappear. This disease attacks hundreds of negroes in Jamaica at all ages and of both sexes. It prevails most on the sea-coast and in low-lying regions. Dr. Strachan is inclined to attribute the affection to malaria, but he does not pledge himself to this opinion and I think wisely, for were this a malarial neuritis a similar disease ought to be found in other malarial countries. In many respects Strachan's disease resembles arsenical neuritis and is well worth further

investigation in the light of the recent experiences in Birmingham and the North of England. Another curious neurosis, also probably a peripheral neuritis, was noticed by Malcolmson and other writers on East Indian disease in the earlier part of the last century. I refer to what is known as "burning feet." This name adequately describes the leading symptom of the disease, for such undoubtedly it is. It was, and probably still is, very common in parts of India. It occurs in China to my knowledge.

It is evident, therefore, in investigating and discussing the etiology of beri-beri, if confusion is to be avoided that a clear conception of what is meant by this term should be arrived at. What I conceive to be understood by the word "beri-beri" is a form of multiple peripheral neuritis which occurs endemically and epidemically and is specially characterised as compared with other forms of peripheral neuritis by proneness to oedema and to implication of the neuro-muscular system of the central organ of circulation; by complete absence of trophic skin lesions, of paresis of the muscles of the head and neck, of marked implication of the organs of sight, hearing, taste, and smell, and of the mental faculties. In common with alcoholic and arsenical neuritis there are troubles of locomotion, paræsthesiæ of various descriptions, especially in the lower extremities, marked hyperæsthesia of the muscles involved, with subsequent atrophy and generally, after the initial stages, complete absence of patellar tendon reflex, the superficial reflexes, and the action of the sphincters being in the vast majority preserved. The patient complains principally of sweatings, palpitations, and breathlessness, weakness and numbness of the extremities, and swelling of the legs. Although at the commencement of the disease, and at the outset of such exacerbations as may occur during its progress, there may be slight elevations of temperature and gastrointestinal disturbances, fever and diarrhoea are far from being prominent features in the progress of the complaint. The intensity and duration of the disease varies within wide limits. It may be of the most trifling description and only of a week or two's duration; or it may prove rapidly fatal; or it may persist in varying degrees of intensity for months. The leading feature may be paresis and muscular atrophy or it may be extreme anasarca, or it may be serous effusion into the pericardium or the pleura, or it may be oedema of the lungs, or it may be rapidly fatal paralysis of the right heart or of the diaphragm and muscles of respiration. It occurs generally in limited epidemics in particular houses, institutions, plantations, mines, &c., or it may spread over a large area, but only attacking limited foci therein. It occurs at sea on board ship, where it is prone to be extremely fatal. The post-mortem lesions are those ordinarily found in multiple peripheral neuritis—usually degeneration of peripheral nerves and, as Dr. Wright has recently shown, an ascending degeneration of the neuron ultimately involving the corresponding intracranial cells. It may prove fatal very rapidly in a day or two from the declaration of the symptoms, or at any time during its progress. One attack confers no protection against a second. The case-mortality ranges from 5 per cent. to 50 per cent. In some epidemics only a small proportion of the affected community is attacked; in other epidemics almost everyone may be victimised. In some plantations over 75 per cent. of the coolies have been killed off by beri-beri in a single year.

What is the cause of this disease? Innumerable speculations have been advanced. So far none of these has been proved to be correct. I shall pass over the theories of the earlier writers on the subject and confine myself to what may be regarded as the not disproven theories of more modern workers. These may be grouped under two headings: (1) the dietetic theory; and (2) the microbic theory.

The dietetic theory has been advocated by many writers, especially by Miura who attributed beri-beri to the use of fish, but with more reason by Vinson, Le Roy de Méricourt, Rochard, Overback de Meyer, Masé, and especially by Takaki. All of these attribute the disease to a prolonged and uniform rice diet. Takaki, in particular, took this view, believing the disease to be caused by the physiological deficiency of nitrogen in an almost exclusively rice diet which at one time prevailed in the beri-beri-stricken Japanese navy. He therefore urged on the Japanese authorities the adoption of a more nitrogenous dietary for their sailors, with the result that whereas before the adoption of the more liberal dietary 32.45 per cent. of the force were annually attacked with beri-beri, after the

adoption of the new dietary in 1884 the incidence of the disease rapidly fell to zero. In 1898 it stood in a force of 18,426 men at 0.08 per cent. only. So remarkable a result as this could not fail to call for the application of the principle involved to the army, to prisoners, and to similar public bodies and, as stated in the *Sei-i-Kwai Medical Journal* by Baron Saneyoshi, F.R.C.S. Eng., with equally happy results. Moreover, it has been observed that wherever throughout the Japanese Empire, from one circumstance or another, the diet of the people has been exclusively or mainly a rice one, beri-beri has appeared, to disappear again when this assumed dietetic error has been corrected. This remarkable experience certainly tends to support Takaki's views; but if we consider the circumstances of certain epidemics elsewhere it becomes manifest that there is something more than, or rather other than, nitrogen starvation at the root of beri-beri—that very probably nitrogen starvation has nothing to do with it whatever. Takaki's theory may have led to a successful practice, but success in practice does not necessarily prove the correctness of the theory on which the practice is founded. If the nitrogen starvation theory be correct, how comes it that beri-beri not infrequently attacks the well-to-do—that it appears in hospitals and jails where the food is of good quality, physiological in the proportion of its elements, and sufficient in amount? For example, in the Tan-tok-seng Hospital, Singapore, the diet is a liberal one; nevertheless, patients admitted for some trifling disease, such as an ulcer of the leg, after a time may contract, and die from, beri-beri. How comes it that the disease appears in jails, plantations, and mines, the dietarys of which have been specially devised with a view to avoiding deficiency in the nitrogenous elements? Many examples of this could be brought forward. In 1894 a number of Japanese were imported into Fiji to work on sugar estates; they were picked coolies and in good health when they left Japan and during the journey. On their arrival at Fiji they were divided into two bands. One, consisting of 50 coolies, was sent to work on a certain estate. The dietary was liberal, including meat or fresh fish to the amount of half a pound per diem, besides two pounds of rice and a variety of condiments. Nevertheless, within two months of the arrival of the coolies on the island beri-beri broke out and in all 42 cases occurred. Eight of these patients died; 34 were returned to Japan suffering from the disease, the remaining eight healthy coolies accompanying them. The other batch of immigrants, 205 in number, were sent to a sugar estate in another part of the island. They had a similar dietary. Within a month beri-beri broke out among them. The cases steadily increased in number and by the end of six months 226 out of the 250 were affected. 69 died; the survivors, 181 in number, many still affected with beri-beri, were sent back to Japan. In Singapore jail in 1898 and 1899 there were two kinds of diet in use—ordinary and penal. The ordinary diet was a sufficiently liberal one, including fresh meat and wheat flour. The penal diet contained no meat. Nevertheless, the greater number—absolute and proportionate—of cases of beri-beri occurred among those on ordinary diet, that is, on the diet richest in nitrogen.

Macleod<sup>1</sup> relates an interesting epidemic on board ship in which beri-beri attacked the captain and officers and not the crew—an unusual occurrence. The dietary of these officers included such luxuries as haddies, clams, oysters, lobster, and salmon. Here there could have been no nitrogen-starvation. The disease elected to attack the better-fed members of the ship's company. There was no nitrogen-starvation among the inmates of the Richmond Asylum before or during the epidemics of beri-beri there, which have been so fully and carefully described by Mr. Conolly Norman. There was no nitrogen-starvation in the Blind Asylum at Rio de Janeiro, where not only the inmates but the director and his family were attacked.

There are many additional instances on record which might be quoted in which Europeans enjoying a liberal diet have fallen victims to beri-beri, and although it must be admitted that remarkable improvement has sometimes supervened on the introduction of a more liberal dietary in beri-beri-smitten jails and similar institutions, yet even in those same places and while the inmates were still enjoying the improved dietary which at one time seemed to be beneficial, the disease, after a year or more, reappeared. This has been

the experience in Singapore jail where the disease reappeared in 1898 after having been absent for 14 years.

If the cause of beri-beri be deficient nitrogen in food we ought always to find this condition preceding or accompanying its epidemic development and where we get nitrogen starvation we ought always to get beri-beri. How far the first is from being the case the instances I have quoted show; how far the second is from being the case hundreds of experiments, if unintentional, daily prove, for surely nitrogen starvation is common enough the world over, but beri-beri has no such universal distribution. Dr. C. Eijkman of Batavia has recently brought out a curious fact in relation to rice diet in beri-beri. The prisoners in Java are fed amongst other things on three qualities of rice—one, decorticated rice in which the pericarp has been entirely removed, or at least in from 75 per cent. and upwards of the grains, by milling; a second kind in which the pericarp is retained entirely, or at least in 75 per cent. of the grains; and a third kind consisting of a mixture of the first and second. Statistics applying to 280,000 prisoners show that beri-beri attacks 2.84 per cent., or one in 39, of the prisoners who are supplied with the first or decorticated rice, whilst it attacks only 0.01 per cent., or one in 10,000, of the prisoners who consume non-decorticated rice, while those fed on the mixture of these two qualities suffer in an intermediate degree—namely, 0.24 per cent., or one in 416. He further states that fowls fed exclusively on decorticated rice are affected with a peculiar parietic disease resembling beri-beri, whereas fowls fed on non-decorticated rice are not so affected. The source and species of rice, Dr. Eijkman says, make no difference in the result. Other observers in the Malay islands have made somewhat similar observations on the influence of the quality of the rice. The Japanese substitute barley or beans for rice as a preventive of beri-beri, and believe in their efficacy. A grave outbreak of beri-beri in the pearling fleet off the north coast of Australia was arrested, it is said, by the timely substitution of wheaten flour for the damaged rice on which the crews were feeding. These are facts to be noted, but not necessarily interpreted as proofs that beri-beri is a rice-caused disease, much less a nitrogen-starvation disease.

*The germ theory of beri-beri.*—Another theory, and one much more plausible than the foregoing, is to the effect that beri-beri is a germ disease. Such a theory is quite compatible with the remarkable Japanese experiences to which I have already alluded, as well as with all the known facts. But as to whether the germ produces its morbid effects while proliferating in the human body, or as to whether it acts indirectly by producing outside the body a toxin which on being ingested, inspired, or otherwise absorbed, acts on the nerves, it is impossible as yet to say. There are arguments in favour of both hypotheses.

The fundamental nerve lesions in beri-beri resemble those produced by several well-known organic poisons and are probably the result of the direct action of some such poison. If we adopt the first hypothesis—that is, the infection hypothesis—we have the argument supplied by analogy for supposing that the lesions are the effect of a toxin elaborated by the germ while it is proliferating in the blood or tissue—that is to say, an intoxication produced by one infection; if, on the other hand, we adopt the second hypothesis we must conclude that the specific germ resides in some external medium where it elaborates its toxin which is subsequently absorbed as such—the germ not entering the body or at all events not necessarily so.

The infection theory has had many advocates, including Scheube, Lacerda, Ogata, Masanori, Wallace, Taylor, Cornelissen, Suguenoya, Pekelharing and Winkler, van Eecke, Rebourgeon, Musso and Morelli, Glogner, Braddon, Hunter, Rost, and I do not know how many more. Many of these claim to have discovered a beri-beri bacterium. Unfortunately, in some instances the observations are crude and open to objection on the ground of technique; more unfortunate than this, there is a suggestive want of uniformity as to the morphological and cultural characters of the various organisms separated, some describing a bacillus, others a micrococcus, and one at least an endo-capsular protozoon like that of malaria. There is also a suspicious unanimity as to the pathological effects produced by these very different organisms when injected into the lower animals. Some recent work by Hunter in Glasgow, carried on under very favourable circumstances, led him to the conclusion that beri-beri is caused by a micrococcus which is visible in the blood and which can be cultivated in various

<sup>1</sup> Brit. Med. Jour., August 14th, 1897.

media and on subsequent injection into rabbits gives rise to something like a peripheral neuritis. His observations, like those of van Eecke and Braddon, seem to confirm those of Pekelharing and Winkler. On the other hand, equally careful observations, made in equally favourable circumstances by more than one bacteriologist working with material supplied by the Richmond Asylum epidemic, gave absolutely negative results, and the same may be said of similar observations elsewhere. If beri-beri be an infection I hold with Scheube, than whom there is no higher authority on this disease, that so far the germ has not been discovered or, at all events, that no germ has been demonstrated to be the specific cause of the disease.

To my mind the theory which conforms best to all the known facts in respect to the etiology and pathology of beri-beri is to the effect that this disease is purely an intoxication produced by a toxin elaborated by a germ whose nidus is located outside the human body; that in this respect beri-beri is on all fours with alcoholism, the germ of which is the yeast plant, the nidus solutions of sugar, the toxin alcohol, and, to complete the parallel, the pathological effect a peripheral neuritis. There is no evidence to show conclusively that beri-beri can pass directly from man to man like the ordinary infectious disease, yet that it is produced by a living germ is certain. This is proved by the fact (a) that the cause can be transported from place to place and, therefore, cannot be of a climatic or meteorological nature; and (b) that when so transported it can multiply and spread and, therefore, cannot be of an inorganic nature. As already mentioned it has recently been suggested that beri-beri is caused by arsenic. Now the clinical symptoms of beri-beri and arsenical poisoning are very different. I have never seen skin lesion, other than accidental, in beri-beri. This in itself is almost conclusive. The diseases are not the same clinically. Professor Dixon Mann has recently shown that in arsenical neuritis arsenic can by chemical tests be detected in the hair. Some time ago he had the kindness to examine for me hair from two recent cases of beri-beri. In neither did he find a trace of the mineral. There is no evidence worth considering that tends to show that any other mineral is concerned in the production of the disease. Tin has been suggested; but there is no tin in Japan or in the Kurile Islands where beri-beri has occurred. A mineral cause would not be regulated in its incidence or efforts by meteorological conditions, as beri-beri certainly is.

That the cause of beri-beri can be transported has been proved over and over again, as, for example, by the epidemic among Japanese in Fiji already alluded to; but it is more difficult to find facts to establish completely that when so transported it can multiply. If, however, we find an instance of some island hitherto free from the disease, among the natives of which beri-beri on being introduced has spread, we may regard it as presumptive proof that the cause of beri-beri is endowed with that special property of living things, the power to multiply. There is recorded at least one apparent example of such an occurrence. A number of Tonkinese and Annamese were brought to New Caledonia in March, 1891. Beri-beri broke out among them and caused many deaths. After a time the disease spread, and in some instances proved fatal to certain natives, Kanakas, who had become associated with the Asiatics. These two things, portability and the power of multiplication, if established, certainly show that the fundamental cause of beri-beri is a living thing, a germ. The evidence that the multiplication of this hypothetical germ occurs outside the body, though not conclusive, is certainly stronger than any evidence which has been hitherto advanced in favour of its multiplication inside the human body. Did the germ multiply inside the human body we might expect that the disease it produces would run a more or less definite course as in other infections. But this is not so, for if we remove the subject of beri-beri from the infected area or the conditions in which he has sickened after an interval of from a week to a fortnight the progress of the disease, if it had not proved fatal in the interval, will be arrested and slow convalescence supervene. Now, if beri-beri be caused by a germ living in the human tissues it is not likely that this germ would be killed off thus early; on the contrary, analogy would lead us to believe that it would continue to multiply till immunity had been produced, and this we know to be a long process in beri-beri, for those patients whose lives are spared and who continue to live in the endemic area generally exhibit active symptoms for months after the commencement of the disease.

In our experience of the disease at the Seamen's Hospital,

Albert Docks, we have very strong evidence of this evanescent nature of the primary effects of the toxin of beri-beri. From October, 1890, to November, 1901, 135 cases of beri-beri were admitted to this hospital. They all came direct from the ships in which they acquired the disease. 19 died—four on the first, two on the third, four on the fifth, two on the sixth, one on the eighth, and three on the fourteenth day after admission. This accounts for 17 of the 19 deaths. Of the two other fatal cases, one died from phthisis on the hundred-and-fourth day after admission; the other, apparently from dilated heart, on the thirty-first day. With the exception of these two, neither of whom apparently succumbed to the immediate effects of disease, a fatal result never occurred later than a fortnight after the patient had been removed from the conditions in which he had contracted the disease. At the Seamen's Hospital, therefore, we have come to regard cases of beri-beri as safe when they have passed the fourteenth day. Would this be justifiable were the disease the result of an infection, immunity from which is only slowly acquired? Sufferers from beri-beri when kept under beri-beri influences do not recover for months, during which the disease is liable to exacerbations in any of which death may occur. Beri-beri is like alcoholism in these respects—keep the drunkard from liquor and in a few days he begins to recover; give him liquor and he will not recover. Take the sufferer from beri-beri away from the circumstances under which he is being poisoned and in a few days he begins to mend; keep him under these circumstances and he will continue sick and very likely die.

Pekelharing and Winkler, who advocate the personal-infection theory, try to get over the generally recognised beneficial influence of removal from the endemic area by assuming that in this area the disease is kept up by continual or repeated infections, and in their experiments they attempted to imitate what they assumed occurs in nature by introducing syringefuls of their cultures at short intervals into the experimental rabbits. Their followers have done the same. It is small wonder that they had fatal results and indications of peripheral neuritis; it is a wonder rather that any of their animals survived such treatment. Hirota publishes an interesting observation which lends strong support to the toxin theory. In some respects it resembles our experience at the Albert Dock Hospital. Infants suckled by mothers suffering from beri-beri get the disease. He refers to 52 such cases. When the infants were weaned and fed on condensed or cow's milk improvement set in at once; five cases which were not so treated died. A child who acquires a germ disease from its mother's milk will not recover thus rapidly; but a child who has only become intoxicated from drinking an intoxicated mother's milk will.

But although we may conclude, with a fair show of reason, that beri-beri is a toxin-produced disease we cannot say what the toxin is, what the germ producing it is, or where this germ resides. The whole epidemiology of the disease shows that the germ clings to people—witness its transportation to Fiji and New Caledonia by Asiatics—and that it clings to places—witness the persistency of the disease in certain buildings and ships. Instances of its tendency to cling to buildings are numerous and there are some well-authenticated examples of a similar persistency in ships. A very telling example of the latter is recorded by Mr. Montgomery Smith.<sup>2</sup> In 1896 a ship, the *Lodestar* of London, arrived in Falmouth with a cargo of rice from Rangoon after a long voyage during which the entire crew was attacked with beri-beri and three had died from the disease. The ship was sold to German owners and renamed the *Steinbek*. At Amsterdam she received a new crew and took in fresh provisions; she then sailed for Java where she loaded with sugar. She left Java on Jan. 27th, 1898, all being well on board. On April 29th, when off St. Helena, and after being three months at sea, beri-beri broke out, and when the ship arrived at Bermuda the entire crew, with the exception of one man and a boy, were down with the disease. One man died in Bermuda, the others apparently recovered. Two epidemics of beri-beri in the same ship, but in different crews and on different provisions, occurring at an interval of about two years, surely form no mere coincidence but distinctly point to a persistent infection in the ship. A Chinese revenue cruiser well found in every respect visited Corea. Many of the crew subsequently developed beri-beri. For several years thereafter during the south-west monsoon cases

<sup>2</sup> Brit. Med. Jour., Nov. 5th, 1898.

of the disease kept cropping up in the crew. This example of ship infection came under my own cognisance and I was familiar with the facts.

At the Albert Dock Hospital, as recorded by Dr. Rees, we came at one time to regard certain steamers trading to the port of London as infected ships; we called them "beri-beri ships," as they almost invariably brought us cases of the disease on their return from their periodical voyages to the East.

Many similar facts could be adduced tending to show, although not absolutely to prove, that a ship can become infected with beri-beri. If a ship can become infected why not the houses, and even the localities, in which this disease, as is its habit, establishes itself? Granted that a place or ship can become infected we have still to find the particular medium in which the germ operates and the particular portal through which its toxin enters the human body. There is a marked tendency among the students of this subject to regard, not without reason, rice as the nidus of the germ; but if rice be the medium how is it that the disease sometimes occurs in individuals who have not consumed this cereal? The answer may be that other farinaceous substances are equally efficacious as a culture medium, if I may so speak. But if we concede this how are we to explain the latency of the infection in buildings and ships which have had their stores frequently renewed in the intervals between the epidemics? The answer to this may be that the germ clings to the walls, the wood, and the utensils of the place, and that when cereals are brought in the germ drops into them and infects them. Thus infected, when consumed, whether on the premises or exported elsewhere, they may cause the disease. On the other hand, it may be that the germ distils its toxin from some other medium, clothes, the soil, wood, or what not, and so poison through the atmosphere. This is speculation—but I think we have distinct evidence to show that beri-beri is, in a sense, a place disease.

In the foregoing reasonings, or, if you like, speculations, on the nature or cause of beri-beri I have been powerfully influenced by the analogy of alcoholism. Analogy I know is not argument, but if it helps us to understand or if it helps us to suggest it is not quite useless. Before, however, anything like assurance on the etiology of beri-beri can be attained we want more facts, above all carefully devised and executed experiments. It is to be hoped that the expedition to which I have alluded will, in the specially favourable circumstances in which it will be placed, carry out a series of such experiments with the view to ascertain, first, the medium or media in or through which the disease is conveyed; and, secondly, having found this, by a process of exclusion to isolate the organism which undoubtedly is at the root of the disease. Should they succeed in this it is more than probable that we will be in possession of that knowledge which alone can give precision and accuracy to efforts at cure and prevention.

There are several points that investigators into the etiology of beri-beri must be careful to attend to.

1. The diagnosis; they must avoid mistaking other forms of peripheral neuritis for that of beri-beri.
2. They must bear in mind the possibility that the disease may not have been contracted at the place in which it is declared.
3. That the toxin which produces an outbreak of beri-beri may have been imported as such and not manufactured, so to speak, locally.
4. They must carefully differentiate between predisposing or favouring conditions, such as overcrowding, heat, and moisture, bad food, &c., and the actual direct cause.
5. Finally, they must recognise that the actual cause must correspond in its geographical distribution with the geographical distribution of the disease.

**RESPONSIBILITY OF HOUSE-OWNERS.**—At the Stonehouse County Court held on Nov. 11th a Devonport clergyman claimed £30 damages from the owner of a house at Ivybridge. The plaintiff rented the defendant's house for the summer, being assured that it was in a good sanitary state, but shortly after the house was occupied the plaintiff, his family, and servants suffered from illness which medical evidence showed was caused by sewer-air poisoning, and a builder proved that the sanitary fittings were defective. The hearing of the case occupied nearly five hours and his honour, Judge Woodfall, eventually gave judgment for the plaintiff for £25 and costs.

## The Harveian Lectures

ON

### TWENTY-FIVE YEARS' EXPERIENCE OF URINARY SURGERY IN ENGLAND.

*Delivered before the Harveian Society of London  
on Nov. 7th, 14th, and 21st,*

By G. BUCKSTON BROWNE.

#### LECTURE II.<sup>1</sup>

*Delivered on Nov. 14th, 1901.*

MR. PRESIDENT AND GENTLEMEN,—Great improvement has taken place in the treatment of enlargement of the prostate gland during the last quarter of a century. When I began practice antisepticism as applied to catheterism was unknown, and the great success of modern treatment is undoubtedly based upon attention to antiseptic detail, better surgical instruments, and greater skill and knowledge in their employment. Particularly of late, as a background for the display of would-be remedial operations, the prospects of the prostatic patient have been painted in the blackest possible colours. I believe all this to be a mistake. No doubt by a patient's neglect of himself, or by error in surgical treatment, intense cystitis may be brought on, resulting in much suffering; but even this is remediable by simple means, whereas if the patient be not careless, and if he be judiciously treated, I would say that he was more likely than not to live to a considerable age, for I have the greatest respect for the average prostatic patient's constitution. The prostatic patient is often remarkable for his energy, force of character, intellectuality, and general success in life. The prostate is a sexual organ and it appears to exercise no urinary function whatever, although learned papers have been written upon its urinary importance in health, the apparently obvious fact being overlooked that women perform their urinary functions very well without it.

Why the prostate undergoes enlargement is not very clear and no satisfactory theory has yet been brought forward. I think the affection is more common among the sedentary and well-to-do, but it is found amongst men who are the very reverse of this. It certainly is often seen after a second marriage, or after a marriage late in life; but, on the other hand, I have met with great enlargement in men remarkable for their life-long asceticism, celibacy, and piety, so that with regard to the etiology of prostatic enlargement one feels still at sea. If pressed, however, to advise how best this malady is to be avoided I should advise plain living, exercise on foot, and very moderate worship at the shrine of Venus after 50 years of age. It has often been remarked in writings on the enlarged prostate that if a prostatic patient who fails to empty his bladder be left alone a time comes when cystitis occurs and the urine becomes cloudy and offensive. This is not so in the vast majority of cases unless instruments have been used, and almost always is due to some imperfection in the antisepticism employed.

We will therefore begin by a consideration of the practicable antiseptics of catheterism. I believe the strictest and greatest authorities on antiseptics allow that there is no perfect antisepticism, and that antisepticism is an attempt only at perfection. Nature allows and provides for a certain amount of error. It remains for us, therefore, to find some system which is sufficiently perfect to avoid infection of the bladder, and at the same time sufficiently simple to be practicable for the busy patient who is engaged in all the ordinary duties of life. For many years I have provided the patient requiring the use of the gum elastic or rubber catheter with the following outfit—a tube of antiseptic pellets (one of which dissolved in a pint of boiled water yields 1 in 1000 of perchloride of mercury); a pint bottle; a glass tube 13 inches long, one and a quarter inches in diameter, fitted with a cork and stand; a box divided into seven compartments, each compartment holding a catheter, and labelled after the days of the week, made of

<sup>1</sup> Lecture I. was published in THE LANCET of Nov. 16th, 1901, p. 1317.

cheap material so as to be burned when soiled, and easily replaced, or of tin, and therefore easily purified by boiling; and a pot of plain white vaseline, or with the addition of 5 per cent. of oil of eucalyptus. In his bedroom the patient is directed to keep a vessel with a lid, filled with water which has been boiled, and a supply of clean, small, soft, rough towels, so distinctive that they cannot be used except by accident for ordinary purposes. The patient dissolves a pellet in the pint bottle filled with boiled water, and from this pint he fills his upright glass tube. We will suppose that his catheters are handed to him in a pure state. He uses a catheter at bedtime, withdraws it, wipes it, and then washes it in soap-and-water, and places it in the upright tube for the night. The catheter being upright in the tube, the inside is thoroughly exposed to the antiseptic solution, and there is no need to have interiors of catheters smooth and polished, as has been proposed, and which adds to their expense. If the catheter has been put into the tube at bedtime it can be taken out the next morning, rinsed in water which has been boiled, dried, and put away in its compartment in the seven-compartmented box until its day for use comes round again. If a catheter is required four or five times in 24 hours it can, after each using, be washed and put back into the tube during the day of usage, although it is found in practice that simple washing during the day is sufficient if the catheter have its antiseptic bath at night. Men engaged during the day away from home and travellers carry two or three or more clean catheters in little metal boxes (which can be boiled) in their pockets, transferring the catheters when used to another pocket, and waiting until evening and their bedroom is reached before washing them all, and placing them in the antiseptic solution. One tubeful of perchloride solution will purify five or six well-washed catheters. Gum-elastic catheters by good makers will bear 12 hours' immersion in 1 in 1000 of perchloride of mercury well, and carefully used in this way will last for years. Vulcanised indiarubber catheters may, if desired, be left in this antiseptic bath altogether without sustaining any injury. The receptacle for the lubricant employed should be small, so that the latter is frequently renewed and the former should be frequently cleaned. The glans penis must be kept clean with soap-and-water and the hands well washed. If these simple directions be carried out the urine will keep sweet and clear and cystitis will never be set up. All metal instruments, such as silver catheters and vesical and urethral sounds, should be boiled. No prostatic patient should be touched by any instrument which the surgeon is not perfectly satisfied with and would not use if necessary upon his own person, for if one impure contact be made the patient may never be the same again and it may be the starting-point of almost endless trouble. At one time I thought that the bladder never became infected unless impure instruments had been used, but I have had occasion to change this view, having found bacterial urine in the male bladder virgin to all instruments, but this is very exceptional, and we must insist upon practicable antisepticism in urinary surgery.

When an elderly man requires the use of a catheter it may be that he simply fails to empty the bladder by his natural efforts to the extent of a few ounces, or that he has an acute attack of retention of urine, or that he has for a long time failed to empty the bladder, that organ having become distended and containing habitually a large quantity of urine, the urine passed naturally being simply overflow. But whatever the precise reason for the catheterism the patient may be said to be standing on the brink of a precipice and the surgeon who comes forward to lead him to firmer and safer ground must act from the very first with caution, otherwise it is possible that both surgeon and patient may fall into the abyss, the patient losing his life and the surgeon his reputation. In other words, the absolutely necessary catheterism may result in illness leading to the death of the patient and to the destruction of the surgeon's reputation as a healer of men. Here, just as in the surgery of stone, we are face to face with urinary fever, and we must act from the very outset so as to avoid it if possible. Instrumentation must be gentle and skilful and the patient be kept warm and quiet, for exposure to cold and shaking of the body, as in travelling, both tend still further to embarrass the renal action, if it has already been disturbed by catheterism. Therefore, it is always well to attend the patient in his own warm room, and elderly feeble men should be kept for a few days altogether

in bed. If a patient has sought advice in time and has been properly attended to he will probably never have complete acute prostatic retention of urine, and certainly will never come to the chronic state of retention of urine where the bladder is full and the urine dribbles away. If a patient comes to acute retention of urine he certainly has to be introduced to the catheter under the most unfavourable circumstances and with very little ceremony. The bladder must be relieved as speedily as possible, for the longer the retention the less likely is the bladder to regain its contractile power. It is in these cases that so often great difficulty is experienced in passing a catheter, and catheterism proving unsuccessful the patient is subjected to some formidable operation. We often read in the medical press statements of which the two following are fair examples. A surgeon writes of his patient, aged 81 years, suffering from retention: "The prostate as felt per rectum was enormously enlarged and no catheter could be passed, the growth blocking the urethra completely." Another surgeon writes of his case: "After this it was impossible for two days to introduce a catheter." In both these cases the patients were promptly castrated. Now in such cases as these there is no doubt as to the existence of a urethra from meatus to bladder. I take it that there was no urethral stricture, and I do not admit that there is such a thing as prostatic stricture; therefore, the only reason why a catheter did not pass along the urethra and into the bladder was that the canal was tortuous—that is to say, irregularly bent and winding; and it is obvious that, given faith, determination, and skill, which in this connexion is only another term for experience, it must really have been possible to pass catheters into these bladders. I wish, indeed, to take this opportunity of asserting most emphatically that *there are no cases of prostatic disease where it is impossible to pass a catheter into the bladder*. When once a catheter is passed the patient is on the high road to recovery and he is spared the risks of severe surgical procedures when, owing to his state of health and his age, he is particularly ill-fitted to be the central figure in an operation scene and at a time when "the keepers of the house shall tremble, and the strong men shall bow themselves, and the grinders cease because they are few, and those that look out of the windows be darkened." If a catheter will not pass readily in a case of prostatic retention it will be because the forward curve of the vesical end of the urethra is too acute for the instrument to follow it, or because the point of the catheter has caught in one or other of the two prostatic sinuses on either side of the caput gallinaginis. These sinuses form most perfectly contrived pockets or traps which receive the point of the instrument and effectually bar its onward progress into the bladder. When, therefore, the introduction of the catheter is arrested in these cases the point impinges upon the posterior wall of the urethra or is caught in one of the pockets situated in that wall. It follows that for successful introduction the point of the catheter must hug the anterior wall of the urethra, and so the whole art of catheterising the prostatic urethra with soft instruments consists in making their points avoid the posterior wall. In successful prostatic catheterism one of two things always occurs, either the catheter takes the form of the urethra or the urethra that of the catheter. In the first case, when the catheter conforms to the urethra, the instrument must necessarily be a soft one, and when a soft one is employed it is undoubtedly better for the patient. The indiarubber catheter is the safest of all and will often pass when all others have failed. Indeed, Mr. Jonathan Hutchinson (the introducer of the rubber catheter) considers that there are no cases where it will fail and in his skilful hands it has been a great success. It will be well always to begin with these catheters. But in my experience, especially if other instruments have been previously unsuccessfully attempted, this catheter may not always pass, and it will then be well to try the coudée catheter, keeping the beak well upwards all the way in. Then in point of usefulness comes the bicoudée catheter, which is a very efficacious instrument, especially when the difficulty arises from the prostatic sinuses. The olivary catheter and the English gum catheter are rarely of use in cases of real difficulty. The value of the rubber and of the coudée catheter may in certain cases be much enhanced by the use of a metal stylet. Metal stylets are of three kinds—iron, lead, and silver. The iron stylet gives form and strength to the main body of the catheter, while the end of the catheter may be left free to follow

the curve of the urethra. The leaden wire gives substance and backbone to the catheter without rigidity, and I know no more invaluable instrument in cases of great difficulty than a rubber catheter fitted with a leaden stylet stopping short of, say, three inches from the eye of the catheter. The silver stylet occupies a position between the other two; it is very yielding and at the same time full of spring, and if well curved will often carry a soft catheter safely through a greatly deformed prostatic urethra, when the curve forwards close to the bladder is very acute. If no soft catheter, either with or without a stylet, can be passed, then we must make the urethra conform to the catheter; in other words, we must use a silver instrument. The very worst cases can always be relieved by a silver instrument if the patient be anaesthetised and if the surgeon guide the point of the instrument with his left forefinger in the rectum. I have found a large silver catheter, No. 14, with a short curve and fitted with a gum stylet very useful. It is too large and blunt to catch in the prostatic sinuses, and the short curve comes readily forward on depressing the shaft of the instrument. The gum stylet is useful in preventing plugging of the catheter from blood-clot. After the bladder has been emptied a soft catheter can always be passed in if moulded on an iron stylet to the exact shape of the successful instrument and tied in.

But the most grave and anxious cases are those where the retention has been allowed to become chronic. The bladder, by percussion, can be discovered high above the pubes and the urine constantly dribbles away. No surgeon should consent to treat such cases as out-patients. It must be explained to the sufferers that the necessary treatment is as important and as delicate as the most formidable operation in surgery; they must be sent to bed and told that they will have to stay there two or three weeks. In such cases catheterism must be commenced with care and with every antiseptic detail and the bladder should only be very gradually emptied. I generally practise catheterism every six hours and if about 17 ounces be drawn off each time it will be seen that supposing the original contents of the bladder to be 40 ounces it will take four or five days before any one catheterism empties the bladder. If any pain be experienced towards the end of catheterism the catheter should at once be withdrawn. If these largely distended bladders are suddenly emptied there is almost surr, within a few hours, to be some hæmorrhage from the vesical veins which have been too suddenly relieved from a condition of chronic and severe pressure, the kidneys suffer severely from the shock, urinary fever follows, and the patient almost invariably dies; while if these bladders are only slowly emptied there may not be a rise of temperature, and, if I may so express myself, not even a pus or blood corpuscle may be seen throughout the treatment. All depends upon close and constant surgical attention and perfect submission on the part of the patient. If a prostatic patient be properly introduced to the catheter, and, if necessary, continues to use it with care and cleanliness, his prospects of life are good. The discipline alone is useful; he learns to live punctually and by rule, and necessarily avoids the excesses and indulgences which often bring other men to grief. A man dependent upon his catheter is by no means debarred from great activity, and instances are numerous of men active in politics, law, medicine, and in the Church, distinguished in the work of scientific research, and even as sailors and sportsmen, who are in this condition. I have known many such cases get well on into the "nineties," and even then it has not been to the condition of their urinary organs that they have succumbed but to complaints or accidents of an entirely different nature. I have only just lost an old patient who was born in 1806; his prostate was enormous, and I had to have catheters 17 inches long made for him; and I have another patient born in 1803 who is still alive and active and who has long been entirely dependent upon the catheter. Still, there are the exceptional cases, where there are unusual difficulties and sometimes complications, and where simple catheterism will not alone suffice or is impossible. These are the cases which have been unfortunate in their introduction to the catheter, where cystitis and possibly intense irritation have been set up—cases where catheterism is very difficult and where auto-catheterism is well-nigh impossible, owing to blindness, shaking palsy, crippled hands, and even the loss of a hand. These latter difficulties are of course got over by securing, whenever possible, the services of a good attendant. Then there are the cases where the prostate is

very much enlarged, and often enlarged into the bladder, the prostatic projection acting like a foreign body and causing great irritation, and cases where, hidden away, but none the less irritating and torturing, there is a stone in the bladder, not to be detected by the ordinary method of search by a sound introduced through the urethra. A prostatic case, where the calls to empty the bladder are constant, and where perhaps catheterism is difficult and painful, and the relief obtained by catheterism evanescent, and where no vesical calculus can be found by the ordinary methods of examination, should in the first place always be thoroughly made a patient. He should be kept at rest in a warm room. His catheter should be introduced rather too often than too seldom, and by a skilled attendant. The bladder should be washed out by mild solutions of nitrate of silver, boric-glycerine, or glycerine and borax. Antiseptics should be administered by the mouth, such as boric acid or urotropine, and the bowels should be kept gently active. If the case is one of simple inflammation the improvement which may take place is often astounding, and the improvement can often be rendered permanent by the patient learning exactly how to take care of himself. But if improvement does not take place a careful examination should be made under an anæsthetic; a calculus may in this way often be detected, while the extent of the prostatic growth may be defined by the finger in the rectum and the sound in the bladder. During such an examination it will be well also to use an evacuating-tube and lithotripsy aspirator in order to wash out any irritating phosphatic concretion which may have eluded detection by the sound. If a stone be found it can be crushed and removed, unless for any special reasons it is thought better to perform lithotomy.

Supposing, however, lithotripsy is not performed and that, in spite of all that is done so far, the patient's difficulties continue, it becomes a question what the next step should be. Many would under such circumstances recommend vasectomy, and others, bolder still, would advise the removal of the testes. Now nothing that I have ever met with has recommended these operations to me. I have never performed either of them, for I have seen so many patients after these operations not one whit the better for them, but in many ways the worse, that I have put them aside as even worse than useless. The following are fair specimens of many of my experiences. In a clergyman, aged 66 years, great irritability of the bladder came on in 1893 and a large prostate was discovered. He was submitted to double vasectomy. In 1897 he came to me, suffering much. He held urine for two hours in the day and occasionally could go three hours at night. He had pain during and after micturition. He used a catheter occasionally "to draw away clots of blood," but there was no urine to draw off after an act of natural micturition. By rectum the prostate was felt to be enormous. On sounding a large stone was found in the post-prostatic pouch. Lithotripsy was performed and all his symptoms vanished. He left me well, with no retained urine, but catheterism was always followed by prostatic bleeding, showing that besides being very large the prostate remained highly vascular in spite of the vasectomy. It may be merely a coincidence and not a consequence, but it is right and fair to say that I afterwards went to hear this clergyman preach and I was sorry to find that his voice was unequal to his task. In another case the patient was aged 78 years. He had been taken with complete retention in Switzerland. Catheterism there was found to be impossible. Both vasa deferentia were tied and the bladder was opened suprapubically and a tube put in. Eventually he travelled home with his Swiss medical man, wearing a metal suprapubic tube, and came to me in October, 1897. I found the prostate enormous. I passed a catheter in the presence of the Swiss practitioner and tied it in, removed the suprapubic tube, and eventually healed up the opening. He had three years of comfortable life afterwards, but never ceased to be entirely dependent upon his catheter. Towards the end of 1900 I found him very ill indeed in the country and complaining of much penile pain. This pain was due to a phosphatic calculus which I removed, but he was worn out and died at the age of 81 years. The prostate remained of great size to the end. I saw this patient with Mr. Joseph Birt and Mr. E. H. Sweet.

It seems to me that castration and vasectomy have recommended themselves to surgeons largely engaged in hospital practice, where they see acute cases of prostatic

trouble in patients who are poor and quite unable to take even ordinary care of themselves. These patients are operated upon, and their condition, perhaps in some cases, somewhat improved, the result really being due to the care exercised in catheterism and the rest and management while in hospital. It is forgotten that prostatic patients have their ups and downs even under the most favourable circumstances. I have known a patient after a bad prostatic retention to be entirely dependent upon his catheter for 12 months and then gradually to recover all his power, until now I know that he has not used a catheter for years. Such a case if subjected to castration, had he survived the shock of the operation, would have been put down entirely to the credit of the operation. I believe that castration does no real good in genuine cases of prostatic enlargement, and I know that it is fraught with grave dangers. Many patients become insane, many become decrepit, and many sink altogether under the operation. I must say that it does seem unreasonable to associate prostatic enlargement with sexual stimulus, precisely at a time of life when all the sexual forces are naturally on the wane. I believe that the whole man depends largely as regards his character, energy, and emotions upon the condition of his testicles. In fact, to emasculate is taken to mean to deprive of strength, life, and spirit, and I have much sympathy with the poor patient who, when recommended to submit to castration, said he would rather die first. The same remarks apply to vasectomy, and as for single vasectomy, it certainly appears to me that such an operation ought never to be performed. I have known it performed in at least two cases upon comparatively young men, and both complained to me of loss of sexual power.

I am satisfied that there is only one thing to do for a prostatic patient whose sufferings cannot be cured or mitigated by the treatment already discussed, and that is to open the bladder suprapubically in order to explore digitally for stone or tumour and at any rate to obtain drainage and rest for that organ. No attempt should be made by the perineum, but the bladder should be opened above the pubes, where, however large the prostate may be, the finger can reach every nook and corner of the bladder and deal with whatever may be found. I would, in passing, point out the importance of opening the bladder in such cases upon the point of a staff. When the prostate is large that organ often comes up well above the pubes, and unless a staff is employed it is possible to incise the prostate and not the distended bladder and thus cause serious embarrassment and trouble. It is quite curious how often a bad prostatic case will prove to be really a case of calculus often hidden away in one of the many pouches to which such cases are subject. When once the finger is in the bladder these stones with care are easily found and generally easily turned out, and the case, from being one of anxiety, uncertainty, and even disappointment, becomes a brilliant success. If a stone be found and the intra-vesical prostate is not very large the prostate had better be left alone; but if there be much intra-vesical growth it will become a question for the judgment of the surgeon whether or not it should be attacked and removed. If no stone has been found and there is considerable intra-vesical growth I think it will be good policy to attack the growth. By this I mean the performance of the modern operation of prostatectomy. Prostatectomy is an English operation and was first systematised and brought before the profession in 1889 by the late much-regretted Mr. A. F. McGill, then surgeon to the General Infirmary of Leeds. It is true that Dr. Belfield of Chicago had successfully removed a middle lobe of the prostate by the suprapubic route in 1886, but of this Mr. McGill was unaware, and as the middle lobe had often been torn off by accident and by design by forceps introduced through a perineal incision there was nothing very novel about Dr. Belfield's operation. The systematic way, however, in which Mr. McGill proposed to the profession to open the bladder suprapubically and remove all obstructing prostate was entirely a new departure for which his memory deserves full credit, and the procedure may well be termed "McGill's operation." Mr. McGill laid stress upon nine special points in the technique of his operation, and it is only just and fair to him at the present moment to quote his own words from his seventh paragraph. "The prostate should be removed as far as possible by *enucleation* with the finger and not by cutting. The mucous membrane over the projecting portion having been snipped through the rest of the operation is completed with finger and forceps." From the

practical surgeon's point of view the enlarged prostate pathologically is found to be either fibrous or adenomatous, and it is the latter condition which offers itself most readily for removal, large masses of pancreas-like substance readily being enucleated by the finger. In both these conditions the prostatic hypertrophy may be either (1) extra-vesical; (2) intra-vesical; or (3) both extra-vesical and intra-vesical. It is the intra-vesical growth which chiefly causes difficulty in micturition. This intra-vesical growth is often like an egg projecting into the bladder, with the vesical urethral orifice at the apex of the egg. In such cases the projection is usually equal to an eighth, or a quarter, or even half of an ordinary hen's egg. This ovoid projection may be deficient at any part of the urethral circumference. When wanting anteriorly and laterally we have the so-called middle-lobe enlargement with which all are so familiar where from behind the urethral orifice there is a projecting prostatic mass acting like a bullet valve and often causing the bladder to be entirely dependent upon the use of a catheter for the voidance of its urine. More rarely we have the ovoid projection only wanting in front and we have then a prostatic growth continuously surrounding the vesical urethral orifice on both sides and behind, or the projection may be only on one side; in such cases it is nearly always continuously combined with a posterior enlargement; while, so rarely as practically never to be met with, the intra-vesical growth is only found anterior to the urethral orifice. Intra-vesical prostatic outgrowths may be associated with considerable extra-vesical enlargement and the latter may exist without the former and cause the patient so afflicted to be partially or completely dependent upon his catheter. In my opinion it is the intra-vesical growth which can be removed with reasonable safety. The vesical urethral orifice should be left with nothing surrounding it, but level and continuous with the floor of the bladder. No doubt large adenomatous growths are often met with which can be turned out with the finger for some way down along one side or other of the urethra, but the less the urethra is injured the better, and the prostatic plexus of veins lying inside the true prostatic sheath (recto-vesical fascia) ought not even to be approached. Large masses of prostate have been successfully removed. I operated in 1889 on a man, aged 87 years, and removed four ounces in weight of prostate which I exhibited before the Clinical Society of London. Some surgeons have indeed successfully scooped out such very large masses entire that they have thought that the whole prostate has been removed. Quite lately, although prostatectomy has been a recognised operation for 12 years, there has been much discussion about the "total extirpation of the prostate" by enucleation, and it has been heralded as a new and most promising operation in operative surgery. But surely such phraseology is misleading and no anatomist would use such terms. The prostate can no more be extirpated without the use of the knife than can a piece of intestine; it is absolutely one with the urethra and bladder. The assertion was also made that the prostate could be shelled out and the urethra left uninjured. A little thought will show this to be impossible. The prostatic urethra is the prostate itself: the spongy body ends at the bulb. You cannot even peel the mucous membrane away from the prostatic urethra if you have the organs on a plate before you, much less can you do so with the blunt end of your forefinger groping at the bottom of a deep wound. The mucous membrane is not loose as it is in the oesophagus, but is adherent and bound down as in the intestines. We were also told that the prostate had been enucleated without injury to the seminal ducts, to the prostatic veins, and to the prostatic capsule. In his masterly work on anatomy Professor Thane, in describing the recto-vesical fascia, says it meets the side of the bladder along the line of its junction with the prostate and there divides into two layers; the upper unites with the muscular coat of the bladder, the lower is continued downwards, forming the sheath of the prostate, and at the apex of the gland joins the triangular ligament. "In the angle between the two layers and between the sheath and the substance of the prostate are contained the large veins of the prostatic plexus, *but these structures are so closely united by dense connective tissue that the prostatic sheath can only be dissected off the gland with difficulty.*" (The italics are mine.) It is obvious that such a dissection cannot possibly be made with the end of the finger, unassisted except by pressure from without, and groping at the bottom of a deep and bloody wound, even

if it were safe to attempt to make it. It is quite clear, I think, that the phrase "total extirpation of the prostate" has been used in error and by surgeons who have been fortunate in having only met with the simpler or adenomatous form of prostatic enlargement, where large masses are easily shelled out.

Then, again, in connexion with prostatectomy, it has been denied that when the bladder has long been dependent upon the catheter, say for 12 months, it can regain its natural expulsive power when the prostatic obstruction has been removed. I have, however, been able conclusively to prove that this denial is not correct. I have proved that the bladder can act naturally and completely, and for many years, too, after the removal of prostatic obstruction, and I proved it by the public exhibition of a case, about which there could be neither doubt nor cavil, before the Medical Society of London on March 6th, 1893. My patient had used a catheter for 20 years, and for 10 years had not passed a drop of urine except by catheter. On account of great vesical troubles I opened the bladder suprapubically on March 10th, 1892. I removed a small stone weighing nine grains, and then removed the collar of prostatic tissue which projected into the bladder below and on both sides of the urethral orifice. When shown before the society 12 months after the operation the patient was seen to be well and comfortable and all his urine was passed by his natural efforts. I am glad to say that now, in his eighty-second year, nine years after the operation, he is able to write me that he is in very good health and that no catheterism has been necessary since he left my care. This case is a very happy and successful one and shows what can be accomplished, but we must not forget that the operation is a grave and dangerous one, and I have found no reason to change the views I expressed when I exhibited the above case in 1893. These views may be summed up as follows. Firstly, I believe that suprapubic prostatectomy should never be undertaken at the outset of catheter life unless regular auto-catheterism is difficult or well-nigh impossible. In cases of real difficulty I have seen several patients where vasectomy has been performed, and there has been no lessening whatever of the catheter difficulty. It must be understood that I believe that cases where regular catheterism is impracticable are very rare, and it is for these only that I would recommend suprapubic prostatectomy. Secondly, prostatectomy should never be undertaken as long as the ordinary catheter life is a tolerable one. Thirdly, if catheter life becomes intolerable, suprapubic cystotomy should be resorted to. By means of this proceeding the bladder can be thoroughly explored and any stone removed, which in these cases may easily have escaped detection by the more usual methods of examination. The prostatic growth can be fully examined and removed if the operator think it right to do so. If he deem removal inadvisable he can leave the patient with a suprapubic tube for permanent after-wear with the certainty that he will have materially improved the condition of the patient. Finally, should the operator decide to remove the prostatic obstruction there is a very good prospect, but not a certainty, of the power of natural micturition being restored to the patient. I would therefore strongly recommend all prostatic patients and their advisers to be content with the catheter life as long as it is tolerable, and in the vast majority of cases, with reasonable care, it will remain tolerable into extreme old age—until the end comes probably through other channels. I believe that, as Mr. Jonathan Hutchinson once said to me, "good surgery may often be combined with bad practice." The work of the world is not always done by those who are completely well. It is not wise for the elderly to run grave risks only on the chance of obtaining complete comfort. There is much truth in what Thomas Hardy says of one of his most fascinating heroines: "In considering what she was not he overlooked what she was and forgot that the defective can be more than the entire."

**PROPOSED NEW WORKHOUSE INFIRMARY FOR EXETER.**—At the meeting of the Exeter Board of Guardians held on Nov. 12th it was decided to obtain plans for a new workhouse infirmary to contain 150 beds at a cost not exceeding £80 per bed. It was further determined that the building should be constructed in sections, and that the first section, comprising the administrative block, labour wards, and isolation and children's wards, should be taken in hand as soon as arrangements could be made.

## ANATOMICAL PREPARATION-MAKING AS DEvised AND PRACTISED AT THE UNIVERSITY OF EDINBURGH AND AT THE HUNTERIAN MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

By J. BELL PETTIGREW, M.D., F.R.C.P. EDIN., LL.D.,  
F.R.S., &c.,  
CHANDOS PROFESSOR OF MEDICINE AND ANATOMY AT THE  
UNIVERSITY OF ST. ANDREWS.

HAVING of late years been frequently asked by anatomists, physiologists, surgeons, and others to give an account of my methods of making and preserving anatomical dissections for teaching, examination, and museum purposes, I feel it to be my duty to comply with the request. I should possibly have attended to this matter long ago, but did not deem it of sufficient importance to demand separate treatment. As, however, my anatomical and other friends think otherwise I have no option but to accede to their wishes. It will save time, and possibly add interest, if I treat the subject historically and from a personal point of view.

My connexion with anatomy began in the winter of 1855, when I attended a course of anatomical lectures at the Royal College of Surgeons of Edinburgh under the late Dr. John Struthers, then teacher of anatomy at the Extra-mural Medical School of Edinburgh, and a most painstaking and enthusiastic anatomist. He subsequently became professor of anatomy at the University of Aberdeen and did much to make the Aberdeen Medical School a success. Latterly he became my colleague at the Council of Medical Education and Registration of the United Kingdom, President of the Royal College of Surgeons of Edinburgh, and a knight of the realm. I did no dissection or anatomical reading under Dr. Struthers as I had not then made up my mind to become a medical student, my chief object being to test my nerves as to anatomical procedure. I also this winter (1855) attended a course of natural history at the Free Church College of Edinburgh under the sagacious and thoughtful Professor William Fleming. The natural history lectures were a great source of pleasure to me as I had always been fond of all kinds of natural objects living and dead. The lectures of Dr. Struthers and Professor Fleming determined me to adopt medicine as a profession.

The winter of 1856 found me a fully fledged medical student at the University of Edinburgh. Here I came under the influence of quite a galaxy of genius and talent. The University of Edinburgh was then, and during my medical student days, in the zenith of its reputation as a medical school. The professoriate literally bristled with great names. There was not a single professor who had not written his name in large letters on the scroll of fame. John Hutton Balfour taught botany, George J. Allman natural history, William Gregory chemistry, John Goodsir anatomy, John Hughes Bennett physiology, James Young Simpson midwifery, Robert Christison materia medica, Thomas Traill medical jurisprudence, William Henderson pathology, James Miller surgery, James Syme clinical surgery, and Thomas Laycock the practice of physic. The teachers in the Extra-mural Medical School were scarcely less distinguished and included the well-known names of Stevenson Macadam (chemistry), John Struthers (anatomy), William Sanders (physiology), William T. Gairdner and Warburton Begbie (practice of physic), James Spence, Patrick Heron Watson, and Joseph Lister (surgery), Alexander Keiller (midwifery), Daniel Haldane (pathology), and Douglas MacLagan and Henry D. Littlejohn (medical jurisprudence). There was keen rivalry as between the university professors and the teachers of the Extra-mural Medical School. It was a case of diamond cut diamond.

There was, moreover, at the time of which I write much intellectual activity at both centres of medical education in Edinburgh. Great discoveries were being made and new methods of teaching and research were being adopted. Syme was dazzling the world by his bold, original surgery; Simpson was receiving one long, continuous ovation because of his discovery of chloroform; Bennett was inaugurating a

new era in the teaching of clinical medicine by his habitual use of the microscope and his exact methods; and Lister was laying the foundation of a world-wide reputation by his researches on the blood and his investigations of rudimentary forms in their relation to antiseptics.

The intellectual activity and fame of the professors and extra-mural teachers at Edinburgh naturally attracted medical students in great numbers, and these of the best. Here the case was one of action and reaction. The cycle of great thinkers and masters in their departments produced, as was to be expected, a cycle of great students, many of whom subsequently became eminent professors, teachers, physicians, and surgeons. The following among others were medical students at the University of Edinburgh in my day: Thomas Grainger Stewart, William Rutherford, John Duncan, Thomas R. Fraser, John Cleland, James Crichton Browne, Arthur Gamgee, Crum Brown, Thomas Annandale, Blair Cunynghame, Robert B. Finlay, Alexander Dickson, William Mitchell Banks, Andrew Smart, William C. McIntosh, Joseph Fayrer, Thomas Clouston, Kenneth Macleod, Argyll Robertson, James Little, John Anderson, Peddie Steel, John Young, and James Rorie.

The professors were held in the very highest estimation by the students, and while there was much honest rivalry between the latter there was also a genuine *esprit de corps* in all the classes and between seniors and juniors. This good-fellowship was extended and cemented by the meetings of the students at the Royal Medical Society which took place every Friday evening during the winter session. The Royal Medical Society of Edinburgh is quite the oldest, wealthiest, and most important medical students' society in the kingdom. It was founded in 1737, and incorporated by Royal Charter in 1778. It has its own buildings, consisting of a large handsome debating hall, a very extensive library (20,000 volumes), chemical and botanical museums, reading-rooms, &c. Its ample and illustrious roll of ordinary members contains many of the greatest names connected with literature, science, and medicine, during the past 164 years; amongst others those of Mark Akenside, Oliver Goldsmith, William Cullen, Alexander Munro, James Gregory, Benjamin Franklin, Joseph Priestley, Percival Pott, Sydney Smith, Robert Liston, Mungo Park, William Sharpey, John Brown, Robert Christison, James Syme, John H. Balfour, Jonathan Pereira, James Young Simpson, John Goodsir, John Hughes Bennett, W. B. Carpenter, W. R. Sanders, Charles Murchison, W. H. Broadbent, Richard Owen, J. Matthews Duncan, and Joseph Lister. At the Friday evening meetings of the society an original paper was read and was keenly debated and discussed. This was the best training in the world for future public men. It taught them the forms of procedure and gave them opportunities of speaking which were simply invaluable. After the debate tea and coffee were served and the students returned to their rooms, exhilarated and refreshed, forgetful of the drudgery of the week.

The training at Edinburgh University in my time was more practical than bookish, and students were taught to think and to act for themselves as independent members of society. This developed character and gave rise to originality of treatment in the various subjects handled. At the end of each winter session the society gave a great dinner to which the professors, extra-mural lecturers, the judges, town dignitaries, and celebrated men were invited. The relations between the students and the professors were of the most cordial description. Syme, Bennett, Simpson, and Goodsir were especial favourites. Syme captivated the students by his indomitable pluck and energy, and by his terse, vigorous way of putting things, as exemplified in his very admirable and much-prized surgical writings. I had the good fortune to be selected as one of his clinical surgical dressers, and subsequently as his resident house surgeon, and I owe him a deep debt of gratitude for many favours received. Syme was public-spirited and masterful and stood up for the rights of the students on all occasions. He was the very embodiment of hospitality. Few *savants* visited Edinburgh who were not entertained by him in right princely fashion. He had as intimate friend and counsellor the celebrated Dr. John Brown, the author of "Rab and his Friends," "The Twa Dogs," "Horæ Subcivæ," &c.

Bennett taught physiology with much acceptance, but it was as a great teacher of clinical medicine that he made his mark and out-distanced all competitors. His work on Clinical Medicine was of the nature of a revelation at the

time it was written. He was noted for his great clinical acumen and slashing oratory, and, at times, for his scathing sarcasm. He was, notwithstanding, one of the kindest and most entertaining of men. As his class assistant for two years I knew him well.

Simpson was a great power in the University. He was justly celebrated for his originality and persuasive eloquence. His introduction of chloroform as an anæsthetic, God's choicest gift to suffering humanity, placed him on a pedestal all his own. His researches in obstetrics, acupressure, archæology, and other subjects carried his fame to all lands. Of him it could fittingly be said,—

"He was a scholar, and a ripe and good one;  
Exceeding wise, fair spoken, and persuading."

Goodsir attracted the students by his studious habits, his transparent honesty of purpose, wide grasp, and lofty ideals. He was without doubt one of the greatest human and comparative anatomists Scotland has produced. He was deeply versed in cells, morphology, and teleology, and anticipated Virchow in much of his work on the first. He was profoundly learned, a philosopher of a high cast, intent on getting at the root of everything. His teaching was considerably above his junior students, but they, with the seniors, listened with rapt attention. He inspired everyone with his own enthusiasm and love of research. He devoted himself soul and body to his work, and for this sacrificed everything, even his health. He had, by continuous over-exertion, brought on paraplegia, as his co-professor in the chair of Logic, the celebrated Sir William Hamilton, had, by similar means, induced hemiplegia.

The late Professor William Sharpey of London told me on one occasion that Goodsir's habit was to read and to work late into the night, and instead of going to bed to throw himself on a sofa for an hour or two and to get to work again. While he was frail, very frail, on his feet, his head and hands were the head and hands of a giant. It was a touching sight to see him in his class-room steadying himself for a great effort—a grand generalisation in human or comparative anatomy or a trenchant criticism of an unworthy or unprincipled opponent. In such cases his luminous grey eyes flashed, a little bead of foamy saliva gathered on his lips, and his arms, if free, went like flails. A storm of applause invariably followed these efforts. The enthusiasm and honesty of purpose of the man were catching and ran through the students like electricity. If his students did not all succeed in completely following the great and original anatomist they all revered and admired him, and none, however obtuse, came quite empty away.

Under Goodsir and his predecessors in the chair of Anatomy—the three Munros, especially Munro *secundus*—the Edinburgh School of Medicine had acquired a great reputation for its elaborate and highly finished dissections, a circumstance which contributed in no small degree to the production of a race of great Edinburgh surgeons. Goodsir and Munro *secundus* were especially celebrated for their superb vermilion injections of animal organs and tissues of all kinds and no finer examples of such injections can anywhere be seen than in the anatomical museum of the University of Edinburgh. Goodsir was a great dissector and preparation-maker and had a hearty and profound appreciation of carefully executed, finished dissections. He had large, powerful, finely shaped hands and wielded the scalpel with a dexterity and grace truly remarkable. He had no patience with slovenly work and his students had no excuse for being bad or even mediocre dissectors. He placed before them the finest models, not only in the dissecting-room, but also in the University anatomical museum.

It should here be stated that there is the greatest possible difference between the dry dissections seen in the dissecting-room and the wet dissections seen in the museum. An ordinary dissecting-room specimen, however well executed, if placed in water or spirit at once becomes a mass of untidiness and fluff. This follows because the fluid softens and floats out the cellular and other tissues and reveals any accidentally cut fibres or flaws. The dissection made under fluid is infinitely more difficult and it is only a master and expert in dissection who can make wet preparations. The time required to make a wet dissection is, moreover, six or eight times greater than that required to make a dry one.

As showing Goodsir's passion for dissection he exclaimed on one occasion, "I love the horse, I have dissected him three times." Goodsir and the famous Queen's sculptor for Scotland, John Steel, with whom I was intimate, dissected

and took plaster casts of the horse together. These I have often examined and admired in Steel's studio. Goodsir had a high appreciation of the most beautiful and most spirited of animals and drove the handsomest horses in Edinburgh.

Goodsir had under him as sub-curator of the anatomical museum and factotum Mr. A. B. Stirling, one of the most remarkable men ever connected with a medical school. Mr. Stirling was a self-made, self-educated man, but naturally a gentleman. By great industry, constant application, and inherent ability, he overcame all obstacles. He could turn his hand to anything. He prepared and injected subjects for dissecting, macerated bones, articulated skeletons, took plaster-of-Paris casts, made glass cases and microscopic cabinets, mounted preparations, re-distilled foul spirit, and attended to the anatomical department generally. Latterly he developed quite a genius for injecting and making microscopic specimens. He was the first to provide microscopic slides on a large scale for students. These were sometimes injected and sometimes stained, and were, as a rule, wonderfully beautiful and illustrative. His spinal cord and brain specimens, of which I have a unique collection, were quite the largest and finest seen in his day. He was the original inventor of the microtome, or graduated microscopic section-cutter, and excelled all others in mechanical microscopic methods. By means of his microtome he made the thinnest microscopic sections on record. To his many accomplishments he added much tact and great kindness of disposition. He was ever ready to help others and his deferential, resourceful, responsive nature made him a great favourite.

I have dwelt upon Professor Goodsir and his able lieutenant because towards the end of my career as a medical student at the University of Edinburgh I was brought much in contact with both.

At the end of the winter session 1857-58 Professor Goodsir gave out as the subject of his senior anatomy gold medal for session 1858-59, "The Arrangement of the Muscular Fibres in the Ventricles of the Vertebrate Heart." This formed the veritable Gordian knot of anatomy and had been a subject of dispute for some 200 years. Vesalius, Albinus, Haller, and De Blainville had all confessed their inability to unravel it. It certainly was a tough piece of work to ask students to undertake, but the problem was quite Goodsirian in character. It was involved and knotty, but explanation there certainly was if it could only be dug out. Many of us stood aghast when the subject of competition was announced, but it gradually settled into our slow, persevering Scotch minds, my own amongst the rest, and became less formidable on closer acquaintance and as time rolled on, on the principle that "familiarity breeds contempt."

Like Don Quixote I determined to have a tilt at the wind-mill. Having fortified myself with all the literature on the subject I could lay hands on I left Edinburgh for my home in Lanarkshire. Arrived there I eagerly scanned and mentally took note of everything written on the structure of the ventricles. The accounts given were meagre, conflicting, and so unsatisfactory that I resolved to investigate the subject *de novo*. I at once proceeded to dissect every kind of heart within reach and in large numbers. I also took the precaution of making careful drawings and notes of each dissection for future reference and comparison. The hearts chiefly employed, at the outset, were those of the sheep, calf, ox, and horse. I soon found that if satisfactory progress was to be made I must devise a new method of dissection, and it was at this juncture that my career as an original dissector and maker of preparations began. After frequent attempts and failures at hardening the ventricles of the heart by means of methylated spirits, chemicals, &c., I hit upon the expedient of stuffing and gently distending them with dry oatmeal, a truly Scottish procedure, and slowly boiling them for from four to five hours. This enabled me to get quit of all the external fat, blood-vessels, nerves, lymphatics, and cellular tissue. I then immersed the ventricles in proof methylated spirit for a fortnight or three weeks to harden them. I found that the ventricles so treated were in the best possible condition for dissecting, and that, as a matter of fact, I could separate and peel off the muscular fibres of the ventricles in layers as I would the layers of an onion. The new mode of dissection virtually gave me the whip-hand of the situation. I soon satisfied myself that not only did the muscular fibres of the ventricles form layers, but that the layers were of two kinds—namely, external and internal—and that the muscular fibres forming the external layers wound in a spiral direction from left to right from above downwards, while the fibres forming the internal

layers wound in an opposite spiral direction from right to left from below upwards; that, in fact, the muscular fibres of the external and internal layers formed two sets of opposite spirals which crossed each other, the crossings becoming more oblique as the fibres constituting the central layers were reached. I subsequently discovered that the muscular fibres forming the external layers were divided into two sets of spirals (a right- and a left-handed set), and that the muscular fibres forming the internal layers were similarly divided into two sets and formed opposite and complementary spirals; the two sets of external spirals being largely continuous with the two sets of internal spirals at the apex and at the base of the ventricles and producing perfect symmetry, the symmetry being most marked in the left ventricle. The ventricles were evidently constructed on the lattice girder principle where stays and struts are employed in every direction to give the greatest amount of strength with the least possible material. Here was an anatomical puzzle of the first magnitude. I was sorely perplexed, the more so as I found that the spiral external muscular fibres were, as stated, for the most part continuous with the spiral internal muscular fibres at both the apex and base of the ventricles. I paused and pondered, but no further light was vouchsafed. A lucky accident came to my assistance. One day I came down to dinner a little earlier than usual, and casually taking up a newspaper commenced to roll it layer upon layer obliquely from one corner as grocers do in making conical paper bags. I observed to my surprise that the lines of print on the several layers of the newspaper ran in different directions according to a graduated order; the lines of print on the outer layers running spirally from left to right downwards and becoming more oblique as the central layer was reached; the lines of print on the inner layers running spirally from right to left upwards and becoming more vertical as the central layers were receded from. The lines of print on the external and internal layers crossed each other at increasing angles letter of X fashion as the central layer was approached. I observed further that the lines of print forming the external layers of the newspaper were continuous at the apex of the cone with the lines of print forming the internal layers of the newspaper, and that if I folded the internal layers of the newspaper outwards at the base of the cone the various internal lines of print corresponded in direction with the various external lines of print, producing continuity of the print at the apex and base respectively, as in the ventricles of the heart, and giving rise to a methodical but complicated series of figure of eight loops, the loops being directed vertically in the superficial layers and transversely in the deeper layers. A closer examination of the newspaper cone with its lines of print revealed a mathematical arrangement of marvellous complexity and beauty; the lines of print on the outside and inside layers of the cone making left and right spirals continuous at apex and base and gradually changing direction and crossing at more oblique angles as the central layer was reached.<sup>1</sup> Here was the whole thing in a nutshell. It was a case of the reading turning in or involuting at the apex and of the reading turning out or evoluting at the base. It was, in short, a mathematical problem of the most intricate yet simple description. I involuntarily cried, "*εὕρηκα*," as I instinctively felt that I had mastered the problem. The rest was easy. It was simply a matter of further dissection and accumulated proof.

When the beginning of the winter session (1858-59) came round I betook myself to Edinburgh with all my belongings in the shape of dissections, drawings, notes, &c. Arrived there, I at once cast about for fresh material. I ransacked the leading fish-shops and obtained the hearts of the cod, salmon, sunfish, fishing frog, and turbot. I was fortunate in securing the heart of a monster shark which was killed in the Firth of Forth. I also called at the large hotels and got several fine turtle hearts. I likewise procured the hearts of the tortoise and alligator. I further made raids on the poulterers and got the hearts of the duck, goose, capercaillie, and turkey, and one splendid swan's heart.

The arrangement of the muscular fibres in the ventricles of the heart of the fish, turtle, &c., was simple and interesting, but did not throw much light on the complicated arrangement met with in the ventricles of the bird and

<sup>1</sup> Two sheets of newspaper set at a certain angle and rolled into a cone, the one within the other, give the two sets of external spiral readings and the two sets of internal spiral readings running in opposite directions which produce perfect symmetry.

mammal. The muscular fibres in the former follow a vertical, oblique, and transverse plicated direction with certain fibres running from without inwards, and the converse, in such a manner as to antagonise each other and to give rise to a porous, spongy condition of the interior of the ventricular wall, an arrangement calculated to confer great strength and to triturate and mix the blood where required. The arrangement of the muscular fibres of the ventricles of the bird was in every respect similar to that occurring in the ventricles of the mammal, with the exception that in the right ventricle of the bird a muscular valve took the place of the fibrous tricuspid valve in the mammal, a modification readily secured by the muscular fibres which in the right ventricle of the bird fold over and are continuous at the base, splitting into two and forming a concave pouch—the concavity of which is directed downwards and towards the septum of the ventricles.

I dissected a comparatively large number of mammalian ventricles, including those of the sheep, calf, ox, horse, deer, pig, porpoise, seal, lion, giraffe, camel, and man. I found that as a whole the ventricles of the sheep gave the best results. I made in all 112 finished dissections and drawings of the ventricles referred to. These dissections and drawings were made in my lodgings in the small hours of the morning when my other work was over for the day, and none of my fellow-students knew that I was at work on the subject. Time passed rapidly and when it was within a fortnight or so of the period fixed for giving in the dissections, drawings, and descriptions thereof I had still much to do. There was nothing for it but to work night and day and this I did continuously for over a week. My dissections, drawings, and essay were labeled "*Per ardua*," Professor Goodsir and all others being ignorant of the author. The day for awarding the medal came round and the great anatomical theatre was crowded with some 400 students all more or less on the *qui vive*. The professor's table was littered with dissections in flat glass jars immersed in pure spirit. There had evidently been a keen competition and curiosity was raised to a high pitch because of the praise lavished upon some student as yet unknown. When the envelopes containing the mottoes of the competitors were opened I found to my surprise that I was the lucky one. A hearty round of applause followed the announcement and everyone seemed pleased. Professor Goodsir asked me to call on him next day which I did. He was anxious that the heart dissections should be presented to the anatomical museum of the University of Edinburgh and mounted in separate glass jars as a collection. He also requested that I should do the mounting myself. I readily assented to both propositions, feeling that the dissections, if valuable, should be deposited in some public institution and available for reference.

During the summer session of 1859 I permanently put up in neat glass jars, with glass tops designed by Professor Goodsir, my 112 original dissections. While so engaged I worked in one of Professor Goodsir's rooms next to that usually occupied by Mr. A. B. Stirling. This was my first experience in mounting preparations permanently for museum purposes. Mr. Stirling imparted much useful information and was very kind. He gave me my first lessons in injecting, showed me how to re-distil soiled spirit, to make and mount microscopic specimens, &c. I was greatly indebted to him in many ways and had a sincere regard for him.

The higher dissection and preparation-making require much patience, skill, and delicacy of manipulation. It also requires much time. I, however, loved the work. During the summer of 1859 I took photographs of my dissections in their jars on the roof of the anatomical department of the University of Edinburgh with a view to illustrate and remodel my essay in memoir form, "*On the Arrangement of the Muscular Fibres in the Ventricles of the Vertebrate Heart*," which was to be communicated to the Royal Society of London.<sup>2</sup>

In the autumn of 1859 Professor Syme, Professor Sharpey, and Professor Allan Thompson paid me a visit at the University of Edinburgh Anatomical Museum to inspect my dissections, and Professor Sharpey was so favourably impressed that he expressed the opinion that they should form the subject of the Croonian Lecture of the Royal Society of London for 1860. His opinion having been

endorsed by the council of the society I was invited to discharge that onerous duty in April of that year. Having had no experience as a lecturer, and being only a third-year medical student, I undertook the task with grave misgiving. The lecture, however, passed off very satisfactorily and evidently gave great satisfaction. I had prepared large transparent models of the ventricles of the heart which showed how the two sets of spiral external fibres became continuous with the two sets of spiral internal fibres at the apex and the base, and how the spiral external and internal fibres formed external and internal layers. These models fairly captivated the audience; the more especially as they were corroborated in every detail by the actual dissections which were on the table beside me. An abstract of my Croonian Lecture was published in the Proceedings of the Royal Society under date April 19th, 1860.

At the end of the winter session 1859-60 Professor Goodsir gave out as the subject of his senior anatomy gold medal, "*The Nerves and Ganglia of the Vertebrate Heart*." The subject, however, was considered so difficult that no one competed for the much-coveted prize. In the summer and autumn of 1860 I had to prepare for the Medical Faculty an original thesis or inaugural dissertation on some scientific or professional subject with a view to graduate in medicine in 1861, and was induced to tackle the dissection of the nerves and ganglia of the heart: a fresh hare was put up for me, and this more swift and cunning than the first. I selected as the title of my thesis, "*The Ganglia and Nerves of the Heart and their Connexion with the Cerebro-spinal and Sympathetic Systems in Mammalia*." The preparation of the said thesis was, as I soon discovered, a very arduous task, as it necessitated my making a series of very difficult and delicate dissections. The dissections were carried on in a private room adjoining the anatomical museum, where I had frequent visits from Professor Goodsir. The interest which he took in the work as it progressed was quite remarkable. I made 52 nerve-dissections in all—namely, three large dissections of the calf, cat, and rabbit showing the connexion of the cardiac nerves with the cerebro-spinal and sympathetic systems of nerves, and 49 smaller dissections showing the distribution of the nerves and ganglia on the large vessels (the aorta and pulmonary artery) at the root of the heart, and the small vessels (the coronary sinus, anterior and posterior coronary arteries, &c.) on the surfaces and in the substance of the heart. I also prepared numerous microscopic specimens of the cardiac ganglia to show how the cardiac nerves were connected with the nerve-cells. The hearts dissected comprised those of man, the horse, calf, sheep, camel, panther, alpaca, and seal.

In this investigation, as in that of the muscular fibres of the ventricles of the heart, I had to devise a new mode of dissection. As everyone knows, the sulci or grooves separating the different portions of the heart, if not the heart itself, are loaded with fat, and in this fat the nerves, in some cases as fine as silk threads, are for the most part lodged. It was of no use attempting to remove the fat by the ordinary methods of dissection; it stuck to the scalpel, and in trying to get rid of it the nerves were displaced, stretched, and, in many cases, cut. I therefore fell back on my hot-water process, but in a modified form. The nerves of the heart were much too delicate to admit of boiling; I consequently employed hot water, a little below the boiling point, and with remarkably good results.

As the cardiac nerves were also too fine to bear handling or rough treatment of any kind I constructed an oblong metal trough to contain the hot water. This was provided with broad flat ledges to support my arms and hands when dissecting; the trough had at either end an arrangement for receiving a revolving spindle which could be elevated and depressed at pleasure. The heart to be dissected was trans-fixed by the spindle which ran through one of the openings of the left auricle and the apex of the left ventricle. The spindle, with the heart fixed on it as explained, could be placed in any convenient part of the trough and elevated or lowered and rotated at will. I was thus enabled to work at the nerves on any part of the surface of the heart without handling the viscus—a matter of very considerable importance where everything was so fragile. When everything was ready and the spindle and heart were in position the trough was filled with nearly boiling water, the water being allowed to rise half an inch or so above the surface of the heart, the nerves of which were dissected under the hot water. The nerves were not dissected in the ordinary way with forceps and scalpel or with forceps and scissors. This would have

<sup>2</sup> The memoir I find was communicated to the Royal Society of London by Professor John Goodsir on Nov. 22nd, 1859. It was published *in extenso* with five plates (72 figures) in the Philosophical Transactions in 1864.

resulted in the stretching, displacing, breaking, and cutting of the nerves. I therefore took an old nerve scalpel and blunted its cutting edge and point, and employed it as a needle for teasing out the fat, cellular tissue, &c., in which the nerves were imbedded. The fat, being partially melted by the hot water, was in the best possible condition for being teased out and, when so treated, it floated away. I never employed a knife and very rarely scissors. By these means I was enabled to dissect the most delicate cardiac nerves *in situ*. They were in no case dragged or displaced. The hot water, moreover, always kept them taut and as they appeared prior to dissection.

The hot-water method of dissecting was, in warm weather, very oppressive and severe on the eyes, but very satisfactory. The more heat and light, the better the result. It had only one drawback: the hearts if not worked off in three or four days at most were apt to become soft and to putrefy. This tendency to decay involved continuous work and a great strain while dissecting, so much so that, looking back, I am inclined to believe that the hot-water nerve-dissections were the most troublesome and difficult I have ever executed. When the hearts which were dissected under hot water were freed from fat, cellular tissue, &c., and the nerves were carefully dissected out, I boiled them, in some cases, in sulphuric ether—an expensive and ticklish process—resulting, in my case, in two rather serious explosions. The hot ether dissolved any tiny particles of fat which had escaped the hot water and my improvised blunted teasing scalpel. The nerve-dissections of the heart prepared in this way presented such a clean smooth surface that in some cases they appeared more or less polished. One great advantage of the process was the non-stretching and keeping of the nerves in exactly their original positions; the hot water, as explained, preventing the nerves from becoming lax. Care had to be exercised as to the temperature of the water employed; if too hot it shrivelled the nerves, if too cold the fat was not melted and could not be teased out.

As it was necessary in certain cases to distinguish the nerves from the finer blood-vessels, capillaries, and lymphatics I resorted in not a few instances to injecting the cardiac blood-vessels. I explained to Mr. Stirling, who worked in an adjoining room, that I would require to employ an injection which could be forced into the blood-vessels in the cold state and which would stand the heat and not shrivel on cooling. He at once suggested a cold injection of flour-and-water coloured with vermilion for the arteries and ultramarine blue for the veins. The idea was to make a stiff paste within the vessels by means of the hot water. This homely injection suited my purpose admirably and nearly all of my injected nerve-dissections of the heart were so treated.

The nerves of the heart, as already indicated, were much more difficult to dissect than the muscular fibres of the ventricles. They were gossamer in texture and the slightest slip of even the blunted scalpel made havoc. It was a case of constant watching and the strain on head, eyes, and hand was very trying. I worked at the nerve-dissections from 8 A.M. to 6 P.M. each day for a whole summer and autumn with an interval of an hour for luncheon. Nine hours' continuous work in and over hot water and in the heat and glare of summer and autumn was, to say the least, not a little fatiguing. Experience, however, taught me that it was necessary to finish the nerve-dissections with all possible dispatch. There was, as stated, a danger of their softening, and even decomposing, if the dissection was too long continued. The hot water and the heat of summer necessarily emphasised the danger. I was, however, between Scylla and Charybdis. A strong light and a strong heat were both necessary to enable me to accomplish the delicate work on which I was engaged.

The summer session of 1860 was one of the busiest of my life. I got up each morning at four o'clock, and, in the early hours wrote an essay on the "Presumption of Survivorship" which secured for me the gold medal in the class of medical jurisprudence. This essay was published in the *British and Foreign Medico-Chirurgical Review* for January, 1865. The nerve-dissections of the heart, as it turned out, were wholly successful, and, with my inaugural dissertation describing them, obtained for me in 1861, when I graduated in medicine, a thesis gold medal, the highest honour the University of Edinburgh confers. The dissertation, which was illustrated and contained drawings of the nerves of the heart and of the microscopic appearances presented by the ganglia of the nerves, was deposited in the University of Edinburgh Library where it may be consulted. The nerve-dissections themselves I presented to the anatomical museum

of my *alma mater* where they can be examined. I mounted them in glass jars with glass lids as I had done the muscular-fibre preparations of the ventricles. The muscular fibre and nerve-dissections of the heart presented by me to the Anatomical Museum of the University of Edinburgh number in all 164. I subsequently photographed the nerve-dissections as I had done the muscular fibre ones, and a short account of them appeared in the proceedings of the Royal Society of Edinburgh for 1865. They were also described and figured in my lectures "On the Physiology of the Circulation in Plants, in the Lower Animals, and in Man," which were originally published in the *Edinburgh Medical Journal* during the years 1872 and 1873, and subsequently republished by Messrs. Macmillan in book form in England and America in 1874, with 150 illustrations on wood.

(To be continued.)

## A NOTE ON NEISSER'S TEST FOR DIPHTHERIA BACILLI.

By L. COBBETT, M.A., M.D. CANTAB., F.R.C.S. ENG.,  
L.R.C.P. LOND.

(From the Pathological Laboratory, Cambridge.)

AMONG the facts which have in recent years come to light about the etiology of diphtheria two stand out as being of special practical importance<sup>1</sup>; I refer to the occurrence of virulent and dangerous diphtheria bacilli in the mouths of certain healthy persons, and to the fact that these persons are to be found only among those who have come into contact with the sick or with others who, like themselves, harbour the bacilli. These facts make it probable, and direct evidence is not wanting to show, that diphtheria is spread by those who, having come into contact with the sick, acquire the bacilli without being themselves ill, and who, not being recognised as infectious, are often allowed to move about freely, and are even sent to school, as much as, if not more than, by those who fall ill of the disease and are for the most part removed to hospital or isolated at home.

The duty of discovering, isolating, and disinfecting the former class of persons is becoming more and more the urgent duty of sanitary authorities. For the fact that they are not scattered broadcast throughout the community, as was once supposed, but are confined to the class of persons whom we conveniently call "contacts," renders their discovery a practical possibility and offers a fair prospect that at least the great majority of them may in the near future be subjected to isolation and antiseptic treatment, with immense advantage to the public health. The systematic use of this method of prevention in Cambridge and Colchester has, however, involved a great amount of work. Therefore anything which simplifies the methods of examination and renders them more certain will materially help to bring about the general adoption of this preventive measure by our sanitary authorities. Since the beginning of the year in Cambridge 900, and in Colchester since August about 1500, cultures have been examined for diphtheria bacilli. These include many from patients and convalescents, but the majority were from healthy contacts, mostly children.

The examination of cultures from healthy persons is apt to be a more arduous and delicate business than the examination of those from patients and convalescents, and often far more depends on an accurate report. It is particularly the case in dealing with private schools that one must be on one's guard against reporting as diphtheria bacilli the longer pseudo-diphtheria forms of Hofmann's bacillus. Moreover, when diphtheria bacilli are present they are often relatively few and are apt to be hidden in a crowd of other forms and therefore difficult to discover. In making the microscopic examinations here referred to the aim has been to make, as far as was possible, each single preparation from a single colony. Under these circumstances bacteria are more easily recognised than when different kinds are mixed together.

<sup>1</sup> I do not here refer to the important fact that diphtheria bacilli persist in the mouths of some convalescents long after the period when they were formerly considered free from infection, because it is already well recognised. It is, however, not so generally recognised that evidence of the complete disappearance of the bacilli cannot be considered satisfactory without three consecutive negative bacteriological examinations.

This is particularly the case when there are a few colonies of diphtheria bacilli among a lot of Hofmann bacilli. When a little group of the former is mixed with a lot of the latter it is difficult to say whether they are a group of the long or giant forms of Hofmann's bacillus or whether they are true diphtheria bacilli. But if a preparation can be made from a single colony which is thus shown to be composed entirely of the long bacilli the difficulty disappears. Several such preparations are made on a single cover-slip and arranged in parallel lines, in order that a considerable number of colonies may be passed in review in a short time. The preparations are stained and mounted in dilute methylene blue (1 in 5).

In all cases of doubt, and in most cases where bacilli bearing even a remote resemblance to the diphtheria or pseudo-diphtheria bacilli were seen, Neisser's stain has also been used. Without its aid diphtheria bacilli would have been undoubtedly missed on several occasions. This occurred when the diphtheria bacilli were mixed with a crowd of Hofmann bacilli, the character of the culture not admitting of the satisfactory examination of single colonies. In these cases Neisser's stain first revealed the diphtheria bacilli, and their subsequent isolation and examination of pure cultures showed that the stain had given the right indication. In such cases when the colonies of diphtheria bacilli are few in number and crowded with other sorts it is often difficult and tedious to prepare a second cover-slip which shall contain the bacilli which one wishes to subject to Neisser's stain. Hence arises the necessity for applying the special stain to the original cover-slip. This may be floated off, after removing the cedar oil, with filter-paper soaked in xylol, washed for a minute in 5 per cent. acetic acid, and stained by the ordinary Neisser method.

But frequently one desires to apply the test to a particular group of bacilli without moving the slide from the microscope. This led me to try the device of applying a drop of 5 per cent. acetic acid to one edge of the cover-slip and drawing the fluid under the glass by means of a small piece of filter-paper placed on the other side. If the bacilli are watched while the acid is entering under the cover-slip one sees first a current of fluid sweeping up loose bacilli and hurrying them away. A blue cloud next appears and blots out everything for a second and passes on. Then once again the field is bright and clear, and the diphtheria bacilli, if such they are, show the characteristic polar bodies as if stained in the way Neisser recommended; only the bodies of the bacilli are not brown, but pale-blue. Hofmann's bacilli also have a fairly characteristic appearance when treated in this way. They do not so easily decolourise as the diphtheria bacillus and at about the middle of each half a good deal of blue usually remains. With diphtheria bacilli the change is instantaneous, and the picture revealed is often, I think, not inferior to that of a Neisser specimen stained in the usual way. The method is so quick that it takes no appreciable time and can therefore be applied, without causing delay, to every preparation which contains micro-organisms which have the remotest resemblance to the diphtheria bacilli. I now constantly use it. For a long time I was in the habit of controlling the acid test by staining another preparation by the usual Neisser method. The results showed that when typical polar bodies are disclosed by the acid there is no necessity to use the full Neisser method. The utility of the latter seems to be restricted to the cases where the acid method gives an indecisive result. But it must be added that when the acid test is unsatisfactory the orthodox Neisser stain does not give a much better result.

I have already expressed my great appreciation of Neisser's method as a means of distinguishing the diphtheria from the pseudo-diphtheria bacillus, but it is not infallible. More than once a diphtheria bacillus (subsequently proved to be an acid-former and to be virulent for guinea-pigs) has been found, which showed no polar bodies when stained with the usual Neisser method.<sup>2</sup> And more frequently cultures of diphtheria bacilli have been found which showed but few polar bodies and those very small and difficult to find. In such cases I find little or no advantage in staining for two minutes in the acid blue as has recently been recommended. On the other hand, when Hofmann's bacilli are treated with Neisser's stain (or with acetic acid after methylene blue) I have several times seen a few bacilli which showed very minute polar bodies. These cultures had been sown on the previous day and were therefore about 24 hours old

or less. Such bacilli have been isolated and investigated with the result that they proved to be Hofmann bacilli.

Neisser's stain, therefore, fails to show polar bodies in a small proportion of true diphtheria bacilli. And it shows minute and doubtful polar bodies in a few Hofmann bacilli. This fact detracts very little from the value of the stain as a differential test, because the exceptions to the general rule are so few. We must, then, hold that a good positive reaction is positive evidence that the bacilli are diphtheria bacilli, that a definite negative reaction is valuable evidence, but not alone conclusive, while a poor or doubtful reaction is not of much value either way.

In conclusion, I feel justified in recommending the acetic acid modification of Neisser's stain which I have described to the notice of others engaged in this work.

Cambridge.

### SOME PRACTICAL POINTS IN THE TREATMENT OF CASES OF FRACTURED PELVIS WITH RUPTURED BLADDER AND OF CASES OF RUPTURED URETHRA.

By C. J. BOND, F.R.C.S. ENG.,  
SURGEON TO THE LEICESTER INFIRMARY.

THERE is a certain kind of accident which seems especially characteristic of the hunting field, in which the horse rolls on the prostrate rider, crushing the pelvis and causing injuries which frequently involve the bladder or the urethra, or both. Since the report of cases by me in THE LANCET of August 10th, 1899, p. 260, describing a method of draining the injured bladder by a combined supra- and infra-pubic route, on a special staff, several such injuries have come under my notice. In all these the condition of the patient after injury is much alike. There is great pain on any movement disturbing the fractured bones, while if the thighs are gently raised they can be flexed slightly on the pelvis without undue pain. There is the tender, board-like, dull area above the pubes, spreading laterally to the groins, which is due to the extravasation of blood, and in the case of injury to the bladder the addition of extravasated urine in the pre-vesical space. There is inability to empty the bladder, and if on gently attempting to pass a catheter obstruction be encountered close to the neck of the bladder, and especially if blood be drawn and the bladder cannot be reached, then in all probability injury of the urethra also exists.

There are one or two points about the combination of fractured pelvis with injury to the bladder and urethra which are worth notice.

In all my cases of fractured pelvis in which the bladder has been torn the rent has been extra-peritoneal, and in the anterior wall of the bladder, and in my opinion it is caused by the direct puncturing of the vesical wall by the fractured bones. This is so constant an association that the pre-vesical space should be opened first in all these cases of bladder injury, the presence of blood and urine will then reveal the nature of the injury, and the peritoneum need not be opened, unless injured, as the posterior wall of the bladder can be explored by the finger from within the viscus.

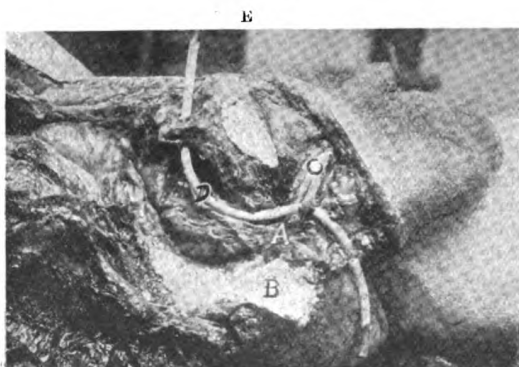
With regard to the urethra, the position of the patient's body in relation to the crush seems to be the deciding factor. In my experience the urethra gets injured where, after the fall, the crush comes with the patient lying on his side, thus driving the fractured sides of the pubic arch together like the blades of a pair of scissors and injuring or completely dividing the urethra in its membranous portion, just in front of the apex of the prostate. On the other hand, where the pelvis is crushed from before back the urethra is more likely to escape. In the commoner example of ruptured urethra, the result of a fall astride some beam or other obstacle, the injury is the result of the crushing of the soft urethra against the unyielding bones of the pubic arch, and the anterior or distal portion is torn away from the more fixed posterior or proximal end. In this accident the rupture generally occurs rather further forward than in fractured pelvis, and the separation of the torn ends may be considerable—as much as one or two inches.

<sup>2</sup> In sub-cultures they were either poorly developed or absent.

The chief point of interest, however, in these cases of fractured pelvis is the question of treatment. Prompt surgical interference is essential. It is not enough to attempt to pass a catheter, or even to succeed in doing so, if on doing so the presence of blood in the urine, or the absence of urine, or other signs still leave the question of injury to the bladder in doubt. We must remember that while fractured pelvis apart from injury to viscera is only a moderately serious accident, fractured pelvis with injury to the bladder is a very dangerous and, if unrelieved, fatal injury. Consequently in these cases it is better, under antiseptic precautions, in the first instance to cut down between the recti in front of the peritoneum and examine the pre-vesical space. If the bladder is ruptured considerable quantities of liquid blood and urine will well up from the depths of the pelvis, and this must be sponged out and the condition of the anterior wall of the bladder carefully ascertained. If the rent is anywhere within reach it can, and should, be carefully closed in the usual way with sutures, but if it extends down to the neck and into the prostate suture will probably be impossible, or will fail, and it is necessary to provide efficient drainage for the bladder. Now, the only really efficient way of draining the bladder is by a combined supra- and infra-pubic drain, and this is best accompanied by passing some such instrument as a sound, guided by the finger through the rent in the anterior wall, on through the internal meatus, and through the prostatic urethra, and making it present through the membranous urethra below the bulb under the skin in the perineum. Here it can be readily cut down upon in the middle line without dissection and the sound with the attached drainage-tube drawn through. It is not necessary to place the patient in the lithotomy position to accomplish this; the sound may be readily cut down upon after gently separating the partially flexed thighs.

The exact position of the lateral openings or drainage holes in the portion of the tube lying in the bladder is a matter of importance. They should be situated at the lowest part of the bladder and close to the little collar which projects from the tube and prevents it sliding further through the sphincter; the rent in the bladder wall can be closed round the tube now as much as possible, and if the upper end be brought out through the suprapubic opening and fixed at the right level, the complete drainage and irrigation of the bladder are well under control. (Fig. 1.)

FIG. 1.



From photograph. Showing side view of the pelvis after median section with a "through" supra- and infra-pubic drainage-tube in position. A, Apex of the prostate. B, The rectum laid open. C, Spongy urethra containing catheter. D, "Through" tube lying in the cavity of the bladder. E, Symphysis pubis.

It is also quite certain that the presence of the direct, or perineal, drain does not prejudice the healing and restoration of the natural channel of the urethra, for in a case in which the bladder was ruptured and the urethra was cut clean across in the membranous portion by the scissor-like action of the pubic bones, the perineal tube was retained with the catheter for a period of two months. The eventual condition of the urethra on complete recovery was all that could be desired; a No. 12 Jacques catheter could be passed with ease, a full-sized stream was passed at normal intervals, and the bladder was capable of retaining one and a half pints of urine.

Further, in the treatment of the ordinary form of ruptured urethra from direct violence, without fracture of the pelvis or injury to the bladder, it is very desirable—indeed, I think necessary—in order to obtain primary union of the sutured ends without contraction and eventual stricture, that the urine should be conducted externally behind the sutured portion and that no catheter or foreign body should be left traversing the sutured urethra. Union after careful coaptation should first be obtained, and then an instrument should be subsequently passed to stretch gently the urethra at the site of suture. In fact, the usual plan of suturing the urethra over a catheter which is then left in the bladder is almost sure to lead to local or urethral sepsis, and consequently union with contractile or scar tissue. If the perineal tube can be passed through a longitudinal incision into the urethra, and so into the bladder behind the line of suture, then not only is the bladder efficiently drained and the urethral canal at the sutured part cut off, but the presence of the tube in the proximal portion of the urethra fixes this part of the canal and prevents the retraction and drawing up of this portion of the tube away from the distal portion by the action of the muscles at the floor of the pelvis.

So much, then, for the direct or perineal tube; its size must be regulated by the age of the patient, and for the adult, drainage-tubing of the diameter of No. 14 or No. 16, English catheter scale, may be used.

When the time comes to discontinue the combined supra- and infra-pubic drain the tube may either be drawn within the bladder and the suprapubic opening allowed to close, or the vacuum Sprengel pump bladder-drain may be used for a time, the suprapubic opening still being retained. The pressure of the rigid silver tube with the inclosed glass tube of this apparatus, however, after a time makes the bladder very sore and is very irksome to the patient, while any attempt to attach the suction action to any soft rubber tube without a rigid outer or reservoir tube will probably be unsuccessful. The contrivance, which worked most efficiently and with greatest comfort after the discontinuance of the rigid tube, and until the suprapubic sinus leading into the bladder was so far shut off as to prevent any risk of extravasation into the pre-vesical tissues, was an improvised form of suprapubic urinal made out of an ordinary india-rubber ice-bag by cutting away a part of the front or upper surface and by passing a No. 14 empyema tube or piece of flanged india-rubber tubing through a puncture in the lower or posterior wall of the ice-bag with the flange resting securely on the inner surface. The tube with the lateral and terminal eye passes into the bladder, and the partly-covered-in ice-bag receptacle, while opposing no obstacle to the free escape of urine, keeps the patient quite dry, and if a portion of wool be placed within the bag it need only be changed twice in the night. Moreover, owing to the circular flange or rim the urine is still retained and the patient is kept dry in the sitting or upright, as well as in the lying position, and I think the same mechanism might prove useful in the case of the gall-bladder or other situations where collections of fluid require constant and not intermittent drainage.

I have already remarked that the perineal opening and the presence of the drainage-tube through the perineum do not prejudice the urethral repair in cases of ruptured urethra. No doubt after measures have been taken to drain the bladder and prevent the extravasation of urine in these cases, the next important point to be kept in mind and aimed at is the re-establishment in its entirety of the urethral canal. The sad condition of persons who after injury are victims of incurable traumatic stricture is a standing warning on this point.

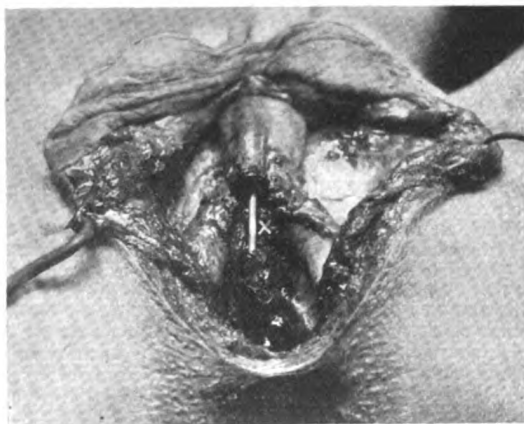
Now if the perineal drainage-tube has been passed through the perineum in the way mentioned above—namely, by passing a sound through the internal meatus and cutting down on this in the perineum and the drainage-tube drawn through—the canal is brought under control and the subsequent passage of a catheter is facilitated. It is only then necessary, when the patient's condition will allow of an attempt being made to restore the penile route, to pass a sound or silver catheter through the penis and out at the perineal wound, and attach a Jacques catheter and draw it through, and by again passing the sound through the internal meatus by way of the suprapubic opening and out at the perineum, to attach the free end of the catheter and withdraw it on the sound into the bladder. The catheter may then be left in the urethra and the perineal tube may be retained as well as long as

may be necessary. This restoration of the urethra may be done by a catheter as late as a fortnight after the injury with excellent results as far as the future urethral canal is concerned. In one case after this treatment the condition of the urethra six months after the injury is practically sound. A No. 12 Jacques catheter can be passed easily and a normal stream passed. The value of a sure guide to the ruptured proximal end is very great, and in the absence of this guide it may be impossible to pass a catheter without a prolonged perineal dissection.

Thus to recapitulate shortly the principles which should guide us in the treatment of these severe injuries I should say that if the symptoms point to an injury to the bladder in the anterior wall, an attempt should be made to close the rent in this situation in the same way that we close wounds of the posterior wall. Owing, however, to difficulties connected with the position of the wound, if at all low down, this may be impossible, in which case—and, indeed, in any case—it is essential to prevent extravasation and to drain the bladder by a perineal route. This is best done by a tube passed through the internal meatus and out at the situation of the urethral rupture if such exist. In case the condition of the patient will allow of a further attempt to restore the urethral canal by suture after perineal dissection, then the perineal tube should be brought out, if possible, through an incision in the floor of the membranous urethra behind or on the bladder side of the line of suture. If this can be done satisfactorily it is better not to leave a catheter along the whole urethral route. If the conditions will not allow of the suturing of the torn urethra at the time, then the perineal tube must be brought out through the open or torn end of the proximal urethra, and this perineal opening may be utilised at a later stage for the readier passage of a catheter along the penile urethra into the bladder. Further, careful and efficient provision should be made for the drainage of the pre-vesical space and surrounding area in view of the probable subsequent leakage of urine. If necessary, tubes should be brought out under one or both pubic rami at the perineum by cutting on a sound passed down from the suprapubic incision. In the possible event of failure to maintain complete asepsis and if subsequent suppuration follow, it may be necessary to open abscesses in the buttocks and in various situations.

One other point remains. In some cases of ruptured urethra by direct violence without fracture of the pelvis it

FIG. 2.

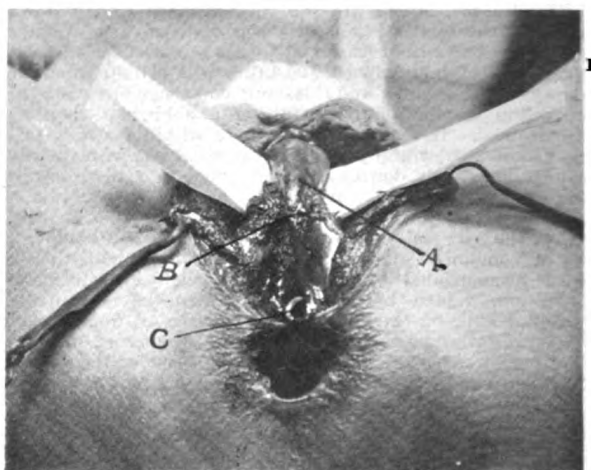


From photograph of dissection of the perineum, showing complete transverse rupture of the spongy urethra and wide separation of the ruptured ends. X shows a sound traversing the interval between the separated portions of the urethra.

sometimes happens that owing to extravasation of urine and suppuration, from delay in treatment, it is impossible to deal with the rupture by suture at the time of the patient's admission into the hospital. In such a case, after the immediate relief of the extravasation and its results by free incision and the perineal drainage of the bladder, the difficulty of the wide separation of the torn ends may be lessened later by a free detachment of the distal spongy portion together with the supporting corpora

cavernosa from the front of the pubes and the partial separation of the suspensory ligament of the penis. In this way the distal ruptured end of the urethra may be brought down from one to two and a half inches, and the union of the two ends may be successfully accomplished. This liberation of the urethra with its supporting corpora cavernosa as a whole is easily and quickly done, and is far preferable to trying to detach the distal spongy urethra from its

FIG. 3.



Shows the same urethra as in Fig. 2 sutured and the ends approximated by the liberation of the distal or spongy urethra. A, Spongy urethra. B, Line of suture. C, Opening of drainage-tube passing into the bladder through an incision in the membranous urethra behind the line of the suture. D, Spatula passed under detached urethra and corpora cavernosa.

supporting structures, and will probably give that amount of increased apposition and relief of tension which may ensure satisfactory union, and if any difficulty occurs in bringing the ends of the urethra together this manoeuvre should be done at once. (Figs. 2 and 3.)

Leicester

## SULPHUR IN THE TREATMENT OF DYSENTERY.

By G. E. RICHMOND, B.A., B.Sc., M.B., B.S. LOND.,  
LATE OF THE IMPERIAL YEOMANRY HOSPITAL, PRETORIA.

DURING an experience of the treatment of dysentery at the Imperial Yeomanry Hospital at Deelfontein, South Africa,<sup>1</sup> I originally came to the conclusion that of a multitude of remedies recommended as a cure for this most rebellious complaint, ipecacuanha guarded by opium and combined with warmth and rest in bed formed the best treatment. But in some cases even when treated in this way the patients derived very little benefit and ultimately died. For example, one patient at Deelfontein, admitted as a convalescent from enteric fever, developed dysentery three or four days after his admission, and although given large (half drachm) doses of ipecacuanha every four hours on two different days, his dysentery continued, and falling into a typhoid condition with muttering delirium and constant diarrhoea and painful tenesmus, he died on the fourth day of the disease. Such a striking example of the failure of ipecacuanha naturally made one speculate on other possible remedies. The use of sulphur in dysentery was suggested on the analogy of the treatment of anthrax by sulphur, as has been advocated by Mr. Arbuthnot Lane.<sup>2</sup> Ipecacuanha was formerly employed locally in the treatment of anthrax, and it seemed natural to suppose that if sulphur was a more successful germicide

<sup>1</sup> Sulphur in the Treatment of Dysentery, THE LANCET, June 15th, 1901, p. 1676.

<sup>2</sup> The Medical Week, Dec., 8th, 1893. A Year's Experience of the Use of Sulphur in Surgery, Transactions of the Royal Medical and Chirurgical Society, 1895.

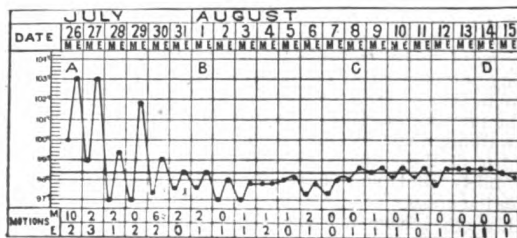
in the case of anthrax, it might probably be a correspondingly more successful treatment in dysentery. The results have justified these expectations, for in every case treated with sulphur a cure has resulted and there seemed to be little or no tendency for relapses or chronic conditions of alternating diarrhoea and constipation to occur. To the patients themselves it was a great boon, as the obstinate vomiting caused by ipecacuanha was entirely absent, nor was it at all necessary to starve them when taking sulphur as when taking ipecacuanha. Every patient was ordered farinaceous diet from the first; it is of the utmost importance that butcher's meat of all kinds should be most rigorously excluded from the diet until the diarrhoea has ceased for a week. Twenty grains of sublimed sulphur combined with five grains of Dover's powder were ordered every four hours, and from the administration of the first powder the general condition of the patient became much more comfortable; the diarrhoea and the distressing tenesmus and griping pains were greatly relieved at once, whilst the passage of blood and mucus was as a rule stopped in two days, whilst when treated with sulphate of magnesia or ipecacuanha a patient seldom owed to any amelioration of his general condition under 24 hours from the commencement of the treatment.

The detailed notes of the cases at Deelfontein are not now available, but since July 4th in the Imperial Yeomanry Hospital at Pretoria I have had under my care in a ward specially set apart for dysentery patients 11 acute cases and 10 cases of chronic diarrhoea following previous attacks of acute dysentery. All the acute cases have been treated with sulphur and Dover's powder and the chronic cases with sulphur alone, and in every instance a cure has resulted. The opium brings comfort to the patient and by its inhibitory effect upon intestinal peristalsis controls the diarrhoea and keeps the ulcerated portion of the intestine at rest, and by this means allows the antiseptic qualities of the sulphur to take effect under the most favourable circumstances. The precise mode of action of sulphur in the intestines is more or less a matter of conjecture; it is, however, reasonable to believe that sulphuretted hydrogen and other sulphur acids are formed and inhibit the growth of the micro-organism of dysentery. The amoeba has been carefully searched for by Dr. J. W. Washbourn and Sergeant J. Mann, the bacteriologist at Deelfontein and Pretoria Imperial Yeomanry Hospitals, but has never been found.

It is perhaps a justifiable speculation that the dysentery of South Africa is, like the epidemic dysentery of Japan (investigated by Shiga) and the dysentery of the Philippines (Flexner), due to a specific bacillus morphologically approaching the type of the bacillus typhosus. The following cases are illustrative of acute and chronic dysentery.

**CASE 1. Acute dysentery.**—Private —, aged 18 years, was admitted on July 26th, suffering from acute dysentery. The patient had been ill for five days with diarrhoea and for the last two days his bowels had been opened 10 times a day and the motions consisted of nothing but blood and mucus. Tenesmus was very troublesome and he complained of severe griping pains in the abdomen, especially at night. In the evening his temperature rose to 103° F., there were sordes on the lips, and he was in great distress and very feverish. His bowels were opened 12 times on the day of admission and treatment commenced at 10 p.m. (Fig. 1). On the 27th he

FIG. 1.



A, Admission in forenoon. From 10 p.m. sulphur and Dover's powder every four hours. B, Sulphur and Dover's powder three times a day. C, 20 grains of sulphur three times a day. D, Chicken diet, port, eggs, and custard.

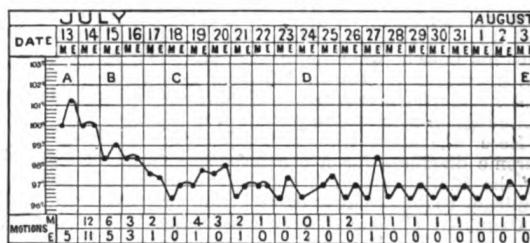
was in much less pain and the tenesmus was relieved; his bowels had been opened only twice in the night of the 26th and they were opened three times during this day. His

temperature again rose to 103°. On the 28th his temperature only rose to 99.2° in the evening; his bowels were opened twice during the previous night and only once in the day and no blood and mucus were passed after this morning with the exception of a trace of blood and mucus with one motion on August 1st. On the 29th his temperature again rose to 101.8° in the evening and there were six movements of the bowels in the night. After this his temperature remained normal or subnormal and he made an uninterrupted recovery.

Judging from the evening temperature and the constitutional symptoms in this case it seems probable that severe ulceration with absorption of toxic products was taking place, which was cured (in five days) by the administration of sulphur and Dover's powders every four hours.

**CASE 2. Acute dysentery.**—Private —, aged 23 years, was admitted on July 13th. He had been ill with dysentery for three days; he had passed blood and mucus from the first, and the diarrhoea had been very frequent, his bowels being opened from 20 to 30 times a day right up to the time of admission. He complained of considerable abdominal pain and griping and was troubled with tenesmus (Fig. 2).

FIG. 2.



A, Admission in forenoon; one drachm of sulphate of magnesia every hour; plain milk. B, Sulphur and Dover's powder every four hours; farinaceous diet. C, 20 grains of sulphur twice a day. Sulphur and Dover's powder at night. D, 20 grains of sulphur three times a day. E, Chicken diet, port, eggs, and custard.

He was given one drachm of sulphate of magnesia every hour on July 13th and 14th through the day and night and plain milk diet. I saw him for the first time on the 14th, and as his last motion contained some faecal matter the sulphate of magnesia treatment was continued. But on the 15th as the number of motions were still as many as 17 in the 24 hours and still consisted principally of blood and mucus, and as the patient still complained bitterly of the griping pains and tenesmus, it seemed advisable to change the treatment to a combination of 20 grains of sulphur and five grains of Dover's powder every four hours, and to give the usual farinaceous diet. His bowels were opened five times during the day and three times during the night and considerable relief was given to the griping and tenesmus. On the 16th the motions were chiefly faecal, containing only traces of blood and mucus. On the 17th his bowels were opened only twice in 24 hours and contained only slight traces of blood and mucus. No blood or mucus was passed after this day and on the 19th a normally-formed motion was passed and the patient was quite comfortable. On the 24th he was ordered 20 grains of sulphur three times a day, and on August 3rd chicken diet was given and no diarrhoea resulted. On the 11th convalescent diet was taken without any untoward result.

Here a patient suffering from dysentery with very severe diarrhoea was cured of his diarrhoea in five days and the passage of blood and mucus was practically stopped in 24 hours, with the exception of the presence of traces of blood and mucus for two days longer. He was treated for 48 hours with sulphate of magnesia, and at the end of this time his motions still consisted principally of blood and mucus, and he had received very little relief to the pain and tenesmus.

**CASE 3. Acute dysentery.**—Private —, aged 32 years, brother of the preceding patient, was admitted on July 13th. He had been suffering from dysentery for three days. His bowels had been opened from 20 to 30 times in 24 hours and he had passed blood and mucus from the commencement of his attack. Griping pains and tenesmus were very severe. His temperature was 99.4° F. on the 14th. Sulphur and Dover's powders were ordered every four hours. His bowels

were opened five times during the day but not at all in the night; the motions consisted of nothing but blood and mucus, except the last one, which contained faecal matter with traces only of blood and mucus. After this he made an uninterrupted recovery, passing traces of blood and mucus for three days longer and once again on the 23rd. On the 16th 20 grains of sulphur were ordered three times a day without Dover's powder. Here the passage of blood and mucus practically ceased in 24 hours and the diarrhoea was quickly controlled. He showed no tendency to relapse when given chicken and convalescent diet.

CASE 4. *Chronic diarrhoea following acute dysentery.*—Trooper —, aged 31 years, was admitted on June 21st. He had had two severe attacks of dysentery, the first one in February and the second in April, and since the first attack he had suffered from chronic diarrhoea. His bowels had been very irregular, he had had sometimes as many as eight or nine motions in 24 hours and often four or five motions, whilst at other times he was constipated for two whole days at a time; occasionally he passed a little mucus but no blood. He had had several kinds of treatment, including bismuth and opium, with little or no benefit. On July 12th he was given farinaceous diet and four ounces of port and 20 grains of sublimed sulphur were ordered three times a day. On the 13th and 14th his bowels were opened four times each day and three times on the 19th. On the other days and after this his bowels were quite regular, being opened once or twice each day. On the 27th he was given chicken diet and no diarrhoea resulted, and his bowels continued to be quite regular after the sulphur was omitted.

Here a patient who had suffered from dysentery and chronic diarrhoea for five months was cured in a few days by the administration of the sulphur alone and showed no tendency to relapse after cessation of the treatment.

CASE 5. *Chronic diarrhoea following acute dysentery.*—Sergeant —, Imperial Yeomanry, aged 24 years, was admitted on July 1st. He had had a severe attack of dysentery in March—i.e., four months previously—and had suffered from dysentery and chronic diarrhoea on and off ever since. He had had different forms of treatment, but his bowels were still opened three or four times a day on an average although he was taking bismuth and opium, and sometimes as many as seven motions occurred in the 24 hours. On the 17th he was ordered 20 grains of sulphur three times a day. On the 18th his bowels were opened three times and on the 22nd five times as the result of a simple enema. On the 28th his temperature became subnormal and remained so for nine days. After the 23rd—i.e., six days after treatment began—his bowels were quite regular, being opened generally once a day and sometimes twice. He showed no tendency to relapse when given chicken and convalescent diet.

This patient had suffered from chronic diarrhoea for four months and was practically no better for the treatment which he had received, but with sulphur he was practically cured in a week.

Sulphur is from its solidity and non-absorbability an ideal intestinal antiseptic; that it passes along the whole intestinal tract is shown from the fact that it can be seen suspended as a yellow powder in watery motions. With sulphur the stools become much less offensive and no trouble arises from flatulence. Whatever is the true cause of dysentery sulphur seems capable of controlling and curing it, and it is possible that it may be found of service in cases of summer diarrhoea in England and perhaps in cases of enteric fever.

In one case of phthisis, in which the patient was admitted with (?) tuberculous ulceration of the colon following a previous attack of dysentery three months before, sulphur was given with great benefit and all abdominal pain and hyperaesthesia disappeared. The apparent success of sulphur in dysentery raises an interesting question as to the rationale of the good results attending the administration of magnesium and sodium sulphate in the early stages of dysentery. Are these results due to the purgative properties of these drugs acting as an intestinal flux and so washing away the cause of the disease and allowing nature to effect a cure? Or do they also exert an inimical action on the growth of the micro-organism owing to the presence of sulphur acids?

In conclusion, I have to thank Colonel C. R. Kilkelly, Commandant and Principal Medical Officer of the Imperial Yeomanry Hospital, Pretoria, for allowing me to collect the dysentery cases in a special ward and for giving me every facility in testing the efficacy of sulphur in the treatment

of dysentery. Dr. H. D. Rolleston, consulting physician to this hospital, has always given me every encouragement and assistance that lay in his power.

## THE TREATMENT OF CONGENITAL HIP DISPLACEMENT, WITH SPECIAL REFERENCE TO THE AMBULATORY METHOD.

By H. A. REEVES, F.R.C.S. EDIN.,  
SENIOR SURGEON TO THE ROYAL ORTHOPÆDIC HOSPITAL; CONSULTING SURGEON TO THE HOSPITAL FOR WOMEN, SOHO; AND FOR MANY YEARS ON THE SURGICAL STAFF OF THE LONDON HOSPITAL.

WHEN the pathological anatomy of this malformation was first described it was thought that no operation could remedy it. I am one of those still holding that view, as the specimens which I have seen in museums and those figured in books—in addition to a post-mortem examination in the case of a young man, aged 29 years, under my care at the London Hospital in which the parts were dissected by Mr. A. A. Lipscomb (the house surgeon) and myself and which is described on page 299 of my book on "Bodily Deformities"—show such conditions that the formation of anything like a competent socket in addition to the frequent presence of deformed and altered relations of the head and neck of the femur are such as to repel rather than to invite an open operation. The study of many x-ray photographs from cases under my care confirm this opinion. I have never been able to satisfy myself that any cutting procedure—except, perhaps, tenotomy of the muscles attached to and about the great trochanter and adductors—offered anything like a permanent prospect of what I should consider a practical cure or that the results could in the slightest attempt to compete with the mobility and usefulness of the limb before operation.

I have only seen three cases which have been submitted to the open operation though I am most desirous of being convinced, if possible, of its usefulness. One was seen a few months after the operation and the pain at the slightest attempt at motion was unbearable, and ankylosis seemed fairly well established. Two of these cases had been under my care and were operated on abroad. One escaped death very narrowly, but happily recovered with ankylosis and a painful limb; the other was in no way improved as to position and was much injured as to the free mobility which existed prior to the operation. These latter cases were seen about two years after the operation and they were both brought to me seeking some relief from the pain and disability. Moreover, those cases which have been shown at societies in this country after an open operation have in no way been regarded as successes. When one considers the comparatively slight disability which is common in unilateral cases—those most commonly operated upon—and that the subjects can walk, run, jump, dance, and possess all the movements of the joint except complete abduction, though they naturally tire sooner than those with normal hips, any result yet obtained by any partisan of the open method, however successful he may consider it, could not for one moment compare with the conditions of mobility and usefulness above mentioned. When one remembers that not a few deaths have occurred, it is obviously the duty of all cautious surgeons—and in dealing with life and limb surely one ought to be careful—to ponder very seriously before telling parents that by an open operation the deformity can be remedied or even substantially improved with retention of the previous mobility. Anyone keeping his eyes open can see walking about in London or any large city a considerable number of these cases. They have managed to get through life fairly well and have fortunately escaped the open operation craze.

Although I have not the slightest desire, so far as my personal experience and opinion have weight, in any way to hamper any operative procedure which can be shown to be followed by anything like an adequate return for the undoubted risks run, and though I shall be ready to confess myself wrong when a sufficient number of *convincing cases* have been shown to me, at present I cannot conscientiously say that I consider the operation justifiable—i.e., I should consider myself blameworthy were I to do, or even to recommend

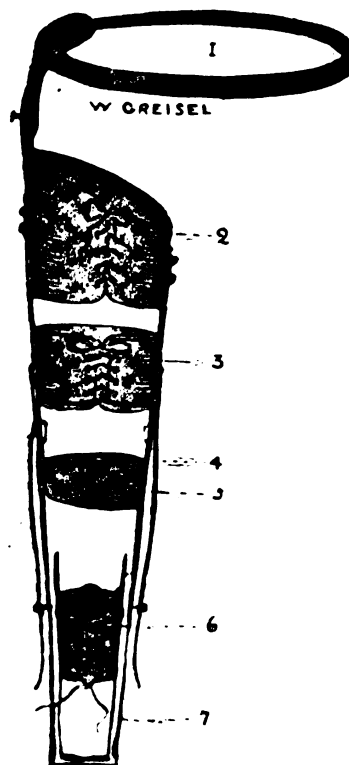
it, with the results such as are at present known to myself and others. It is noteworthy that one hears less about it being done in this country, and also that the German surgeons who have largely practised it have very considerably narrowed its sphere, and if one refers to modern orthopædic works and papers written by specialists of large experience, or by general surgeons, who naturally have a much more limited field, one finds that those who still practise it only in selected cases are able but to give very unsatisfactory accounts, and though one is apt to extol one's results, it is pleasant to find that English and American orthopædists make no claim to have cured the deformity and to have fully re-established the normal functions of the joint.

Now it is very easy for those who differ from me, and who wish to convert sceptics like myself, to adopt the only plan which is likely to convince. Let them have biographic films taken of their patients, walking, running, jumping, &c., before an operation, and similar ones six months, 12 months, and two years or more after it, so that the usefulness of the limb can be compared with what it was before operation and if they can show that these are anything like equal, and that the head remains firmly in the new socket, then there will be justification for it, especially if the local deformity, lordosis, waddle, &c., have been removed. In joint operations, even if one cartilaginous surface be left, ankylosis is very difficult to prevent, and though the cartilage of the femoral head is generally left intact in this operation, more or less ankylosis appears to be the usual result and displacement after the operation is not very uncommon. Having done a considerable number of arthrodeses and having had occasion to excise, partially or completely, a large number of joints in my time, this difficulty has been brought home to me, and very especially in the case of the metatarso-phalangeal joint of the great toe, and I have found that after removal of the head of the first metatarsal only, leaving the cartilage of the base of the first phalanx unharmed, firm immovable ankylosis, apparently bony, has occurred. Every surgeon who has had much to do with joint injury and disease knows how difficult it is to restore and to keep up motion even after adhesions have been freely broken down. One has to keep on working the joint under anaesthesia and too often the patient tires sooner than the surgeon because of the pain occasioned by the passive movements necessary. In the open operation absolute asepsis cannot be guaranteed, however careful one may be, and suppuration nearly always means firm ankylosis and even something much more grave, such as excision of the joint or amputation, or even deaths, of which, unfortunately, too many have already occurred. I think it may be granted that so far as important functional results go one need not, without much more convincing evidence, say any more about the open method except that it was first performed by Karewski—not Lorenz or Hoffa—for reposition of a paralytic dislocation, and as these can usually be easily reduced I presume he wished to get ankylosis after reduction. Some operators seem to think that if they get lengthening of the limb with disappearance of the slight lordosis, ankylosis is a good result!

After having given a fair trial to the corset which was supposed to press upon the trochanters and to keep the femur down—which it never did—I became content for a time with ordering a high-soled boot; then I gave a fair trial to the method of recumbency and extension as described by the late Mr. W. Adams (formerly surgeon to the Royal Orthopædic Hospital). The long confinement to bed—usually two years—was irksome and prejudicial to the health, so that I thought out and adopted, several years ago, a method to keep the femoral head, reduced into position if possible, in place and to maintain it there, while allowing the patient to get about. I had used this instrument for about 18 months before I demonstrated it at the first meeting of the British Orthopædic Society and I believe an account of it is in the first volume of its Transactions. If I remember correctly M. M. Calot and another French surgeon were present, and many members of the society. Another fact with reference to this mode of treatment is noteworthy. Several years ago a German gentleman—whose name I forget but who came to the Royal Orthopædic Hospital—saw me reduce a case and apply the extension instrument. He said that he had been assistant to Lorenz and Hoffa, and did not approve of my plan, extolling the open method. A few weeks after this Dr. Sherman of San Francisco also visited the hospital and held similar opinions to the German gentleman; he also saw the instrument applied. This was about June and in

November or early in December of the same year Lorenz's paper on reposition without cutting appeared. As the occurrence is remarkable it is only natural to inquire whether Lorenz's assistant wrote to him on the matter or told him when he returned. So it will be noticed that I had been practising this method for two years before Lorenz wrote about it, and that, with the difference of his using plaster-of-Paris, he did exactly what I did long before him—i.e., applied a high boot to the sound limb and allowed the patient to get about on crutches. It is also remarkable that his assistant said not a word about Lorenz having used any plan of bloodless reduction. I brought my method before the orthopædic world of this country, but I suppose that I should have written to the medical papers about it, though I am not prone to rush into print before I have given a fair trial to a plan that needs about two years' treatment.

The ambulatory method consists in first reducing, if possible, the femoral head into the deficient acetabulum by the methods of Bigelow and Paci combined, and while the limb is kept in place my extension instrument (see figure) is



The author's extension instrument. 1. Pelvic band. 2. Upper thigh-piece. 3. Lower thigh-piece, with 4, its straps. 5. Leg-band. 6. Ankle with 7, its straps.

applied. This consists of a pelvic band and a double iron, with joints at the hip and knee. The upper thigh-piece, which posteriorly has a good pillow, is pushed well up to the perineum, then the lower thigh-piece is laced to the thigh and so subsequently is the ankle. Extension is first applied from the ankle and its straps are fastened. Further extension is provided for through the thigh-piece. The joint at the hip permits of fixation in abduction if felt to be necessary, and the joint at the knee is provided with a back-stop in order that the joint may be moved a little daily so as to avoid physiological ankylosis. The patient wears a patten, or high-soled boot, on the sound limb and goes about on crutches. At the back of the heel the ankle-piece must be watched so as to prevent excoriation. The patient wears a shoe or slipper and to prevent the toes dropping forward a broad ribbon is passed underneath the front of the foot and attached to the tibial band of the instrument. Occasional readjustment about every two months may be necessary, and the thigh and calf muscles can be massaged during the treatment if the thigh-pieces be loosened, but the ankle extension should not be disturbed without great necessity. I do not profess to succeed in reducing all cases into the rudimentary

acetabulum, but I have contented myself with converting iliac displacements into the anterior dorsal or supra-cotyloid. This considerably diminishes the shortening and lordosis and improves the walk. I have treated a considerable number of cases, some double, but mostly single, in this way and am very satisfied with the results, as also have been the parents. I explain to them frankly what I propose to do and how much I expect to result, and as a rule I can conscientiously say that I have not been seriously disappointed. Some of these cases have been seen by my colleagues who have been good enough to testify to considerable improvement.

I must confess that I am sceptical as to the claims of those who state that by this bloodless method they get perfect results. I could, if necessary, give chapter and verse for three cases which were said to have been reduced. They were put up in plaster and so treated for a considerable time, but when the children began to walk the parents noticed no improvement, and hence I came to see these cases, and in each instance there was anterior dislocation—i.e., the usual form of this deformity. I do not think that it could be claimed for these cases that a posterior displacement had been converted into an anterior, because the latter is by far the more common in my experience, and also because the walk after the treatment was similar to that before it, according to the parents' statement. Therefore, before becoming convinced of the permanence of this method, I should require similar tests to those I have indicated when speaking of the open operation, and though I shall not cease trying to reduce these cases into the rudimentary acetabulum, and to keep the head there if I can, still I shall not expect anyone to believe that I get results any better than those I have pointed out until I can rigidly demonstrate the fact up to and after three years from the reduction of the deformity. If it be thought that I am too exacting, I can only reply that these are the tests which I should set myself, and that I never perform a serious operation without first asking myself whether I would do so on my own child or near relative, and with this operative canon I shall rest content.

At a meeting of the British Orthopædic Society a few years ago I stated that I had thought out a method by which the results of the open operation might be improved. This consisted in drilling a hole through the head and upper part of the neck of the femur and into the hollow of the acetabulum, through which a steel or ivory rod could be placed, but I pointed out that as there was so little bony tissue in the latter place (in fact, that it was mainly cartilage), and as perforation of the pelvis probably could not be avoided the risks might be great, especially if suppuration occurred, and, moreover, that ankylosis would be likely to result. Displacement would most likely take place when the rod was withdrawn and if the head still remained in position this would be due to ankylosis. This, I take it, is the real explanation of most cases in which the head is stated to remain in place after the open operation. Enough, I hope, has been said to show that the results claimed require very careful sifting in the best interests of orthopædic surgery before one is justified in opening—or, to use a German expression, *insulting*—these misplaced, but otherwise very serviceable, joints.

Grosvenor-street, W.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### A CASE OF EXTENSIVE SUBPERIOSTEAL HÆMORRHAGE IN A CHILD THREE WEEKS OLD.

By A. C. INGRAM, M.R.C.S. ENG., L.R.C.P. LOND.,  
HOUSE SURGEON, MILLER HOSPITAL, GREENWICH

ON May 29th a female child just three weeks old was brought to the Miller Hospital, Greenwich, with the history that up to May 25th she had been perfectly well, but from the 25th to the 28th she appeared to be fretful and ailing. On May 28th her right ankle became swollen and

purple in colour "as if it had been severely bruised." On admission the patient was found to be a well-developed child, but had a peculiar yellow, waxy appearance of the skin and looked very ill. The umbilicus had not completely healed, being covered by a scab, the removal of which displayed a granulating surface. On the right ankle there was an extensive subcutaneous hæmorrhage surmounted by a bulla containing sanious fluid. There was a similar hæmorrhage over the right elbow. The whole of the right leg and the lower half of the right thigh were of a dirty yellowish colour and uniformly swollen. This swelling was firm and brawny to the touch, closely resembling the condition of the limbs sometimes found in scurvy rickets. The child died at 10 P.M. on the same evening, the swelling and discolouration having extended up the right thigh and on to the abdominal wall on that side.

At the necropsy, made on the 30th, it was found that the whole of the muscles of the right thigh and leg were infiltrated with sanious fluid. The right tibia and fibula were separated from the periosteum throughout their diaphyses by a collection of similar fluid so that the whole diaphysis of the tibia was pulled out without much difficulty. The lower ends of the right femur and humerus were similarly affected. At the fifth left costo-chondral articulation the rib for a distance of one inch was carious and surrounded by a quantity of thick sanious pus. There was a small hæmorrhage into the liver and another into the left lung. There were minute vegetations on the margins of the cusps of the mitral valve. No thrombosed veins or other evidence of infection could be found in the neighbourhood of the umbilicus.

In conclusion, I have to thank Mr. C. H. Hartt, under whose care the patient was, for permission to publish these notes.

Greenwich, S.E.

#### ANOTHER RAPID CASE OF DIABETES.

By J. B. EMMERSON, M.D. DURH., M.R.C.S. ENG.

ON Nov. 4th a boy, aged 13 years, was brought to me complaining of thirst and weakness. His breath had a chloroform smell and the urine had a specific gravity of 1030 and was full of sugar. His mother said that he had only been ill for a fortnight and he had walked four miles to see me. He was put upon a strict regimen but sank and died on the 9th, five days afterwards. Curiously enough, the lad came from close to Ashwell, from which place Mr. R. E. H. Woodforde reported a case in THE LANCET of Nov. 2nd, p. 1192.

Probably these cases are not uncommon and have been running on for a considerable time unsuspected.

Biggleswade.

#### BRITISH MEDICAL TEMPERANCE ASSOCIATION.—

ON Nov. 15th a meeting was held in the library of the London Hospital (by kind permission of the Visiting Committee) under the auspices of this association. About 80 students were present. Professor G. Sims Woodhead presided. Dr. J. J. Ridge introduced a discussion on the Advantages of Total Abstinence. He advocated it on the ground that it was a more absolute and necessary safeguard against the evils of intemperance than vaccination was against small-pox. He quoted the late Sir Andrew Clark, who had said, "It is when I think of all this [the effects of the abuse of alcohol] that I am disposed ..... to give up my profession, to give up everything, and to go forth upon a holy crusade preaching to all men, Beware of this enemy of the race." He pointed out the physical advantages of total abstinence as regards athletics and examinations, and showed from the results of friendly societies and life offices that abstainers had on the average less disease and longer life. They were all total abstainers from something or other, such as opium; he considered there was greater reason to abstain from alcoholic drink as a beverage. The question of alcohol as a medicine was foreign to the subject. Some objected to take the pledge, but they did not require it as a condition of membership, although he supposed they all looked forward to signing the Hippocratic pledge after passing the conjoint examination. Several students and others took part in the discussion.

# A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORREAU *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

## ST. THOMAS'S HOSPITAL.

A CASE OF CHRONIC INTESTINAL OBSTRUCTION; COLOTOMY;  
SUBSEQUENT CLOSURE OF ARTIFICIAL ANUS; RECOVERY.

(Under the care of Dr. S. J. SHARKEY and  
Mr. W. H. BATTLE.)

THE average duration of life after colotomy for malignant disease of the sigmoid flexure or rectum is probably not more than 18 months,<sup>1</sup> while Maylard<sup>2</sup> considers that the duration is less than a year. In the following case the patient has survived nearly three years, and the obstruction caused by the disease has completely disappeared. These facts would tend of themselves to suggest a doubt as to the diagnosis, but a few cases of the disappearance of a new growth of the lower bowel have previously been reported. It is very desirable that the further history of the case should be followed up.

A man, aged 49 years, was admitted into St. Thomas's Hospital under the care of Dr. Sharkey on Jan. 17th, 1899, with symptoms of intestinal obstruction. He stated that he had been in good health until Jan. 1st when he had pain in the lower abdomen with constipation. Purgatives were given, but there was no effect until an enema had been given by the medical attendant. Since that time there had been continued enlargement of the abdomen, irregular action of the bowels after medicine, and lately some vomiting. On admission the patient was found to be a stoutly built, well-nourished man. He complained of abdominal pain, had a distended abdomen, tympanitic excepting in the flanks, where there was some dulness. He had offensive vomiting and some diarrhoea with passage of mucus. Nothing could be felt per rectum. There was a history of both alcohol and syphilis.

On the following day Mr. Battle was requested to see the man with a view to operation as the obstruction was supposed to be mechanical, probably malignant stricture. An exploratory incision was first made in the middle line below the umbilicus and the point of obstruction was found in the sigmoid flexure. The large intestine above was thickened and much distended. A lump was felt in the bowel which involved the wall of the gut and bound it down to the pelvic brim; some coils of small intestine were adherent to this lump which was quite immovable. Incision was then made in the left inguinal region and the descending colon was brought out. A fishgut suture was passed across the mesocolon from one edge of the wound to the other, close to the bowel and at the junction of the lower one-third with the upper two-thirds. A silk stitch was then passed at both the upper and lower angles of the wound, which passed through and held the bowel in position. The colon was then opened, a Paul's tube being secured in the opening. On the fourth day the tube was removed. There is nothing further to be said about the progress of the case and on Feb. 15th the patient was discharged wearing a colotomy belt.

As there was some uncertainty regarding the nature of the obstruction, it was decided to explore again, with the intention of excising it if possible. The patient was readmitted to hospital on June 3rd, 1899, and a median section was performed through the old scar on the following day. The growth was found to be smaller than at the previous operation, but it was very fixed to the pelvic brim and the intestines were still adherent. The incision was therefore closed and he was advised to put up with the inconvenience of the artificial anus.

The patient was seen at the hospital at frequent intervals and always expressed anxiety to have something done to close the opening in his side, but was told that nothing could

be done. In the early part of this year he came with the information that since Christmas, 1900, fæces had begun to pass by the rectum. When this first happened he had severe pain lasting two hours. Now the fæces passed both ways. He was readmitted on April 17th, 1901. His general health was good and he had put on more flesh, had no pain and considered himself quite well excepting for the artificial anus. He was kept under observation until April 26th, on which date Mr. Battle explored again through the scar in the median line. Exploration was the more readily undertaken as there had developed a hernia in this situation. There were more adhesions present, one coil of bowel was fixed to the posterior aspect of the scar, and the adhesions which were in the neighbourhood of the swelling were so numerous that it was not possible to define its outline or even to say if it retained its former size or shape. This wound was sutured in layers and reinforcing sutures (all of silk) were put in, but the muscles were fatty and would not hold stitches. During the operation the artificial anus was plugged and isolated.

Until May 30th the patient was kept quiet in bed and the spur of the artificial anus was destroyed by means of the pressure of the apparatus devised by Mr. Battle for use in such cases. The artificial anus was situated on the left side between the umbilicus and the anterior superior spine, and occupied the centre of a hernial protrusion which had apparently resulted in consequence of the increasing abdominal pressure from deposit of fat in the omentum; also there had been slight suppuration with the formation of weak scar tissue, and the opening in the muscular wall was larger than was now necessary as the distension of the bowel at the first operation was considerable and it was difficult to get the large bowel through a smaller incision. The bowel opening was plugged with gauze and then the peritoneum was opened, the incision being carried all round on the right side to free the bowel from the peritoneum which was attached to scar tissue. The margin of this was cut away to show the layers of the wall. On the outer side it was not necessary to open the peritoneum. All scar tissue was cut from the surface of the bowel excepting for a ridge immediately surrounding the opening, and this formed a strong line for the insertion of a row of continuous silk sutures. A second row of sutures (interrupted, Lembert's method) was then placed and the opening was washed with warm saline solution and the external wound was closed as well as possible with silk sutures. The muscles were very degenerate and would not hold any stitches when marked traction was put on them to bring the edges of the wound closely together.

Rectal feeding was employed for four days. The wound was dressed on the eighth day and some of the stitches were removed. There was a slight amount of suppuration. On the fourteenth day the bowels were opened by enema and on the seventeenth by aperient. On the fortieth day the patient was discharged wearing an abdominal belt, and both of the wounds were almost healed. There had been no escape of fæcal matter from the wound. The bowels acted well and regularly. He has resumed his ordinary work and is fat and well. This patient was shown at the Medical Society of London on Nov. 11th.

*Remarks by Mr. BATTLE.*—The opinion formed at the first on this patient's case was that he had a stricture of the large bowel due to malignant growth (cylindroma). At the operation a lump was found, but it was not possible to satisfy myself that it was malignant, more especially as the small intestine was adherent to it, a rare occurrence in malignant cases. The question of malignancy is not yet decided, for the malignant growth most frequently met with in the bowel is not of a very malignant type and, provided that the obstruction which it causes is relieved, then the patient may live for many years. The fat, well-nourished appearance of this man does not suggest malignant disease, especially as he has a good colour and continues to put on weight, but I would not lay too much stress on this point. The spur of the artificial anus was acting well, so that it remains somewhat of a puzzle to understand by what route the fæces reached the rectum. It is possible that the stricture gave after the long rest, but the result of the operation which presumably causes the fæces to pass again over it, continues good, and I have no knowledge of such improvement in similar cases; or perhaps there is some anastomosis established between the bowel above and below. With the history of syphilis it is

<sup>1</sup> Jacobsen: *Operations of Surgery*, third edition, p. 1085.

<sup>2</sup> The Surgery of the Alimentary Canal, p. 472.

possible there is a gummatous infiltration of the wall of the bowel. I have found the T-shaped apparatus for removal of the spur more successful than any other method. The application of forceps causes much pain to the patient, is slow in progress, and is followed by much thickening of the tissues about the spur, and the part divided by the forceps cicatrises and contracts, so that but little good is effected. The use of tubing, as recommended by Sir William M. Banks, is useful in some cases, but there is more disturbance caused by the introduction of the tubing of required size; it is more difficult to keep in place and is more readily blocked by faeces. The slim arm of the T causes no obstruction, its introduction is easy, and pressure on the long arm is easily regulated by the bandage which encircles the patient and holds the dressing in position. It is cheap and can be made by anyone out of a piece of firewood, some silk, and rubber tubing of small size.

## WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

### THREE CASES OF BASAL DRAINAGE OF THE ARACHNOID FOR THE RELIEF OF INTRACRANIAL PRESSURE.

(Under the care of Dr. E. DEANESLY.)

THE probable cause of the accumulation of cerebro-spinal fluid in the ventricles is blocking of the foramen of Magendie in the roof of the fourth ventricle. This foramen may be obstructed by the effusion of lymph, as in tuberculous meningitis, or by pressure from a tumour or abscess of the cerebellum. The method of removal of this excess of fluid by the introduction of a curved probe under the cerebellum was well described by Dr. A. Parkin in THE LANCET<sup>1</sup> in 1893. The figure there given renders the operation clear.

CASE 1.—A boy, aged 14 years, was admitted into the Wolverhampton and Staffordshire General Hospital, under the care of Dr. J. A. Codd, on March 9th, 1900, complaining of severe headache. He had measles two years previously and afterwards had a slight discharge of matter from both ears. This left him a little deaf on the right side. About the beginning of February, 1900, he was taken ill with pain in the head and back of the neck. He was ill at home for five weeks with pain and sickness and was treated for influenza. On March 9th he was seen by Dr. Codd who found intense double optic neuritis. Vision, however, was not noticeably impaired; there was no ataxia, ocular palsy, or any focal symptom. There was still a little purulent discharge in the left meatus. He was admitted and treated with large doses of potassium iodide. The headache improved and the vomiting, which had never been frequent or typically "cerebral," ceased. He was sent home and attended as an out-patient. The headache reappeared as badly as ever and on May 31st he was readmitted to the surgical ward. He was a bright, intelligent lad with rather prominent eyes. The optic neuritis was still intense, but there were no localising symptoms of any kind and the pulse was not abnormally slow. Beyond a small perforation in the left Shrapnel's membrane there was no sign of old or recent otitis. He was, however, slightly deaf in the right ear. In the absence of localising symptoms a provisional diagnosis of cerebellar tumour was made and it was decided to trephine the posterior fossa in order to examine the cerebellum, to relieve the intracranial tension, and to prevent the danger of optic atrophy and blindness. The possibility of cerebellar abscess from otitis, although this appeared very improbable, together with the complete absence of localising symptoms, led to the selection of the left side for trephining because the traces of past otitis seemed more evident on that side. A curved flap was turned down and a three-quarter inch trephine opening was made a little to the left of the middle line immediately below the lateral sinus. On incising the dura mater the cerebellum bulged through and pulsated very faintly. No sign of abscess or tumour was detected. A curved director was passed beneath the cerebellum in the direction of the fourth ventricle for over an inch but no fluid escaped. Two silk drains were then passed some distance beneath the cerebellum and brought out one at each angle of the scalp wound, which was closed without replacing the bone or suturing the dura mater. Headache was at once relieved by the operation.

A little serous discharge escaped from one angle of the wound when dressed on the eighth day. The following day both drains were removed and the wound had healed. On the twelfth day the patient got up but vomited on returning to bed. On that date the neuritis was already observed to be less. 22 days after the operation it had almost cleared up, but the upper inner quadrants were still indistinct. He returned home four weeks after the operation. Headache soon returned but now in severe paroxysms, not continuously as before. The slight bulging through the trephine opening present when he was discharged increased till it projected nearly an inch above the general surface of the scalp. This swelling was partly reducible and felt like fluid. The paroxysms of headache were relieved by anti-pyrim and gradually ceased. Four months after the operation the swelling had almost gone and the lad returned to work as an errand boy. On Dec. 12th, 1900, the boy was examined again. There was then no sign of past neuritis in either eye and no atrophy, but he thought that sight was not quite so good as formerly. He was well and free from symptoms. The swelling over the trephine opening was variable: at this date it was about one and a half inches in diameter and about three-quarters of an inch high. At present (September, 1901) he continues well and at work.

CASE 2.—A man, aged 30 years, was admitted to hospital on April 16th, 1901. He had suffered for the past nine months from pains in the head and partial deafness in the left ear. There was a possible history of syphilis three or four years before, and he had been treated for his headache with mercury and iodide without any effect. On admission he was a strongly built man of healthy appearance. His head was somewhat large, with prominent, overhanging forehead. The pain in the head was chiefly frontal, worse on the left side. It was made worse by use of the eyes, and he complained that his sight was somewhat indistinct. There was marked nystagmus of both eyes on looking either to the right or the left, but no squint, ocular or pupillary paralysis, or inequality of pupils. There were intense double optic neuritis and swelling of the discs. Both tympanic membranes were normal, but there was distinct impairment of hearing on the left side, apparently nervous or labyrinthine in origin. He complained of numbness of the right side of the cheek over an area which was marked out and found to include the greater part of the cheek, on the right side together with the whole of the upper lip and the upper half of the lower lip on both sides, so that a complete zone encircled the mouth. This area was found to be partially insensitive to touch, and the anaesthesia affected the corresponding areas of mucous membrane within the mouth. He complained of some difficulty of articulation, but his speech was not noticeably indistinct. There was no paralysis of the face, jaws, tongue, pharynx, or larynx. He was able to stand still with the eyes closed, but on walking staggered first to one side and then to the other. He had also subjective feelings of giddiness, but was not intelligent enough to give a clear account of his sensations. There was marked incoördination of both hands, the finger being placed several inches wide of the nose when seeking the latter with the eyes closed. Both knee-jerks were much exaggerated, but no ankle clonus was obtained. The urine was normal, as were the thoracic and abdominal viscera. The pulse was not abnormally slow. The temperature varied between 97° and 98.4°F. It was clear that there was increased intracranial tension and that the morbid process involved cranial nerves on both sides of the brain at the base. Tumour of the cerebellum involving the middle lobe and encroaching on the pons seemed to be the most probable diagnosis.

At the operation the posterior fossa was opened with a one-inch trephine on the right side. Haemorrhage from the veins was profuse and difficult to check. After incising the dura mater the cerebellum bulged into the aperture without pulsation. There was no sign of tumour visible. The bony opening was enlarged as much as possible in all directions in order to relieve tension permanently. A curved blunt elevator was passed inwards beneath the cerebellum towards the fourth ventricle but no fluid was reached. A silk drain was inserted in the same position and the wound was closed. The dura mater was not sutured. On the same evening the temperature rose to 99°, the pulse to 96, and the respirations to 24. The following day he vomited persistently. The speech (articulation) was very indistinct and slow, like that of bulbar paralysis. There was, however, no weakness or deviation of the tongue. The silk drain was removed on the second day, but on the day after there was a profuse discharge of

<sup>1</sup> THE LANCET, July 1st, 1893, p. 21.

cerebro-spinal fluid from the wound which continued for four weeks, at first sufficient to soak through the dressings and to saturate the pillow-case, afterwards diminishing, and finally ceasing. The wound was healed and the scalp sutures were removed at the end of a week, but the cerebro-spinal fluid continued to drain from a small sinus left by the silk. This finally closed on May 31st. On the tenth day the temperature rose from its previous level of from 97° to 99° to 103° and then gradually subsided to its normal course. This corresponded to a temporary partial cessation of flow of cerebro-spinal fluid and the fall of temperature was accompanied by a resumed profuse flow. The patient was at once relieved of headache and of the numbness of the face by the operation, but in other respects his condition was distinctly worse. His speech was slow and indistinct, and he was for a long time so weak in the trunk and limbs that he was unable to sit up in bed or to feed himself without assistance. This condition slowly improved. Seven weeks after the operation he was able to stand with a little help and he was allowed to go home. The optic neuritis at this time had entirely subsided. At the time of writing (four months after the operation) he is in good general health and free from pain. His speech is slow, jerky, and indistinct, but less so than it was. His sight is rather dim, but the nystagmus has disappeared. He is able to stand while holding a table and thinks he is getting stronger. He walks when supported with an extremely spastic gait, lifting the feet very high at each step. The knee-jerks are still most exaggerated. There is no sign of bulging over the trephine opening, only the usual pulsation.

CASE 3.—A lad, aged 18 years, was admitted to hospital on June 26th, 1901. For some five months before this his parents had noticed that his gait was peculiar and that he sometimes complained of headache and giddiness. He had not, however, had any severe illness or had he to absent himself from his work. On June 14th at 5.45 P.M. he was suddenly seized with acute pain in the head. He left his work, went home, and vomited. On the next day the pain continued and he vomited again. He was then seen by a medical man who found him in bed with a temperature of 102.4° F., marked retraction of the head, stiffness of the neck, and a pulse which was slow in proportion to the temperature. There was much photophobia and the bowels were constive. Other signs were negative. He remained for 10 days in much the same condition, the pain being unrelieved by purgation, ice-caps, and leeches. On admission he was curled up in bed, lying indifferently on either side. He was quite conscious and intelligent, as he had been throughout. The pain was continuous, with paroxysmal exacerbations; it began in the occipital region and worked round to the left mastoid region. There was no sign of otitis, present or past, on either side. The temperature was 102.6° and the pulse was 60. The head was retracted and very stiff. He was held in sitting posture with difficulty in order to examine the eyes. Marked double optic neuritis was found, but no tubercles were seen in the choroid. There was no squint, inequality of pupils, or ocular paralysis, but marked photophobia was present. The cranial nerves were unaffected. There had been no local spasms or general convulsions. Both knee-jerks were exaggerated, but there was no loss of power in either limb. The thoracic and abdominal viscera appeared to be normal. The urine contained no albumin. The red blood corpuscles and hæmoglobin were normal; the leucocytes numbered 18,400.

On the day after admission the left occipital bone was exposed below the lateral sinus as close to the middle line as possible and an opening into the posterior fossa made with a gouge and afterwards enlarged with forceps to the diameter of half an inch. The dura mater was incised and a curved elevator was passed beneath the cerebellum into the fourth ventricle. There was a gush of about an ounce of clear fluid and the cerebellum, which was previously protruded and motionless, immediately sank within the skull and pulsated normally. The pulse momentarily slowed down, but soon rose again to 72. Respiration was unaffected. A drain of silkworm-gut strands was passed into the arachnoid space for about an inch and brought out at one angle of the wound, which was otherwise completely closed. Two and a half hours later the boy was free from headache but the head was still retracted. Convalescence was rapid, but the temperature varied daily between 98° and 104° F. for four days and did not reach the normal level till the ninth day. It then continued normal.

The pulse frequency remained subnormal for over a fortnight, but the other symptoms gradually subsided. The wound healed by primary union and the drain was removed at the end of a week. No fluid appeared to have drained by it after the first 24 hours. The optic neuritis subsided slowly. A month after the operation the discs were still swollen and indistinct; a fortnight later they had somewhat improved. The lad got up at the end of three weeks and returned home a few days later. When last seen, a month later, he was apparently in good health and free from all signs of his illness except the scar on his head and the still present but subsiding optic neuritis. The cerebro-spinal fluid removed at the operation was examined by the Clinical Research Association for the diplococcus intracellularis with negative result.

*Remarks by Dr. DEANESLY.*—The exact nature of the intracranial mischief in the above cases is still uncertain. Possibly the subsequent history may throw more light on that point, although two at least of them appear to be completely restored to health. Whatever differences may have existed in the nature of the primary lesion all three cases agreed in presenting some or all of the signs and symptoms of increased intracranial pressure—viz., severe headache, vomiting, double optic neuritis, slow pulse, and respiration, and few or no localising signs. The operation of basal drainage of the arachnoid introduced by Mr. A. C. Morton and Mr. A. Parkin is admirably adapted for the relief of intracranial pressure in such cases and numerous successful instances of its application have now been recorded both by Mr. A. Parkin and others. In two of the present cases the operation may be claimed to have relieved dangerous symptoms and probably to have averted death. In the other case (Case 2) success in relieving the intolerable headache was qualified by increase of the muscular weakness and of the defect of speech; but the ultimate result cannot yet be predicted.

A comparison of the three cases will perhaps help to elucidate the probable nature of the lesion in each. In Case 1 the operation gave positive evidence of increased intracranial pressure, but no evidence that it was associated with, or produced by, any excess of cerebro-spinal fluid. It is possible, however, that the fourth ventricle was not actually reached by the probe, for the trephine opening was placed over the anterior part of the cerebellar hemisphere, from which position the fourth ventricle, unless greatly distended, is much less easy to reach than when the trephine opening is near the median line. Nevertheless, the removal of bone and section of the dura mater sufficed to bring about a gradual cessation of the symptoms, and it is not improbable that the case was really one of chronic internal hydrocephalus dependent on some blocking of the natural channels by which the cerebro-spinal fluid is distributed or reabsorbed. On the other hand, such obstruction may have been due to a small basal tumour pressing on the veins of Galen, which may have become quiescent since the operation. I have indeed seen a case in which a small tuberculous tumour in that position with hardly any localising symptoms became quiescent under medical treatment for two years. Symptoms then recurred, the child died, and the previous diagnosis was verified at the necropsy.

In the second case, as in the first, attention at the operation was primarily directed to the cerebellum, and the trephine opening was nearer to the side of the cerebellum than to the posterior middle line. Perhaps it was for this reason that, although great increase of intracranial pressure was verified, no fluid was struck on passing a director beneath the cerebellum. It is probable that the fourth ventricle was not reached, for on the third day a profuse flow of cerebro-spinal fluid appeared suddenly and continued for four weeks.

In other respects this case presents striking points of resemblance to a case of hydrocephalus cured by opening the fourth ventricle and reported in THE LANCET of Nov. 2nd, 1895 (p. 1106), by Mr. Thelwall Thomas of Liverpool. This case was that of a young man, aged 18 years, with a large head, who had had attacks of severe headache with giddiness for 18 months. He had double optic neuritis, nystagmus, deafness without middle-ear disease, a staggering gait, and incoördination of the hands; later he developed paralysis of the fourth nerve. The temperature was subnormal. In all these points the case closely resembled Case 2. At the operation, as in Mr. Thomas's case, the venous hæmorrhage was very profuse. The results of the operation in Mr. Thomas's case were much more satisfactory

than in my own, for at the end of nine weeks recovery was practically complete, whereas in Case 2, although still slowly improving, there are still great defect of articulation and a pronounced spastic gait. In this case there is no doubt that the difficulty of speech and the general muscular weakness were in some way immediately and greatly increased by the operation, possibly by direct injury of the pons and pyramidal tracts, although it is difficult to imagine how an injury to the bulb or pons could have been limited to the centres or tracts affected. In spite of the points of resemblance to Mr. Thomas's case it is possible that the internal hydrocephalus is secondary to tumour and that the relief given by the operation will not be permanent.

Case 3 is in some respects the most satisfactory. Whatever the cause of the morbid condition it was, both in its onset and course, acute. Clinically it resembled a case of acute meningitis, either simple or tuberculous. Examination of the fluid removed failed to confirm either of these diagnoses, but too much stress must not be laid on a negative report. At any rate, clinically the case was not only acute and severe, as shown by the symptoms and the high temperature, but it was watched for 10 days without any sign of amelioration. Although cases of recovery from such symptoms and even from undoubted meningitis are not unknown I think that in the present case recovery was at least improbable without operation. The effects of the operation were certainly striking. Relief was immediate, convalescence was rapid, and recovery was apparently complete.

I have to thank Mr. H. D. O'Sullivan and Dr. S. Southall, house surgeons to the hospital, for notes of the cases, and Mr. W. S. Robinson for the accurate history of Case 3 before admission to the hospital.

## Medical Societies.

### PATHOLOGICAL SOCIETY OF LONDON.

*The Relation of Danysz's Bacillus to Gaertner's Bacillus.—The Immunisation of Cattle against Bacillus Tuberculosis.—A Case of Infection of Bacillus Coli Communis with Endocarditis.—A Case of Gangrene of the Nose associated with Bacillus Pyocyaneus.—A New Centrifuge for Bacteriological Work.*

A MEETING of this society was held on Nov. 19th, Mr. WATSON CHEYNE, the President, being in the chair.

Dr. E. E. KLEIN, in a communication on the Relation of Danysz's Bacillus to Gaertner's Bacillus, drew attention to the difficulties and insufficiency of the methods in use for differentiating the various species of microbes belonging to the group of coli bacilli. He illustrated this by comparing two such species which from their widely-separated derivation could hardly be considered the same—viz., the Danysz rat bacillus and the Gaertner bacillus enteritidis. In morphological and cultural respects both these species belonged to the coli group, and while they differed from the typical bacillus coli communis in some points they showed great similarity in precisely the same points; further, in respect of pathogenicity on rodents they had much in common. Moreover, an animal (guinea-pig) protected against one microbe appeared to be likewise protected against the other microbe, and finally the blood of an animal (guinea-pig) protected against one, agglutinated an emulsion not only of this but also of the other microbe.—Professor J. McFADYEAN asked why Dr. Klein hesitated to regard these organisms as being identical, as the only difference was one of situation.—Mr. A. G. R. FOULERTON said that he saw no reason why the Gaertner bacillus and the bacillus above described should not be identical.

Professor McFADYEAN brought before the society the results of some experiments in which an attempt had been made to immunise animals of the Bovine Species against Tuberculosis. To this end cattle were infected with intravenous injections of virulent tubercle bacilli and after an interval tested with tuberculin. It was pretty confidently expected that the ultimate and not very long deferred result of such experiments would be the death of the animals from tuberculosis, and when very large doses of virulent bacillus were used this was what actually happened. In some instances, however, the experimental animals never developed any decided symptoms of infection and gradually

ceased to react to tuberculin. This, of course, might have been the result of a different degree of natural immunity or it might have been brought about by a curative property of tuberculin. The experiments showed that cattle might possess or might have conferred on them a very high degree of immunity against tuberculosis. Professor McFADYEAN gave the details of the experiments and then discussed the question whether the results could reasonably be attributed to a high natural immunity against tuberculosis. He said that the question might be asked, Were the results attributable to a high natural immunity of the experimental animals or to an immunising effect of the treatment to which they were subjected? Putting aside the evidence afforded by the control experiments with cattle it scarcely seemed open to doubt that the immunity was now far higher than it was originally. The degree of natural immunity against tuberculosis possessed by cattle varied a good deal from individual to individual, and probably it was sometimes so strong that it would enable an animal to resist inoculation with a moderate number of virulent bacilli; but nothing that was known made it at all likely that any bovine animal was naturally so immune that it could resist inoculation with the colossal numbers of virulent bacilli that were used in some of these experiments, and even if it were held that some individuals of that kind did exist it was not reasonable to suppose that four animals selected at random for the experiment all possessed this very high degree of natural immunity. Assuming, therefore, that these cattle had actually been immunised against tubercle bacilli the next question to present itself was, What was the mechanism by which the immunity was brought about? Was it the tuberculin or the interaction between the bacilli and the animal cells? In Cases 1 and 2 the first intravenous inoculation was made with a very large number of virulent mammalian bacilli—such a number as would almost certainly have caused the death of any ordinary animal, and yet no serious effect was produced. But both these animals had been previously treated with tuberculin and both were the subjects of naturally contracted tuberculosis before the treatment was begun. Probably in these cases the immunity which the animal had acquired at the time of the first inoculation was due to their previous reactions to tuberculin, and since then it had been greatly strengthened by the later intravenous injections. It was therefore probable that the interaction between the bacilli and the animal cells, aided by the tuberculin injections, gave them a higher power of resistance than they originally possessed.—The PRESIDENT said that there was no evidence to show that any immunity could be produced in the human subject by tuberculin. He had always regarded the action of tuberculin on man as a purely inflammatory effect.—Professor McFADYEAN, in reply to a question whether he had obtained the same immunity with mallein, said that the natural process of recovery from glanders was common in horses which were well kept. Horses treated with large doses of mallein undoubtedly withstood large doses of glanders.

Dr. F. W. ANDREWES communicated a case of Malignant Endocarditis due to Bacillus Coli Communis. He exhibited a heart, sections of the vegetations, and a number of bacterial cultures from the case. The patient was a boy, aged 12 years. The total duration of his illness was four months, during the last two of which he was under observation in St. Bartholomew's Hospital. The onset of his illness was insidious and there was no evidence as to the primary channel of infection. The symptoms were typical of malignant endocarditis and included a mitral systolic murmur, severe remittent and intermittent fever, an enlarged spleen, and embolism of the brachial and other arteries. There was a leucocytosis of 29,000 a short time before death. At the necropsy the heart, which weighed only nine ounces, showed fatty degeneration and a curious endocarditis of the mitral valve which presented numerous firm rounded vegetations of pale yellow colour and of the consistency of herrings' roe. Emboli were present in the brachial and femoral arteries and a large suppurating infarct in the spleen had caused a localised perisplenic abscess. The cardiac vegetations and spleen showed large numbers of a bacillus resembling bacillus coli communis which was easily isolated in almost pure culture from both sources. In the vegetations the bacilli formed a strange mycelial brushwork at the periphery, chains of organisms being densely set at right angles with the free surface. The bacillus was feebly motile and was manifestly a variety of bacillus coli communis. It did not stain by Gram's method;

it grew on gelatin like that organism, without liquefaction; it formed a brownish layer on potato; it produced abundant gas in glucose gelatin shake cultures and vigorously reduced neutral red. Milk was not clotted till the fourth day and no indol formation was observed. Strangely enough no pathogenic effects could be produced on animals by inoculation with recent cultures. The case was a pathological rarity, though not unique, as a few similar cases had been recorded.—Mr. W. C. C. PAKES asked whether the same organisms were present in the emboli as had been found in the valves of the heart.—Mr. S. G. SHATTOCK asked if the primary lesion had been carefully searched for and especially whether the appendix had been carefully examined.—Dr. W. BULLOCH asked how long after death the necropsy had been performed and suggested that it might be post-mortem infection.—Professor MCFADYEAN compared the condition to that found in pigs in which endocarditis developed in swine fever. In these cases, when the pigs came under observation, no lesion could be found in the intestine, though there was little doubt that that was the origin of infection.—Dr. ANDREWES, in reply, said he thought that the lymph on the outer side of the bacilli in the valves of the heart proved that the condition could not have been a post-mortem infection.

Dr. DAVID NABARRO read a paper on a case of Gangrene of the Nose associated with the *Bacillus Pyocyaneus*. The patient was a boy, aged three and a half years. His mother had noticed swelling of the alae nasi and on the following day the inflammation had spread up the nose. Two days later the tip had ulcerated away. On admission to the hospital two days later the child's general condition was bad. Locally there was a black slough, of about the size of a shilling, affecting the septum nasi, the upper part of the lip, and both nostrils. Mr. F. C. Abbott dissected away the slough and the surrounding inflammatory area. The child recovered well and the nose rapidly healed. The examination of the tissue removed showed on longitudinal section a necrotic part in the centre with a slough on the surface and a part of the cartilage of the alae nasi in the interior, separated by a groove of the living tissue on either side. Sections stained for micro-organisms showed many streptococci stained by the Gram-eosin method. A few were apparently capsulated and lancet-shaped, suggestive of the pneumococcus of Fraenkel. The cocci were limited to the edge of the slough and to the area round the nasal cartilage. In sections stained by methylene blue many more organisms were present than in the Gram sections, the increase being due entirely to the presence of a large number of bacilli, some long and slender, others short and thick, scattered about in groups throughout a large part of the necrotic area. On bacteriological examination streptococci and the bacillus pyocyaneus were proved to be present. It was difficult to decide which was the actual cause of the gangrene, but for several reasons Dr. Nabarro was inclined to think that the bacillus pyocyaneus had played the most important part in the production of the gangrene. He arrived at this conclusion for the following reasons: in the first place, the inoculation into the guinea-pig showed that the bacillus was possessed of a high degree of virulence and had produced such potent poisons that the animal died in 12 hours; secondly, the cocci were most abundant along the edge of the gangrenous area, whereas the whole of the necrosed tissue was pervaded with the bacillus; and thirdly, infection with streptococci was not at all uncommon, but a condition of rapid death of tissue such as was seen in this patient was unusual and might be presumed to be due to an unusual cause, and infection with bacillus pyocyaneus would be such an unusual cause. It was possible that the origin of the condition was twofold, the streptococci causing the rapid spread of the inflammatory process, whilst the rapid necrosis and sloughing were due to the action of the powerful toxins elaborated by the bacillus pyocyaneus.—Mr. PAKES doubted whether the fact that the bacillus pyocyaneus could not be recovered from the heart's blood of the guinea-pig experimentally killed proved that the condition was a toxæmia and not a septicæmia.—Dr. BULLOCH stated that it was most difficult to find the bacillus pyocyaneus in animals which had been killed by an injection of this bacillus and he was of the opinion that such a negative result did not prove that the condition was a toxæmic one.

Dr. J. W. H. EYRE showed a new Centrifuge for Bacteriological Work.

## HUNTERIAN SOCIETY.

### *Exhibition of Cases.*

A CLINICAL meeting of this society was held on Oct. 23rd. Dr. DUNDAS GRANT, the President, being in the chair.

Dr. F. J. SMITH showed a case of Congenital Pulmonary Systolic Bruit. The patient was a man, aged 38 years, who from babyhood upwards was known to have had something wrong with his heart. On examination he presented no, or very little, cyanosis, but his fingers were very clubbed. There was a typical rough, loud systolic bruit to be heard over the pulmonary area conducted upwards; there were also very evident signs of tubercle of the lungs with bacilli in the sputum. Dr. Smith remarked that the diagnosis scarcely admitted of doubt and only drew attention to the comparatively late period at which the tuberculosis had supervened.

Dr. SMITH also showed a case of Enlarged Glands of the Neck. The patient was a man, aged 50 years, who for the last four years had noticed that the glands of his neck were gradually getting larger and larger, and that he himself was getting weaker and weaker. He had no specific complaint of pain or local illness to make, but simply of malaise and weakness. On examination it was found that the glands in both cervical triangles in both axillæ and on the front of the chest were much increased in evidence—i.e., much larger, harder, and apparently increased in number; those of the groin were quite natural. The individual glands could easily be felt; there was no periadenitis with matting of the structures. His other organs were found to be perfectly normal so far as physical examination could show, and the urine was quite natural. The blood showed under the microscope no pathological changes, but there was a reduction in hæmoglobin percentage, the change of simple anæmia. Dr. Smith, in discussing the diagnosis, excluded (1) leucocythæmia, by the quality of the blood; (2) Hodgkin's disease, by the fact that neither liver nor spleen was to be felt; (3) malignant deposits of a secondary type or sarcoma of glands, by the duration of the case; (4) tuberculosis, by the isolation and non-breaking down of the glands; and finally decided that it was a case of simple hypertrophy, and drew attention to the distribution of the affection, it being confined entirely to the glands above the diaphragm. Dr. Smith had had a gland removed and was waiting for a microscopical report.

Dr. SMITH also showed a case of Multiple Attacks of Ascites. The patient was a man, aged 29 years, with the following history. He was healthy enough till he was about six years of age, when he had an attack of stomach trouble in which, as far as could be ascertained, the abdomen swelled in precisely the same way as during the later attacks. He was put to bed for a few weeks and then he recovered. He remained well for some three or four years when he was again attacked by a similar illness; he again recovered in a few weeks, and the attacks and recoveries, each about six or eight in number, had been repeated pretty regularly every few years down to 1901. His recoveries had been so complete that he had done a lot of hard exercise, being particularly fond of rowing. In the spring of 1901 he began with his present attack, but as it did not disappear within about the customary period he applied for hospital treatment and was admitted under Dr. Smith's care. On admission his thoracic organs were found to be apparently perfectly healthy, as was also his nervous system. The abdomen was noted to be very large, and examination showed that this was due to ascites, and fluid was present to such an extent that no precise examination of individual organs was possible; the legs were slightly oedematous, but the urine was perfectly natural in quantity and quality. An exploratory laparotomy was advised and consented to, but owing to various circumstances there was a delay of some weeks and by the time there was a chance of having it done the condition was found to be improving so much that he was discharged without anything being done and apparently nearly restored to health. When exhibited (some six weeks after discharge) the patient was seen to be a particularly healthy man. The abdomen showed that there was still some fluid, but it could be so far explored as to show that neither liver nor spleen was enlarged and that there were no lumps to be felt anywhere, though there was a general doughy feeling about the abdomen; the veins of the parietes were not visibly enlarged, but the skin over them was a little oedematous, as were also the legs.

In speaking of the diagnosis Dr. Smith said that he had never seen a case at all similar, as he knew of no cause for ascites which could give the curious relapses here presented; but, taking all things into consideration, he was inclined to believe that the case was probably at bottom of a tuberculous nature, either tuberculous peritonitis or old tuberculous glands causing some relapsing obstruction. He regretted the absence of a specimen of the fluid, as he thought that it might possibly be of a chylous nature. Should the patient have another definite attack he should advise laparotomy at once with a view of clearing up the diagnosis and probably curing the patient.

Dr. J. H. SEQUEIRA showed an unusual case of Rodent Ulcer in a woman, aged 52 years. The disease began 12 years ago with the formation of a small nodule on the left cheek near the lower eyelid. Ulceration followed and spread over the upper part of the cheek and on to the forehead and scalp. Later the root of the nose was involved and the disease spread to the right side of the forehead and the upper part of the right cheek. The contents of the left orbit had almost entirely disappeared and the inner canthus of the right eye was now involved. The interest of the case lay in the large area affected, the superficial character of the lesion in its greater part, and the fact that quite two-thirds of the parts involved had undergone spontaneous healing, leaving a fine white scar. The left side of the forehead and the root of the nose were still ulcerated, but were rapidly improving under the x rays. The margin everywhere showed the raised beaded edge characteristic of rodent ulcer. In many respects the case resembled one figured by Dr. Radcliffe Crocker in his Atlas (Plate lxxvi., Fig. 3).

Dr. DAVID ROSS showed (1) some Milky Ascitic Fluid taken from a patient who had since died from cancer of the pancreas; and (2) a patient who had been operated upon for Myeloid Sarcoma of the Fibula.

Dr. SEQUEIRA, Dr. T. GLOVER LYON, Dr. R. HINGSTON FOX, Dr. DAVID ROSS, Mr. J. H. TARGETT, and the PRESIDENT discussed the cases.

## LIVERPOOL MEDICAL INSTITUTION.

*A New Lamp for Use in the Treatment of Lupus.—Malarial Poisoning.—External Pharyngo-oesophagotomy in Traumatic Stricture in the Upper End of the Oesophagus.—Myiasis.*

THE second ordinary meeting of the session was held on Nov. 7th, Mr. EDGAR A. BROWNE, the President, being in the chair.

Dr. G. STOPFORD TAYLOR showed a new Lamp for the Treatment of Lupus, diagrams of which have already appeared in THE LANCET. After entering into an explanation of its construction and management he said that success was only to be obtained by practice.—Dr. LESLIE ROBERTS said that he was using Dr. John Hunter's arc lamp in the treatment of lupus. If the new lamp was theoretically as active as the original Finsen apparatus he thought that it would not be long before it would become obsolete. His experience was too recent to speak as to results, but he desired to warn members against being too optimistic. In properly selected cases he had seen the light treatment give wonderful cosmetic results, but the cure was slow and tedious. He thought that they should not rely solely on any one measure in the treatment of lupus. There were many cases in which it would be better to begin with the cautery and to complete the case with the arc lamp. Time alone could fix the real worth of the lamp treatment.—Dr. A. S. F. GRÜNBAUM described Bang's new lamp which he had seen working at Hamburg. Its chief features were great portability and cheapness. It had cooled iron electrodes which gave many more ultra-violet rays than carbon.—Dr. TAYLOR replied that the idea of metal carbons was impracticable because the intense heat of the "arc" would convert them into a liquid state. He had not yet met with a case of lupus to which he had not been able to apply the lamp satisfactorily.

Mr. R. W. MURRAY related a Complicated Case of Malarial Poisoning. The patient, a man, aged 20 years, contracted malaria two and a half years ago during a voyage up the Amazon. He was treated in a New York hospital on account of high fever and blood in the urine, and during his stay of

10 months in this hospital he had had the right kidney, the vermiform appendix, and the general peritoneal cavity explored, and the bladder drained from the perineum. He returned to Liverpool and remained in good health until August, 1900, when he was admitted to the Northern Hospital suffering from high fever and blood in the urine, from which hospital he was discharged at his own request at the end of five days, although his temperature was 104° F. The urine contained a large quantity of blood, and the malarial parasite was present in the blood. He was readmitted in January, 1901, and had remained in hospital ever since. During this time the temperature had averaged 102°, rarely falling to normal, and occasionally rising to 106°. Repeated examinations of the blood had again failed to reveal the malarial parasite. A cystoscopic examination of the bladder was made and an ulcer was seen close to the right ureter; the bladder was opened and the ulcer was treated with nitrate of silver. The hæmaturia then ceased for some time, but returned later and was accompanied by great abdominal pain, referred to the right side, and with violent attacks of vomiting. As the case could not now be considered one of malaria, in September the right kidney was explored and was found to be apparently healthy. During the last month the patient had improved, though the temperature remained high and there was blood in the urine. Numerous drugs, including tannin, arsenic, iron, and opium, had been tried without any apparent benefit.—Major R. ROSS said that the detailed temperature chart was not that of a case in which malaria was the only cause of the fever. The chart showed a continuous fever. He had no doubt that malarial parasites were present, but he thought that some other cause was producing the long-continued elevation of temperature. The blood in the urine was not due to hæmoglobinuria. The spleen was not enlarged.—Dr. GRÜNBAUM inquired whether a differential blood count had been made and whether the quinine had increased the apparent hæmaturia; hæmoglobinuria might have existed together with the latter.

Mr. W. THELWALL THOMAS showed a patient upon whom he had performed External Pharyngo-oesophagotomy for Traumatic Stricture in the Upper End of the Oesophagus, caused by accidentally swallowing fuming nitric acid. Some months after the accident it was impossible to pass bougies. On exposing the stricture by external incision it was found to be so small as only to admit a fine probe. The cicatricial tissue was divided on a fine probe director. Excision was impossible and transverse suture was not feasible, so suturing was resorted to over an oesophageal tube passed through the mouth, continuous through the mucous membrane, puckering it up over the stricture, while Cushing's suture was employed for the muscular coats of the oesophagus. The patient, a youth aged 17 years, made a good recovery, and now (seven months after operation) he could swallow solid food and a full-sized bougie could be easily passed.—Mr. F. T. PAUL said that traumatic strictures of the oesophagus were uncommon and were rarely so favourably situated for operation as in Mr. Thomas's patient. He recognised the difficulties of a plastic operation owing to the fixation of the tube at this point; but evidently enough had been done to render subsequent complete dilatation an easy matter.

Dr. D. M. HUTTON read a paper on Myiasis, dealing with the not uncommon occurrence of myiasis in this country and the singular paucity of English literature on the subject as compared with that written by continental authors. Myiasis was defined as the accidental parasitism of dipterous larvæ—i.e., maggots of flies—and was classified according to the distribution of the maggots in the gastro-intestinal tract, the skin, in wounds, and in the nose and ear. Five typical cases of intestinal myiasis were related, two occurring in Dr. Hutton's own practice. Speaking of the etiology, the opportunities for invasion by the ingestion of the eggs of flies in uncooked vegetables, tainted meat, &c., were dwelt upon, and the wonderful resisting powers of maggots to toxic agents and unfavourable conditions of life generally were commented upon. Evidence was given that the eggs or larvæ for the most part perished in the alimentary tract and that the reason of their survival in the known cases was as yet unsolved. The remainder of the paper was devoted to the symptoms and treatment of the condition and with the better known cutaneous myiasis—viz., myiasis vulnorum and narium.—Major R. ROSS related some cases of myiasis of wounds which he had seen in India. He thought that the nervous effects so distinctly produced in some of the intestinal cases

were instructive in reference to the similar effect of intestinal worms.—Dr. HUBERT ARMSTRONG mentioned a case of intestinal myiasis due to a maggot about an inch in length (name unknown). A purge failed to reveal any further specimens and there had been practically no symptoms.—Dr. JOHN HAY asked if the symptoms produced were due to mechanical irritation or to toxic absorption of poisons produced by the larvæ in the intestine. In helminthiasis definite blood-changes had been described, showing that there was probably a toxic agent in addition to the mechanical irritation.—Mr. KELLETT SMITH and Dr. B. SUMNER also spoke and Dr. HUTTON replied.

*The Pathological and Microscopical Section.*

The first meeting of the Pathological and Microscopical Section was held at the Institution on Nov. 14th, Dr. J. HILL ABRAM being in the chair.

After the exhibition of a good many interesting specimens the CHAIRMAN opened a discussion upon Some Points in Cardiac Pathology in which Dr. F. R. GLYNN, Dr. W. CARTER, Mr. CATON, Mr. RENDLE, and Professor C. S. SHERRINGTON took part.

Dr. GRÜNBAUM gave a demonstration of the Near Relation of the Anthroid Apes to Man as shown by the Biological Blood Test.

## EDINBURGH OBSTETRICAL SOCIETY.

*Valedictory Address.—The Nature of the Tubercle Blood Mole.—Election of Office-bearers.*

A MEETING of this society was held on Nov. 13th, Dr. R. MILNE MURRAY, the President, being in the chair.

The PRESIDENT gave his Valedictory Address. He first referred in a sympathetic manner to the losses caused by death to the society during the past year. Dr. Apostoli of Paris was specially known by his electrical treatment of fibroids. He believed that his work had suffered from the exaggerated mode of expression in the writings of his students. The great advance in the operative treatment of fibroids through the abdomen had displaced the electrical treatment, but he believed that there was still a sphere for it among those women who would not run the risk of operation. He referred to the loss sustained by the profession in the death of Sir W. O. Priestley who had an Edinburgh association by his assistantship with Sir James Y. Simpson. Amongst others Dr. James Foulis, Dr. J. Connel, Dr. George Elder, and Dr. William Husband, and their work were also commented on. He then directed attention to the teaching of midwifery and gynaecology, and referred to the melancholy fact that the puerperal mortality from septicæmia had not diminished during the past 50 years. The results of private practice fell short of the best hospital practice mainly because there was far too much meddlesome interference with a natural process, and even when interference was indicated it was often carried out with a total disregard of those principles which had been the basis of the triumphs of modern surgery in other departments. The wide persistence of these vices of practice must be due to some radical defect in the teaching of obstetrics in their schools. As the subject was dealt with in all their Scottish, and in most of their English, schools it fell into two sections—midwifery which dealt with the normal function and abnormal manifestations of the reproductive process, and gynaecology which dealt with the diseases and disorders of the reproductive organs. Until comparatively recently the first department absorbed almost all their attention; their knowledge of the diseases of the female reproductive organs was very limited and their diagnosis unsatisfactory, and even more restricted was their power of treating them. During the last quarter of a century great advances in pathological knowledge, and even more so in abdominal surgery, had raised the study of gynaecological diseases to be one of the most important in practical medicine. So much advance had been made that the time placed at their disposal in the curriculum was becoming more and more inadequate for a reasonable consideration of the full scope of their subject. The increasing importance of gynaecology tended either to displace obstetrics from its former position of pre eminent importance or, on the other hand, there was the danger that the pressing claims of scientific and practical obstetrics prevented anything like an adequate consideration of the immense advances which recent

gynaecology had achieved. It seemed necessary, therefore, that some rearrangement of the work which teachers were required to overtake must be made, the subjects of gynaecology and obstetrics being dealt with in different courses. Some teachers, who were specially interested in other departments, considered that far too much time was devoted to the study of obstetrics and that half of the time could be applied to the necessary expansion of the teaching of gynaecology. These teachers considered that it was absurd that what they designated as the limited subject of midwifery should occupy the same length of time as a subject like general medicine or surgery, which was expected to be overtaken in 100 lectures. Most students took two courses in these latter subjects and even then they found that a large part of their working knowledge had to be obtained from text-books; and most teachers, who confined their prelections to the limits of a single course, restricted themselves to an exposition of the principles of their subject as a whole and a detailed account of one or more departments of it. If a young practitioner was possessed of a sound knowledge of the principles which underlay the scientific practice of medicine and surgery and a reasonable knowledge of the details of the diagnosis and treatment of the more common and urgent maladies he was sufficiently equipped for entering on the work of his profession as far as these subjects were concerned. He was not likely to commit any irreparable blunder in dealing with them or one which he could not rectify by the knowledge obtained by the consultation of authorities on the subject. But in the department of obstetrics the case was materially different. The processes of pregnancy, parturition, and the puerperium were in the majority of cases perfectly natural functions and required no interference or management in the strictest sense of the term. But in a very considerable minority of cases the process departed from the normal and became pathological in the highest degree. Thus two lives became suddenly jeopardised and one of them, if immediately saved, was exposed to the risk of permanent damage and depreciation. They might consider for an instant some of the complications which the ordinary obstetrical practitioner might at any moment be called upon to meet, such as hæmorrhage (accidental, unavoidable, post-partum, or occurring during an abortion), eclampsia, transverse and face presentations, impacted breech cases, rupture of the uterus, hydrocephalus, and prolapse of the cord. Conditions such as these could not be managed on general principles and the practitioner must be prepared to treat them by himself and at once. There was seldom time to consult books or to seek the aid of men of more experience or resource. In a case of post-partum hæmorrhage, for instance, there was no time to send for a consultant; the patient might be dead before he arrived unless the flow was stopped. The greater part of the work of general practitioners was concerned with the ailments of women and children, and the greater part of a woman's troubles sprang from, or was concerned with, her organs of reproduction. So the most important part of the equipment of the general practitioner was a sound knowledge of the principles and practice of obstetrics and the elements of gynaecology; his reputation would often be made or marred by his success or failure in this department. In teaching the students these subjects he (the President) would confine the course of midwifery to a careful review of the whole subject of obstetrics and that of the simpler modes of gynaecological diagnosis and the elementary study of the diseases of women, and he would transfer the subject of gynaecology outside this, including pelvic and abdominal surgery, to a special course, on the same lines as diseases of the eye usually were dealt with at present. This rearrangement meant a new chair and more money, but that should be no insuperable obstacle. The systematic course was only one part; not less essential was the practical training which was necessary to enable the student to apply with success the results of his systematic knowledge. Before he could present himself for a degree he must show certificates of having either attended 12 cases of labour on his own account or that he had managed six cases of labour and had attended the practice of a maternity hospital for three months. He did not learn much from the former alternative. He might arrive after the event was completed, and even if present at them all he had not seen any of them conducted by anyone more competent than himself. He had never been shown how to prepare a patient for examination, far less how or when to examine; he had not even been shown how

to wash his hands. The latter alternative of following the practice of a maternity hospital with the management of six cases was the wiser choice. During the visits of the students to the hospital they could be given practical knowledge of the diagnosis of pregnancy and the prognosis of labour so far as that condition depended on the presentation and position of the fœtus and on the character of the pelvis and other maternal conditions. The phenomena of the puerperium and its abnormalities, the uterine involution, and the process of lactation could all be considered. But many students might have attended a whole course in the hospital and have never seen a single case of labour managed within its walls, not one occurring on the day and at the hour of the clinique. Not one in ten had seen the forceps applied, and fewer still had seen any of the other obstetric manipulations or operations. Such a course of clinical midwifery seemed lamentably inadequate. The first necessity in providing a remedy for this state of affairs was a students' residence close to the hospital so that they might be readily summoned whenever a case was in progress. A competent and permanent resident physician should be appointed who would teach the senior students and take full charge of the medical direction of the hospital in the absence of the honorary staff. A junior resident would take supervision of the outdoor cases. Such a scheme might be considered by some as suggested wholly in the interest of the students and that the real purpose of the hospital, the succour of women in labour, was made secondary to this. But experience had shown that everything which tended to improve the teaching efficiency of any hospital tended directly to the benefit of the patients treated there.

Dr. D. BERRY HART then read a paper on the Nature of the Tuberosc Blood Mole (Fleshy Mole; Subchorial Tuberosc Hæmatoma). The clinical features were indicated—viz., amenorrhœa for from two to three months, then a threatened abortion which passed off. The uterus did not grow, however, and the mole was expelled a varying number of months afterwards. The characteristics of the expelled mass were then described and special attention was drawn to the finger-tip processes lying beneath the amniotic surface. The mole, on section, showed the following structures: amnion, chorion, the intervillous spaces, the subchorionic processes filled with organising blood-clot, and a thin layer of serotina. Dr. Hart demonstrated that he had found in the serotinal boundary of the mole thrombosis of the blood-vessels, a condition not previously described. He drew attention to the serotinal septa joining the chorion and serotina, and he finally urged that the engorgement of the maternal circulation distended the spaces, except where they were tacked down by the septa already mentioned. The bulging of the chorion and amnion at these points gave the characteristic subchorial projections. The changes in the fœtus were secondary. (Microscopical specimens demonstrating the various points were shown.)—The paper was discussed by Dr. J. RITCHIE, Professor A. R. SIMPSON, Dr. MILNE MURRAY, Dr. F. W. N. HAULTAIN, and Dr. W. FORDYCE.

The following were elected office-bearers for the ensuing session:—President: Dr. James Ritchie. Vice-Presidents: Senior, Dr. F. W. N. Haultain; Junior, Dr. James Haig Ferguson. Treasurer: Dr. William Craig. Secretaries: Dr. W. Fordyce and Dr. J. Lamond Lackie. Librarian: Dr. F. W. N. Haultain. Editor of Transactions: Dr. J. Lamond Lackie. Members of Council: Professor A. R. Simpson, Dr. J. W. Ballantyne, Dr. G. P. Boddie, Dr. S. Macvie (Chirnside), Dr. R. Milne Murray, Dr. D. Berry Hart, Dr. N. T. Brewis, and Dr. R. C. Buist (Dundee).

#### SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.

—An ordinary meeting of this society was held on Nov. 15th, Mr. Robert Jones (Liverpool) occupying the chair.—Dr. David Walsh showed a girl, aged 14 years, with a Tumour in the Left Flank diagnosed as Hydronephrosis. An x-ray examination of the case appeared to show a small calculus impacted in the ureter near the bladder and also a hydronephrosis shadow.—Mr. R. Clement Lucas suggested that before operation was resorted to the patient should be examined per vaginam under a general anæsthetic.—Mr. Sydney Stephenson exhibited a child, aged 17 months, who was suffering from Acute Miliary Tuberculosis with pulmonary and cerebral manifestations. Double optic papillitis existed and a typical tubercle was present in the choroid coat of the right eye. There was, in addition, a tuberculous ulcer involving the palpebral conjunctiva of one eye. The ulcer

(in scrapings from which tubercle bacilli had been demonstrated) had destroyed a portion of the free edge of the eyelid and was not associated with granulations.—Mr. George Pernet thought that the conjunctival ulceration corresponded to the miliary tuberculous ulcer occurring sometimes about the edges of the lip.—Dr. C. O. Hawthorne remarked that the optic discs were considerably swollen and suggested that the papillitis might possibly be due to a tuberculous intracranial tumour and not to tuberculous meningitis.—Dr. Hawthorne showed a boy, six years of age, with considerable Enlargement of the Lymphatic Glands of the Neck, with a similar but less marked condition of the axillary glands. The blood showed no excess of white corpuscles, but a relative increase of lymphocytes. He considered the case to be one of Hodgkin's disease.—Dr. A. E. Sansom asked whether the spleen was enlarged.—Dr. R. Hutchison suggested that the case was one of tuberculous glands. He doubted whether there was really such an affection as Hodgkin's disease.—Mr. Pernet and Mr. Clement Lucas also discussed the case.—Dr. Hawthorne, in reply, said that the lower end of the spleen could just be felt. He pointed out that the glands were not matted together and that their characteristics were different from those of tuberculous glands.—Dr. G. A. Sutherland and Mr. J. Jackson Clarke showed a child, aged two years, with Marked Shortening of all the Limbs, Six Digits on each Hand, Slight Hare-lip, and Congenital Heart Disease. They suggested that an achondroplastic condition was present.—The case was discussed by Dr. Hutchison, Mr. Pernet, and Dr. G. E. Shuttleworth.—Dr. Sutherland briefly replied.—Dr. Edmund Cautley showed a Heart from a patient, aged 15 years, who died from Pulmonary Regurgitation. The specimen weighed 11 ounces and was "firm and globular." The right ventricle was markedly hypertrophied. The pulmonary valves were much thickened and puckered and on two of them were warty vegetations with apparent loss of substance.—Dr. Theodore Fisher (Clifton) thought that the case was one of infective endocarditis—a view shared by Dr. Sansom.—Dr. Cautley replied.—Mr. W. Gifford Nash (Bedford) showed the Kidneys from two children of the same family whose ages were six months and 10 weeks respectively. The kidneys were the seat of congenital cystic degeneration and the enlargement in each case was noticed shortly after birth.—Dr. Fisher inquired whether it was common for children with congenital cystic kidneys to live weeks or months.—Mr. Nash, in reply, said that there were instances on record of such patients surviving to 20 or 30 years of age.—Mr. J. Howson Ray (Manchester) showed specimens and a sketch illustrating a case of Congenital Umbilical Hernia of the size of a fetal head occurring in the Children's Hospital, Manchester.—Dr. Cautley read a paper on the Etiology and Morbid Anatomy of Tuberculous Meningitis, based upon the post-mortem and clinical records of the last 27 fatal cases under his care. 22 cases occurred in children under five years of age, and only five during the next five years of life. A family predisposition existed in five cases. In two instances only was disease limited to the meninges. In 23 cases the mediastinal glands were caseous, and in four of these the mesenteric glands were also affected. Dr. Cautley summed up his views shortly as follows. Inheritance meant exposure to infection, injury was rarely an exciting or predisposing cause, and the respiratory tract was the great channel of infection; the alimentary tract was rarely primarily infected. Tuberculous milk was rarely, if ever, the source of infection. The prognosis was very hopeless on account of the extent of the tuberculous disease elsewhere.—The paper was discussed by Dr. Sutherland, Dr. Fisher, and Dr. Willmer Phillips.

SOCIETY OF ANÆSTHETISTS.—At the opening meeting of the session of this society held on Nov. 1st Mr. Walter Tyrrell, the President, chose as the subject of his inaugural address, "The Dosage of Anæsthetics considered from a Clinical Standpoint." the dosage of chloroform vapour receiving the chief and most important notice. The President reviewed the more usual methods of administration and severely criticised those methods which had for their object haste. He disapproved entirely of those methods in which large quantities of chloroform were administered suddenly, and emphasised his view that anæsthesia should be gradually induced by the aid of carefully graduated and evenly increasing doses; he admitted that gradual administration

had certain dangers that were peculiar to it, but considered that the evils of rapid induction by overwhelming and suddenly administered doses were more to be dreaded. Mr. Tyrrell considered that the chief dangers to be feared from slow administration were vomiting and syncope, but that these symptoms could be overcome if noticed early by cautiously pressing the anæsthetic. In the opinion of the President vomiting and syncope could only be avoided by a complete control of the vapour used and no one volumetric solution could give that control. The President discussed at some length the practice of Surgeon-Colonel Lawrie who advocated "commencing with a vapour as strong as can be inhaled." He considered this to be a dangerous process and one not suited to the climate of England.—In the discussion that followed Dr. Garner referred to the work of the Hyderabad Commission and gave some interesting details of Dr. Lawrie's methods of procedure. He (Dr. Garner) thought that the teaching of Surgeon-Colonel Lawrie was similar to that of the Society of Anæsthetists. With regard to the struggling of the patient he respectfully differed from the President; he would not push the chloroform when the patient was beginning to vomit or becoming sick. In India the surgeon had to attend to the anæsthetic as well as to the operation.—Dr. J. F. W. Silk said that he had not much to criticise in the President's address. He considered that an inaugural address by a new President was an excellent innovation and one that he hoped would be followed on future occasions. He (Dr. Silk) preferred to begin with a small but increasing dose of the anæsthetic; he did not approve of the plan of commencing with a drachm or half a drachm or of making the strength of the vapour just sufficient for the patient to breathe. In cases of struggling he preferred, unless the breathing was absolutely restricted, to continue the administration, allowing plenty of air. He thought struggling a dangerous period, and the sooner it was got over the better. He did not consider that sickness during administration ought to occur and when it did occur it was due either to idiosyncrasy on the part of the patient or to some miscalculation on the part of the administrator.—Mr. W. E. Burton quoted a case in which a powerful and well-developed man, in a series of six operations, was invariably sick throughout the administration, even when it was conducted by an expert administrator.—Mrs. Dickinson Berry said that sickness was more commonly found in adults than in children and that this pointed to the existence of a neurotic element.—Dr. Dudley W. Buxton thought that children were extremely liable to vomit from fear, particularly in hospitals. He considered that neurotic persons were more liable to vomit than others in consequence of their secreting and swallowing a greater amount of saliva mixed with chloroform. It seemed to him that dosage was a question for the administrator and also for the method. An ignorant man might achieve success with a faulty method because he was careful; ignorance combined with skill did not justify the use of a bad method.—Mr. Walter Edmunds exhibited a Stationary Apparatus for Administering Chloroform Vapour Mixed with Air, the apparatus somewhat resembling Junker's adaptation of the wash-bottle with Richardson's bellows. In Mr. Edmunds's apparatus the supply of air driven through the liquid chloroform was obtained from a gasometer, the gasometer being filled with air at the commencement of the administration, the pressure of the air passing through the fluid being controlled by loading the cylinder of the gasometer with sandbags of various weights. The supply of chloroform was continuous, the strength of the dose being regulated by varying the distance at which the face-piece was held from the patient's face. Mr. Edmunds used paper face-pieces of an inexpensive pattern, so that they could be thrown away as soon as used.—The meeting concluded with a vote of thanks to Mr. Tyrrell for his presidential address.

**NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY.**—A meeting of this society was held on Nov. 14th, Dr. Clifford Beale being in the chair, when the following cases were shown.—Mr. H. S. Elworthy showed an infant, 11 weeks old, who had been recently vaccinated and who was suffering from a rash which had come on a few days after vaccination. The child had been perfectly well since birth with the exception of a mild degree of dyspepsia. The vaccination had been typical and of moderate severity, the scabs being still visible on the arm. A few days after vaccination the mother noticed a rash which came out chiefly upon the arms, the lower parts of the legs, and the face.

The type of eruption was a red infiltrated papule which extended peripherally and in some cases developed a small central vesicle resembling the lesion seen in herpes iris. Itching was a marked feature, but the child's health was entirely unaffected.—Dr. A. Morison showed a woman suffering from a Peculiar Form of Paresis of the Muscles supplied by the Left Ulnar Nerve. The history of the patient was that she had had acute rheumatism at 15 years of age, being left with a slight mitral insufficiency as the result. Six years ago she had had a severe attack of pneumonia and the present paralysis had then developed rapidly, accompanied by a good deal of pain. The paralysis had improved slightly, but the muscles had undergone considerable wasting, those chiefly affected being the inter-ossei, volar muscles, and the adductors and extensors of the wrist. He referred to Dr. Auld's experiments with pneumococcic toxin on rabbits in which a somewhat similar paralysis had been produced in these animals, and gave it as his opinion that the disease was a peripheral neuritis due to pneumococcic toxin.—Dr. A. H. Robinson showed: 1. A man of late middle age with an Inguinal Tumour. The tumour was said to have occurred suddenly with sharp pain on rising quickly out of a chair two months previously. It was as large as a fist, lobular and fluctuating, giving a marked impulse on coughing. When the patient was put in a supine position it could be slowly but almost completely reduced, and when fluctuation was felt for in the abdomen a slow wave could be felt passing from the groin up to the psoas muscle. He thought that the tumour was a psoas abscess, though he could find no definite evidence of tuberculosis of the spine. (The other members present agreed with the diagnosis.) 2. A girl suffering from Ulceration and a thickened mass in the left deltoid which he considered to be a gummatous myositis.—Dr. A. Whitfield showed a girl, aged 17 years, suffering from a Symmetrical Eruption on the extensor surfaces of both forearms. The eruption was of two years' duration and caused moderate itching. The lesions were horny plugging of the hair follicles, some inflammatory papules round these, and in some cases indolent pustules. No true molluscous tumours were present. The occupation of the patient was brushmaking and necessitated the arms being constantly splashed with oil which came from the machine. It was doubtful what was the nature of this oil, but it was probably either a heavy petroleum oil or a mixture of this with some animal or vegetable oil. The eruptions due to paraffin and its allies were well known and were akin to those produced by tar. The case shown resembled in many of its points the chronic tar eruptions.—Mr. Mower White showed a specimen comprising the Centre of the Jaw and the Anterior Part of the Tongue, removed on account of an Epithelioma of the Floor of the Mouth. The point of interest was that the patient had suffered from great pain and enlargement of the submaxillary glands and it had been thought that the malignant process had spread into them along the ducts. It was found, however, that the pain and enlargement were due to obstruction of the ducts by the tumour and not to malignant change in the glands themselves.—The cases were discussed by the President, Dr. A. G. Auld, Mr. Elworthy, Dr. A. W. Wilson, Mr. White, and Dr. Whitfield.

**LARYNGOLOGICAL SOCIETY OF LONDON.**—A meeting of this society was held on Nov. 1st, Dr. E. Cresswell Baber, the President, being in the chair.—Mr. W. G. Spencer showed a case of Tertiary Syphilitic Laryngeal Stenosis treated by Laryngo-fissure without Tracheotomy, the result of which had been most satisfactory. There was no dyspnoea and the patient had quite an audible voice.—Mr. F. H. Westmacott showed a series of specimens, photographs, and drawings illustrating the Inflammatory Diseases of the Nose and Accessory Cavities.—Dr. Herbert Tilley showed two Molar Teeth in which the crowns were healthy, but evidence of caries in the palatal root was present. The patients from whom they were extracted both suffered from supuration of the corresponding maxillary antrum.—Dr. J. Donelan showed a case of Laryngeal Syphilis with Fixation of the Left Vocal Cord in a man, aged 52 years, and raised the question as to whether it was not malignant as well as syphilitic.—Dr. St. Clair Thomson showed a man, aged 33 years, who had been brought before the society in April last with Chronic Laryngitis and an Ulcer on one Vocal Cord, who now presented marked Lupus Infiltration and Ulceration of the Epiglottis.—Dr. E. B. Waggett showed a case of (?) Congenital Fenestration of the Anterior Pillars of the Fauces. Many such cases had been shown at the society

and much discussion had taken place as to whether they were of congenital origin or the result of scarlet fever. Dr. Clifford Beale said that since the last case of this sort was shown he had made inquiries at the fever hospitals and had learned that fenestration as the result of scarlet fever was practically unknown.—Mr. St. George Reid showed a series of Living Cultures of those Bacilli which simulate the Bacillus Tuberculosis by the staining reactions. Dr. Fitzgerald Powell showed a case of Papilloma of the Larynx which was peculiar in being almost pure white in appearance.—Dr. J. Dundas Grant showed a case of Epithelioma of the Epiglottis.—The operative treatment of such cases was discussed by Mr. H. T. Butlin and Dr. H. L. Lack.—Dr. Dundas Grant also showed a case of Nasal Stenosis in which the symptoms appeared to be chiefly subjective.—Mr. H. M. Ramsay showed a case of (?) Tuberculous Disease of the Epiglottis. It was thought to be lupus and suitable for treatment.—Dr. J. Bond showed a case of Swelling of the Left Ventricular Band in a boy, aged 14 years.

**FOLKESTONE MEDICAL SOCIETY.**—A meeting of this society was held on Nov. 1st.—Dr. W. J. Tyson, the President, congratulated Dr. J. E. G. Calverley on being made a C.M.G. in recognition of his services in South Africa.—Mr. A. Murdoch then read notes on a case treated by Anti-streptococcic Serum. On June 11th he attended a woman, aged 24 years, suffering from acute septicæmia, the focus of infection being a small operation wound in the right breast. Quinine, cold packs, &c., having failed to reduce the temperature he tried anti-streptococcic serum, injecting it altogether 12 times in 10 days, 10 cubic centimetres at a time, each time with most gratifying results. After this the patient made a steady and uninterrupted convalescence with the exception that a rash appeared on the body and limbs eight days after the last injection and lasted 24 hours. Mr. Murdoch was much struck with the power of the serum in reducing the temperature (more than once an injection of 10 cubic centimetres produced a steady fall from 105° F. to normal) and still more by its power of preventing a rise when given whilst the temperature was low. In no case did any ill-effect, either local or constitutional, follow an injection. He believed it to be most important to use fresh serum, to take the most scrupulous antiseptic precautions, to give it often and in good doses, and if it was to be of service to start it early in the disease and not as a last resource, as was so often done. He injected the serum each time into a different part of the body, but did not think the place mattered much. He, however, preferred the shin or the forearm. He thought that the use of ethyl chloride before inserting the somewhat large needle was a good plan.—In the subsequent discussion Mr. H. Braund, Dr. T. Eastes, Dr. P. G. Lewis, Dr. C. Latter, Mr. W. F. Chambers, Dr. A. E. Larking, Dr. L. Wainwright, Dr. Calverley, Dr. W. L. Chubb, Mr. A. Randall Davis, Dr. J. Hackney, and the President took part.—Mr. Yunge-Bateman, medical officer of health of Folkestone, read the resolutions of the recent Congress on Tuberculosis and asked the society to support him in getting the compulsory notification of tuberculosis adopted by the town council.—After a lengthy discussion the matter was adjourned to a special meeting.

**HALIFAX AND DISTRICT MEDICAL SOCIETY.**—The first meeting of the session of this society was held on Oct. 8th, when Dr. S. Lodge, the President, gave an address upon the Diagnosis and Treatment of Suppuration in the Middle Ear and its Complications. The differential diagnosis of marasmic thrombosis of the intracranial venous sinuses from infective and traumatic thromboses was discussed. The importance of recognising pneumococcal and tuberculous suppurative middle-ear mischief was also dwelt upon. The various operative procedures for suppurative processes in the middle ear and its adnexa were dealt with at length. Much stress was laid upon the necessity for following surgically the path of invasion of the cranial cavity whenever possible—e.g., draining a temporo-sphenoidal abscess through the tegmen tympani or a cerebellar abscess through erosion in the posterior surface of the petrous bone, thus preventing unnecessary wounding of the lateral lobes of the cerebellum to reach the abscess cavity. A vote of thanks to the President for his address brought the proceedings to a close.—The second meeting of the society, held on Nov. 12th, was devoted to the exhibition of clinical cases and pathological specimens. Among others the following cases were shown:—Dr. George Hoyle: Congenital Absence of the Sternum.—Dr. T. H. C.

Stevenson: Aphasia.—Dr. P. Leech: Tendon Lengthening.—Dr. J. C. Wright: Congenital Absence of Both Radii.—Dr. Lockwood: Ruptured Tubal Fœtation; Abdominal Section; Recovery.—Dr. A. Mantle: Lymphadenoma.—The pathological specimens included a Hydatid Mole and a Fœtus with Meningocele, both shown by Dr. J. F. Strickland.

**FORFARSHIRE MEDICAL ASSOCIATION.**—A meeting of this society was held on Nov. 1st, Professor D. MacEwan, the President, being in the chair.—The President referred to the loss the association had sustained by the death of Dr. J. W. Miller, an esteemed and active member who had practised in Dundee for the long period of 44 years. His life had been one of unceasing activity and of singular devotion to his profession and to the furthering of many objects relating to the health and well-being of the community. He held the office of physician to the Royal Infirmary for the usual term, and during that time he published a paper on the Thermometry of Continued Fevers. Afterwards as a consulting physician and as a director he rendered invaluable service in guiding the affairs of the institution. It was to his initiation that the existence of the Maternity Hospital was due. The President also referred to the death of a former President, Dr. Russell of Arbroath, which had occurred recently after a short illness.—Professor Chiene then delivered an address on Surgery 60 Years Ago and that of the Present Time, pointing out the changes which had taken place and the enormous increase in operations.—A meeting of the society was also held on Nov. 7th, Professor D. MacEwan, the President, being in the chair.—Dr. G. Halley showed a patient with Veldt Sores.—Dr. R. C. Buist read notes of several cases illustrative of Myomata and showed the tumours removed from a throat which he had operated on.—Dr. A. McGillivray described the advantages of Protargol in Ophthalmic Work. He used it in a solution of the strength of 10 per cent. in catarrhal conjunctivitis, ophthalmia neonatorum, gonorrhœal conjunctivitis, &c., and recommended it as better than silver nitrate. He had found no bad effects result from using it.—Mr. D. M. Greig spoke of its use in urethritis but said that he used it in a weaker solution. He also referred to the pain which it caused if a strong solution was used from the commencement of treatment.—The President referred to its use in vesical cases in solutions varying in strength from  $\frac{1}{2}$  per cent. to 4 per cent.

**PATHOLOGICAL SOCIETY OF MANCHESTER.**—A meeting of this society was held on Nov. 13th, Mr. J. Collier, the President, being in the chair.—Dr. A. T. Wilkinson described a case of Congenital Idiopathic Dilatation of the Colon.—The President and Dr. C. H. Melland showed specimens from two cases illustrating Tuberculous Infiltration of Muscle.—Mr. Southam showed the specimens and mentioned three cases of Enterectomy and End-to-end Suture of the Intestine for the following conditions: (1) fecal fistula involving the small intestine; (2) carcinoma of the sigmoid flexure of the colon; and (3) closure of a colotomy opening, the operation having been performed four years previously for the relief of simple ulceration of the rectum. In each instance the patient made a good recovery from the operation.—Dr. R. T. Williamson reported a case of Brain Tumour (of the centrum ovale) and showed microscopical specimens from the growth. The chief symptoms were hemiplegia of gradual onset, headache, and occasional vomiting. Optic neuritis and convulsions were absent. The tumour was a glioma rich in large cells (so-called "ganglionic neuro-glioma"). The cells presented various forms—large cells with several processes, oval or round cells with one short curved process, large spindle cells, large round cells without any process, and small glia cells.—Dr. E. S. Yonge read a short communication on Some Practical Points in the Pathology of Malignant Disease of the Larynx.

**BRISTOL MEDICO-CHIRURGICAL SOCIETY.**—The second meeting of the session was held on Nov. 13th, Dr. B. J. Baron being in the chair.—Mr. T. Carwardine showed (1) a patient with Symmetrical Lipomata of Unusual Distribution; and (2) a case of Sarcoma which he considered had undergone spontaneous recovery.—Mr. C. A. Morton, Dr. T. Fisher, Dr. J. L. Firth, and Mr. S. R. Williams discussed the cases.—Dr. E. C. Williams showed a child with a peculiar Cardiac Murmur.—Dr. Michell Clarke, Dr. Stack, Dr. W. K. Wills, Dr. Fisher, Dr. E. Markham Skerritt, and Dr. C. Elliott spoke on the condition of the heart.—Dr. W. H. C.

Newnham showed the following specimens: (1) Ruptured Tubal Pregnancy; (2) Pregnant Fibroid Uterus; and (3) Fibroid Uterus of an unusual character.—Dr. J. Swain, Mr. Carwardine, and Mr. Morton commented on the specimens.—Dr. Fisher showed specimens of Actinomycosis of the Liver and the Lungs.—Dr. Swain, Dr. Skerritt, Mr. Carwardine, and Mr. J. Paul Bush spoke on the subject.—Dr. Walter C. Swayne read a paper on Three Cases of Abdominal Section and showed the specimens.—Mr. Morton discussed the paper.—Mr. James Taylor read a paper on X Rays in the Diagnosis of Renal Calculus.—Mr. Paul Bush, Dr. Swain, Mr. Morton, Dr. F. H. Edgeworth, Mr. A. L. Flemming, and Dr. Fisher discussed the paper.

**NORTH-EAST LONDON CLINICAL SOCIETY.**—A meeting of this society was held on Nov. 7th, Dr. F. J. Tresilian, the President, being in the chair.—Dr. E. F. Willoughby read notes on two cases of Poisoning, one by atropine and the other by morphia.—The President showed (1) a case of Sub-glottic Stenosis in a man, aged 40 years, the result of tertiary syphilis; (2) a case of Diabetic Retinitis; and (3) specimens of Inferior Turbinals removed by the spokeshave.—Mr. Walter Edmunds showed a girl, aged 17 years, who had been operated on for Perforated Gastric Ulcer. A short discussion followed on the early diagnosis and treatment of gastric ulcer.—Dr. Hooper May showed an Enterolith removed by Enterotomy.—Dr. A. J. Whiting showed (1) a case of Athetosis; and (2) a case of Paralysis following German Measles.—Mr. H. W. Carson showed (1) a case of Pseudo-hermaphroditism; and (2) an Ovary and Fallopian Tube removed from the Sac of a Strangulated Inguinal Hernia.—Dr. Murray Leslie showed a case of Aneurysm of the Arch of the Aorta in a woman, aged 45 years, the subject of tertiary syphilis. A discussion followed on the treatment by the gelatin method.—Dr. Arthur Giles showed specimens of (1) Carcinoma of the Cervix removed by Vaginal Hysterectomy; and (2) two Fallopian Tubes removed by Abdominal Section for Pyosalpinx.—Dr. Veitch Clark showed a case of Congenital Pulmonary Stenosis.

**GLASGOW SOUTHERN MEDICAL SOCIETY.**—A meeting of this society was held on Nov. 14th, Dr. John Stewart, the President, being in the chair.—Dr. A. Maitland Ramsay gave a series of interesting demonstrations in connexion with Diseases of the Eye. The first demonstration consisted of an exhibition of the more common external diseases of the eye and ophthalmoscopic cases; some pathological specimens, microscopic and macroscopic; and a number of very fine stereoscopic photographs, skiagrams, and lantern slides. At a later part of the evening a number of optical instruments were displayed and a demonstration was given of the Modern Application of Electricity in the Treatment of Eye Disease. The Finsen lamp was also shown and its application in photo-therapy was demonstrated. Dr. Ramsay brought the proceedings of the evening to a close by a short and lucid lecture, accompanied by lantern demonstration, on Hypopyon Ulcer, including its Causation, Complications, and Treatment.—On the motion of the President a cordial vote of thanks was awarded to Dr. Ramsay for his demonstrations.

**NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.**—A meeting of this society was held on Nov. 6th.—Mr. E. C. Kingdon, the President, delivered an address on the Temples and Ritual of Æsculapius, illustrated by lantern slides kindly lent to him by Dr. R. Caton (Liverpool). After referring to the mythological accounts of the birth and subsequent deification of Æsculapius the President described the ruins which had been discovered on the sites on the Asclepia at Epidaurus and Athens. He showed that it was possible from the numerous inscriptions and votive tablets which had been recovered, aided by the descriptions of Pausanias, to discern the character of the worship of Æsculapius, its relations to ancient medicine, and its bearings on Greek life in general.—There was a large attendance and at the close of the proceedings a vote of thanks, proposed by Dr. W. Hunter and seconded by Dr. C. H. Cattle, was unanimously accorded to the President for his most interesting address.

**SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.**—A meeting of this society was held on Nov. 7th, Dr. C. H. Willey, the President, being in the chair.—Dr. J. H. Keeling related Two Cases of Abdominal Hysterectomy and showed the specimens.—Dr. D. Burgess showed

specimens from: (1) a case of Addison's Disease in a boy, aged nine years; and (2) a case of Granular Contracted Kidney in a boy, aged 16 years, a plumber, who had suffered from lead-poisoning.—Mr. A. M. Connell showed specimens from the following cases: (1) Abdominal Nephrectomy for Sarcoma; and (2) Lumbar Nephrectomy for Tubercle.—Dr. A. J. Hall showed a Simple Method for the Clinical Estimation of Hæmoglobin.—Dr. C. N. Gwynne read a paper entitled, "Congenital Hypertrophy of the Sigmoid," and showed a case. The patient, a boy, aged six and a half years, had been subject from birth to an exaggerated form of chronic constipation. Of late years his abdomen had been much enlarged and before admission had been rapidly increasing until it measured 31 inches in circumference at the umbilicus. As no action of the bowels could be obtained an iliac colotomy was performed. After the operation the boy improved in general health and his abdomen gradually became reduced to almost normal dimensions.

## Reviews and Notices of Books.

*Dictionary of National Biography.* Supplement. London: Smith, Elder, and Co. 1901. Three vols. Price 15s. per vol.

THE supplement to the "Dictionary of National Biography" contains a thousand articles of which 200 represent accidental omissions from the previously published 63 volumes, the remainder being the biographies of persons who have died during the 15 years occupied by the quarterly issue of the work. It was originally intended that the supplement to the Dictionary should bring the biographical record of national achievement to the end of the nineteenth century, but the death of Queen Victoria occurring on Jan. 22nd, 1901, closed so definite and important an epoch in British history that this date was considered by the editor to be a better defined historic landmark than the mere calendar date. The scope of the supplement was consequently extended so that the day of the Queen's death might become its farthest limit instead of the end of the century with which that sad event so nearly synchronised.

The longest biography in the supplementary volumes is, of course, that of the late Queen. It is a conscientious if dull record from the pen of the editor, Mr. Sidney Lee, which does not reveal proper appreciation of her great qualities, though it extols her devotion to duty and her beautiful family life. A brief summary at the end of the article shows the late Queen's temperament and her attitude towards such important matters as Imperial unity, the business of State, the prerogative of the Crown, and foreign relations. Mr. Lee's is a painstaking performance of what was obviously a very delicate task. If he has not quite risen to his opportunity it will be allowed that to record in a summary the life of one of the greatest monarchs the world has ever seen within a few months of her death is a performance that might tax the powers of the ablest historian.

Another long biography will be found in the second supplementary volume, which will be read with interest by all citizens of the empire. It is the life of Mr. Gladstone. Mr. Herbert Paul has performed a difficult literary feat in presenting us within a readable compass so full an account of the career of the great Liberal statesman. His article is an abbreviated edition of a biography which will shortly appear in full. Other men of general eminence whose work might be supposed to be of particular interest to medical men and whose lives are contained in these volumes are the first Duke of Westminster; the eighth Duke of Argyll; the seventh Duke of Devonshire; Lord Armstrong, the great engineer; Matthew Arnold; Sir Joseph Bazalgette, the engineer of the Thames Embankment; Charles Bradlaugh, reformer; the following artists, Sir

Edward Burne-Jones, Alfred Hunt, George du Maurier, Lord Leighton, and Sir John Millais; Sir Samuel Baker, traveller; Sir Richard Burton, traveller and scholar; P. H. Carpenter, zoologist; "Lewis Carroll"; Henry Bowman Brady, pharmacist; Lord Randolph Churchill; Lord Coleridge and Lord Russell, both Lord Chief Justices of England; Cayley, the mathematician; Thomas Huxley; Sir John Bennet Lawes, a pioneer of scientific agriculture; Archbishop Benson; Max Müller, philologist; Blackmore, James Payn, and Grant Allen, novelists, the last-named being also an ardent evolutionist and Darwinian student; Sir Edwin Chadwick, sanitarian; G. J. Symons, meteorologist; John Ruskin; Fred Archer, the well-known jockey; Oscar Wilde; and Barnett Barnato.

The medical names are of great interest, including as they do Sir Henry Acland, John Anderson, William Francis Ainsworth, Sir Rutherford Alcock, Charles Spence Bate, Sir James Risdon Bennett, Edward Green Balfour, Thomas Graham Balfour, Henry Walter Bellew, John Syer Bristowe, C. E. Brown-Séquard, Sir J. C. Bucknill, Sir George Buchanan, Sir George Burrows, A. J. Carpenter, Sir Andrew Clark, James Matthews Duncan, Ernest Hart, Jabez Hogg, Sir George Murray Humphry, Sir William Jenner, William Munk, Sir James Paget, Sir William Priestley, Sir Richard Quain, Sir William Stokes, R. Lawson Tait, St. George Jackson Mivart, and Sir Richard Thorne Thorne. Of the career of our professional brethren included in the volumes under notice it is not necessary in most instances to speak further here. Their life's work has but recently come to an end and their labours must be fresh in the minds of all men, and a full account of them has appeared in these columns, upon which we see that the biographers have in most instances drawn. But of those who are the less known in a purely professional way it is fitting that we should say something. William Francis Ainsworth (1807-1896) was born at Exeter, his father being a captain in the army. In 1827 he became a Licentiate of the Royal College of Surgeons of Edinburgh and afterwards studied in London and Paris, at which latter place he became an *interne* in the School of Mines. While in France he studied geology in Auvergne and the Pyrenees. In 1831 he made an elaborate study of the cholera outbreak at Sunderland, which in the following year led to his being appointed surgeon to the cholera hospital of St. George's, Hanover-square. On the disease appearing in Ireland Ainsworth acted successively as surgeon to the hospitals at Westport, Ballinrobe, Claremorris, and Newport. In 1835 he was appointed to the Euphrates Valley Expedition under Francis Rawdon Chesney as surgeon and geologist, and shortly after his return he went out to visit the Christians of Chaldea—an expedition the expenses of which were borne jointly by the Royal Geographical Society and the Society for Promoting Christian Knowledge. In 1840 he explored the Kurdish mountains and visited the Lake of Urmi in Persia, around which are a number of Nestorian villages. After his return to England he settled at Hammersmith and was one of the founders of the West London Hospital. Sir Rutherford Alcock (1809-1897) was the son of a medical man and was himself educated for the medical profession. He was for a time house surgeon at Westminster Hospital, and in 1832 was appointed surgeon to the British-Portuguese force operating in Portugal. In 1836 he was transferred to the marine brigade engaged in the Carlist War and became deputy-inspector-general of hospitals. On returning to England he held the post of lecturer in surgery at Sydenham College. But his real life's work commenced on his being appointed consul at Fuchow whence after one and a half years he was transferred to Shanghai. His services in Japan, where he was consul-general, and again at Peking, where he was Minister Plenipotentiary, are writ large in the diplomatic annals of his country.

Edward Green Balfour (1813-1889) was born at Montrose, studied medicine at Edinburgh, and in 1834 entered the medical department of the Indian Army. His service in India covered a period of 42 years, during which time he did a vast amount of valuable work both from the purely medical point of view and as an organiser. His great work was the monumental "Encyclopædia of India and of Eastern and Southern Asia, Commercial, Industrial, and Scientific," which appeared first in 1857. From 1871 to 1876 he was, as surgeon-general, head of the Madras Medical Department. Thomas Graham Balfour (1813-1891) graduated as M.D. of Edinburgh in 1834 and in 1836 entered the Army Medical Department. In 1857 he was appointed secretary to Sidney Herbert's Committee on the sanitary state of the army, and in 1859 was appointed deputy-inspector-general in charge of the statistical branch of the Army Medical Department. He was elected F.R.S. in 1858 and in 1887 was appointed honorary physician to the Queen. We may parenthetically mention that he was for many years a valued member of our staff. Charles Spence Bate (1819-1889) was educated as a dentist, and in 1860 received the licence of the Royal College of Surgeons of England to practise dentistry. He was quite at the head of his profession and in 1885 was president of the Odontological Society, while at the International Medical Congress held in London in 1881 he served as vice-president of the odontological section. He lived at Plymouth and in addition to his purely professional attainments was recognised as the greatest living authority on crustacea. Sir Edwin Chadwick, though not strictly speaking a medical man in that he did not study medicine and had no medical qualification, was, however, so eminent as a sanitarian that he may claim to be mentioned among medical men. He was born in 1800 and educated for the legal profession. He was always interested in sanitary matters and explored fever dens at the risk of his life, when in 1832 he received the offer of an assistant Poor-law commissioner. In the following year he was made a chief commissioner. Space fails us to enumerate in detail all Chadwick's services to the body politic, but we may say that the Ten Hours Act, the half-time system—not, by the way, an unmixed blessing—and the Employers' Liability Act (1898) were due to his report on factories, the investigations for which began in 1833. In sanitary matters it was owing to him that the first sanitary commission was appointed in 1839, while he was the first to recommend a separate system of drainage for London. During the Crimean war he persuaded Palmerston to send out a commission of inquiry into the condition of the troops, and he did much sanitary work for India, including a scheme for the drainage of Cawnpore.

So with the issue of the third supplementary volume closes a work upon which all concerned may congratulate themselves. A great scheme has been steadily carried out, not without slips and inaccuracies, but on the whole impartially and ably. Within the 66 volumes is contained the record of our "rough island story." From Cassivelaunus to Victoria runs the tale of men and women who have worked each in their separate sphere mainly for the good, sometimes perhaps for the evil, of their fellows. Times change, one generation follows upon another, but the struggles, the failures, the successes, the falls and the rising again are still for us who remain here as they were for those who, in the words of by no means the least man mentioned in the Dictionary, have "sailed into the calm."

*The Nordrach Treatment for Consumptives in this Country.*  
By JAMES ARTHUR GIBSON. London: Sampson Low, Marston, and Co. 1901. 8vo, pp. 163. Price 3s. 6d.

THIS is a republication of signed articles on consumption which have appeared during the last two years in the *Nineteenth Century* and the *Westminster Review*, with

considerable additions and alterations. The writer is not a medical man, but has been trained as a chemist and, as he states in the first chapter, has himself suffered from pulmonary consumption and has been cured at Nordrach. The tone of the whole book is optimistic in the extreme and the style is trenchant and enthusiastic. The author undoubtedly has the courage of his opinions, and as the work is not addressed particularly to the medical profession, our ideas and prejudices are not too tenderly handled; at the same time, due respect is shown and nowhere in the book is there any lack of courtesy or good feeling.

The writer is firmly convinced not only that pulmonary phthisis is curable, but that the treatment carried out at Nordrach under Dr. Otto Walther is the true and efficient one; also that the Nordrach method could be carried out equally well in any climate whatsoever, for "climate certainly has nothing to do either with the cause or the cure of consumption." Patients with phthisis are recommended to go out in all weathers, fogs included. It is with regard to this subject of climate alone that we cannot heartily endorse everything that the author has written. His technical and scientific knowledge is of no mean order, but he is not a medical man and underrates the value of the climatic treatment of lung disease. He omits to notice the irritating nature of the fogs and of some of the winds in large cities; he makes nothing of the effect produced on irritable mucous membranes by the sulphurous and other particles in the air. Possibly for many years we in the profession have over-estimated the effects of climate and have sent patients away from home on account of their acquired weakness instead of attempting to harden them and to fit them to remain where they are.

It is, perhaps, hardly surprising that the author, with such advanced ideas as his, should have been called a visionary; that is the fate of everyone in the front rank of the ideas of this age. On page 27 we read: "By these means—preventing the spread of the disease, curing to the utmost extent the existing cases, and singling out at once fresh cases for treatment—tuberculosis in man would at no distant date be eradicated and a death from such a cause would be as rare in this country as a death from leprosy." The author does not leave the practical side of the subject at this point. He goes into the questions of building sanatoriums, of the expenses of the method, and of the training of suitable medical officers very thoroughly, and writes with much breadth of view and common sense. The profession in England is accused of being behind the time in its efforts to deal with the scourge of consumption, which yearly accounts for from 50,000 to 70,000 deaths in the British Isles. However, the profession is not deserving of the blame in this matter. Medical men do their very best in the face of very difficult conditions. It is not true that medical men are, as a whole, ignorant of the conditions under which consumptives are most likely to become cured, but the profession is most inadequately represented in all the councils of the nation and its members have to produce real medical reforms by educating the whole public and not by influencing the few legislators.

It is only fair to Mr. Gibson to acknowledge that he has answered his critics in a thoroughly conscientious manner. The old idea of the soundness of the principle of always "starving a fever" has been shown to be erroneous; for at Nordrach even patients with extreme pyrexial phthisis, confined to bed and greatly debilitated, are fed with large meals, greatly to their discomfort at first, but greatly to their benefit subsequently. In fact, it is the only hope for far advanced cases. Some practitioners have thought that this systematic overfeeding would necessarily in some cases result in "seriously damaged digestive apparatus" and to disprove this Mr. Gibson has quoted several medical authorities having special sources of knowledge. Dr. R. Mander Smyth, who

was a Nordrach patient and once Dr. Walther's assistant, is emphatic in his views of the physiological value of the Nordrach method, and Dr. W. R. Thurnam, also a cured patient, is of the same way of thinking. As to the idea that surely the weight thus gained under pressure must be rapidly lost when the treatment has ceased, the author states that nothing of the kind occurs unless through subsequent carelessness. The fourth and last section of the book is devoted to the hygienic virtues of the "open window" and the author has thoroughly assimilated all of Dr. Otto Walther's views with regard to the desirability of draughts. The book is worth reading, if only for this last section, which is written in a breezy, bracing style which cannot fail to interest those who love fresh air, exercise, and the tone of an open-air life. Whatever its faults, the book is the work of one who is thoroughly in earnest and thoroughly practical.

*The Principles and Practice of Medicine, designed for the Use of Practitioners and Students of Medicine.* By WILLIAM OSLER, M.D., LL.D. Edin., F.R.S., F.R.C.P., Professor of Medicine at the Johns Hopkins University, and Physician-in-Chief to the Johns Hopkins Hospital, Baltimore; formerly Professor of the Institutes of Medicine, McGill University, Montreal; and Professor of Clinical Medicine in the University of Pennsylvania, Philadelphia. Fourth edition. Edinburgh and London: Young J. Pentland. 1901. Pp. 1182. Price 24s.

THE book of which this is the fourth edition forced itself from the first by its merits into the foremost rank among works on the principles and practice of medicine. We have on previous occasions had the gratification of calling attention to these merits and of since seeing how they have been extensively recognised and appreciated. "Osler's Medicine," it is needless to say, is a very well-known book in the medical profession of this country and other countries. It is a work of supererogation, therefore, to make the appearance of a new edition of it the occasion of any lengthy review. We have only to satisfy ourselves that it has been carefully revised and that such changes and additions have been made to it as are required by the progress of medical science. We need have no hesitation in saying that this has been done thoroughly and in a spirit of intellectual honesty. Some of the chapters—that on typhoid fever in Section I. on Specific Infectious Diseases, for example—have been in great part re-written and, practically speaking, many new articles have been added, whilst others have either been recast or have received such additions and amendments at the hands of the author and those associated with him as fully to sustain the reputation of the work and to justify the confidence which the profession extended to the previous editions. Turning over the pages of a typical treatise on modern medicine and lingering here and there over sections devoted to subjects of fresh or special interest, it is impossible to avoid being struck with the notable change which has taken place between the older treatises and those of the present time. The spirit, the method, and even the literary style have undergone a revolution. The germ theory of disease, bacteriological researches, and many recent discoveries have not only opened out new fields of investigation, but have changed the aspects of old ones. This is prominently brought out in the volume before us and may be at once seen by reading those portions of it which deal with specific infectious fevers, with the subject of malaria and the principal diseases of tropical and sub-tropical climates (which receive a good deal of consideration), with tuberculosis, and with diseases of the nervous system. The best and more classical works of the past owed much of their value to their being a record of the results of the reading and matured experience and the shrewd and penetrating observation of their authors. The graphic descriptions of disease, illustrated by clinical details which were both pertinent and

interesting, were often set forth in a style which was so good and so lucid as to make them admirable reading; whereas the author of a modern treatise is imbued with a scientific aim, spirit, and method. He presses towards precision and system, strives to relegate facts and phenomena to some law or order of things, and, amid apparent diversity, seeks for etiological and pathological unity and guiding principles of prophylaxis wherever these are discoverable. It is characteristic of treatises like Osler's "Principles and Practice of Medicine" that they are moulded on these lines. It would extend our notice to unreasonable length if we were to detail the numerous changes and additions which have been made to bring this fourth edition well up to date, but this, as we have intimated, has been conscientiously done. In any case we trust we have said enough to indicate the very high opinion we entertain of its merits. In conclusion it may be added that this fresh edition of Osler's "Principles and Practice of Medicine" is a large volume consisting altogether of nearly 1200 pages, that it is graphically illustrated here and there with a few tables and plates, and that it is well printed and supplied with a good index.

*Outlines of Gynecological Pathology and Morbid Anatomy.*

By C. HUBERT ROBERTS, M.D. Lond. With 151 illustrations, mostly original. London: J. and A. Churchill. 1901. 8vo, pp. 332. Price 21s.

WHEN we saw it announced that Messrs. Churchill were to publish a manual upon Gynecological Pathology and Morbid Anatomy by Dr. Hubert Roberts we hoped that the want which had long been felt of a trustworthy English text-book upon this subject was to be met. With the published work before us we must confess to a considerable sense of disappointment. Dr. Roberts's views and ours as to what should be included under the head of gynecological pathology and morbid anatomy are widely different. In his work a great deal has been inserted which we would wish omitted and a great deal has been omitted which we think might well have been inserted. If we may give an example we would suggest that the purely anatomical details and the chapters upon the Diseases of the Bladder, Urethra, and Ureters might all have been left out, while a book upon gynecological morbid anatomy which does not contain a single illustration of the microscopical changes met with in such common conditions as vaginitis, erosions of the cervix, extra-uterine gestation, fibro-myomata of the uterus, sarcoma of the uterus, oöphoritis, and the various forms of salpingitis seems to us to exhibit many most important omissions. It may be urged either that such illustrations are not of the value that we think them or that such specimens are rare and difficult to obtain. To the latter objection we would reply that the collection and examination of such material is one of the most essential preliminaries to the writing of a text-book upon gynecological morbid anatomy. With regard to the necessity of such illustrations our experience is that students find little difficulty in recognising naked-eye specimens of gynecological pathology. This is no doubt due to the numerous opportunities they have of seeing and examining them in the operating theatre and the pathological museum. They usually, however, possess but little knowledge of the pathological changes which can only be detected by the microscopical examination of these specimens. This knowledge may be acquired either by the examination of the microscopical sections themselves or by the study of book illustrations. Descriptions of microscopical detail without any illustrations are admittedly difficult to follow and to understand. For these reasons we think that Dr. Roberts would have materially enhanced the value of his book had he included drawings of the microscopical changes present in the various important conditions mentioned. As a reflex of the current teaching of many English gynecologists, and more especially of those connected with the medical school of St. Bartholomew's Hospital,

this work has a certain value and contains a good deal of useful information. It is, however, almost impossible to criticise the subject matter of a book of this kind since a very large part of it is made up, not of the opinions or experience of the writer himself, but of those of the various authors whom he quotes. We do not, therefore, propose to criticise the work in detail; it will suffice to say that the pathology of the various parts of the genital tract is fully discussed and that besides the special chapters already alluded to there are others on Gonorrhoea in Relation to Pelvic Inflammation, on Menstruation and its Disorders, and a final chapter on Micro-organisms in Relation to Diseases of Women. Dr. Roberts has given most copious references to the many papers and books which he has consulted, and no doubt, as he says, they will be of service to his readers. At the same time we think, and always have thought, that such references are entirely out of place in a manual intended primarily for students, and we must regretfully add that Dr. Roberts's style is so involved as to considerably lessen the value of his work as a text-book for learners in the subjects of which it treats. To come to praise the illustrations are the best part of the work and many of them are of great excellence. Of the 85 or so which are original the majority are drawn by the author himself from specimens in the museum of the Royal College of Surgeons of England or in the museums of St. Thomas's Hospital and St. Bartholomew's Hospital. They are well reproduced and are printed upon special interleaved pages apart from the text, a method which is always necessary if justice is to be done to good drawings. The index is full and complete.

We cannot but regret that, according to our view, Dr. Roberts has not made a better use of his opportunity. No English book exists at the present time dealing solely with gynecological morbid anatomy, and had the author confined his attention mainly to this part of the subject and written a book comparable to the very excellent manuals of Orthmann or Amann, or, if he wished to write a more comprehensive treatise, had he modelled his work upon that of Gebhard, we think that the result would have been of much greater value and of much greater utility to the student.

CHRISTMAS AND NEW YEAR GREETING CARDS.

THE artistic productions of Messrs. Raphael Tuck and Sons, of Raphael House, Moorfields, E.C., for the approaching season are quite up to the high standard of past years, and the album now before us includes some of the best features of its predecessors and several new designs. Among so much which is so good the honour of first place must be accorded to the "Royal" card, a replica of the last annual Christmas card which Messrs. Tuck had the honour of preparing for the late Queen Victoria, and which Her Majesty pronounced to be "beautiful." As will be readily understood in this connexion where our late Queen was concerned, the subject chosen is that of a "true" Christmas card—namely, the Blessed Virgin and the Child Jesus, beautifully treated by Harriett M. Bennett and reproduced in Messrs. Tuck's best style. Among the novelties of the present collection may be noted the "Bronze Statuesque" series, all clever representations in relief; the "Heraldic," the "Secessionist," and the "Goodwill" series. There are also numerous picture books, private autograph greeting cards, and pictorial calendars, one of the last-named, the "Sacred Art" calendar, comprising four very excellent reproductions in colour of well-known pictures by Raphael and Correggio. It is ungracious, perhaps, to criticise where all is generally so good, but we cannot help regretting the general tendency to eliminate from pictorial Christmas cards those representations of the Infant Saviour—in olden times the rule—without which present-day so-called "Christmas" cards are quite meaningless.

# THE LANCET.

LONDON: SATURDAY, NOVEMBER 23, 1901.

## Medical Students and the London Schools.

THE reduction in the entry of students in the London medical schools is this year undoubted. We published in THE LANCET of Nov. 9th (p. 1286) from a well-informed correspondent an article which attempted, and more or less succeeded in giving, an explanation of this falling off, but we believe that the attraction of the Scotch and provincial medical degrees is responsible for the paucity of London recruits to the medical profession every whit as much as the elimination from the list of entrance tests of the second-class examination of the College of Preceptors. Mr. F. W. COLLINGWOOD's brief letter in our columns last week (p. 1375) calls attention to this point and reminds us that we have received through him a circular upon the subject of medical degrees for London students emanating from a newly formed body entitled the London Licentiates and Members Society. The aims and objects of this society are as follows: (1) to petition the Royal Colleges, (a) to obtain powers to grant degrees, (b) or in the alternative to join with the University (i.e. of London) for the same object; and (2) to request the Royal College of Physicians to rescind their by-law prohibiting Fellows, Members, and Licentiates from using the popular title of "Doctor." The circular further calls attention to the fact that in 1887 the two English Royal Colleges endeavoured to obtain powers to grant a degree on the same standard as that on which they then granted their diplomas, and no opposition was offered to this scheme by the University of London. The first meeting of the society will be held on Friday, Nov. 29th, at the Wimpole Hotel, Wimpole-street, when Dr. F. J. SMITH will preside and an attempt will be made to formulate a line of policy.

We have every sympathy with the attempt of this latest combination to obtain a medical degree for London students upon similar terms to those enjoyed by the students of the Scotch and provincial universities, but we do not quite see from their circular what procedure they propose to employ that has not been vainly employed already. Much is to be said for perseverance; and the keeping of their grievance prominently before the large section of the medical profession who have received their education in the London schools has its commendable side, for if the possibility of a practical move should reveal itself many will be familiar with the arguments for reform. But the London Licentiates and Members Society will not attract many adherents unless they can show that they have reasonable hopes of succeeding where others have failed. The movement for the granting of degrees on equitable terms to London medical students was started in THE LANCET of July 25th, 1885, and a memorial in its support was presented to the Royal Colleges of Physicians of London and Surgeons of England, signed by 600 teachers, practitioners,

and students of medicine. In October, 1885, Sir SAMUEL WILKS successfully moved in the Royal College of Physicians of London, "That it is desirable that persons examined by the Royal College of Physicians of London and the Royal College of Surgeons of England conjointly and found duly qualified, either by the ordinary or an additional qualification, should have a degree in medicine and surgery conferred on them." This motion was adopted, having been supported by many of the most eminent Fellows of the College. Delegates were appointed by both Royal Colleges to consider the question of the desirability and practicability of granting degrees in medicine and surgery to persons who had passed the conjoint examinations of the two Colleges, and several reports were presented by them to the Colleges, the last in December, 1886. All the reports were in favour of giving a degree in medicine and surgery to London medical students by the Royal Colleges. An application for this purpose was then made to the Crown. The scheme was brought before a Royal Commission, and on April 28th, 1889, the petition to grant degrees in medicine and surgery was unanimously rejected. The reports of the delegates, the speeches of the leaders of the medical profession in London, all eager to remedy an acknowledged hardship, and a large number of articles and well-informed communications upon the subject will be found in our columns. Is the London Licentiates and Members Society familiar with the history of what has been attempted?

Dr. F. J. SMITH, in his letter which we publish this week on p. 1444, foreshadows that the first combined attempt of the London Licentiates and Members Society will be in the direction of persuading the Royal Colleges of Physicians of London and Surgeons of England to approach the University of London in order that the University may admit the members of the society to its final examinations in medicine. We doubt if the Royal Colleges will be persuaded, or if the University of London is likely to look kindly upon the idea. If the Royal Colleges can influence the reformed University of London to admit London medical students to a modified curriculum under the supervision of the Royal Colleges, and to make the matriculation and preliminary scientific examinations more practical and practicable than they are now, the London student will be placed on much the same basis as his Scottish and provincial brethren. The London Licentiates and Members Society might work towards this end if they fail in other directions. But here their work will be altruistic, for if success should crown their efforts justice would be done to the future London medical students, but no retrospective consideration, we think, would be extended to past diplomates. We do not consider it in the least likely that the University of London will ever grant its medical degree to existing Licentiates and Members of the Royal Colleges upon easy terms. This is a hard thought, but there is no kindness in buoying up a large circle of our readers to expect otherwise.

## The Public Hearing of Indecent Cases.

IN a case now attracting considerable public attention evidence is being given before the magistrate at one of the London police-courts of alleged criminal acts

absolutely startling in their hideous and bestial filthiness. More or less expurgated versions of this evidence are published in many newspapers, and at the back of the court, as is usual on such occasions, an eager crowd gratifies a prurient curiosity by listening to the gruesome narrative which it is the duty of the prosecuting counsel to elicit and of the magistrate to hear. From time to time cases occur involving evidence of acts of indecency and lust, and frequently on these occasions the question is raised as to whether it is right that the public should be admitted to the hearing—the public consisting admittedly, to a large extent, of idle men curious to hear the obscene, for women and children are almost invariably excluded, and the atmosphere of a criminal court is not attractive to the better class of citizen. On these occasions many persons strongly condemn the reporting of any intelligible details of the cases for reasons which are worth medical consideration.

The publication of obscene matter as such involves danger to those responsible for it, and the question may, as a rule, be left to the discretion of the editor whose newspaper will suffer should his readers' feelings be outraged. With regard to the admission of the public to courts in which evidence is being given of obscene acts and crimes of lust the precise legal position of the public is not universally known or absolutely clear. The final trial of crimes, whether by courts of summary jurisdiction or before juries on indictment, and the trial of matrimonial cases in which divorce as distinct from a decree of nullity is asked for, must be in public. In indictable offences the preliminary inquiry before the magistrate may be in private because, though the court is one of summary jurisdiction, the case is not being "tried, determined, or adjudged" by it. This is a point on which there has been no judicial decision, but the course of excluding the public has been recently resorted to and eminent opinions are in favour of its legality. This course, therefore, might legally be adopted by the magistrate in the HOROS case to which reference has been made. In the hearing of petitions for a decree of nullity of marriage the procedure of the ecclesiastical courts is maintained as far as possible, and the court may hear such a suit *in camera*. In the trial of civil actions the question has never been actually decided. In an action, however, involving questions as to unnatural offences at a school some years ago Mr. Justice DENMAN, sitting in London, excluded the public from his court. A barrister, who claimed admission as a member of the public only, raised a question as to his right to be present, but the point was never, we believe, fought out, and as far as that case has a bearing on the question the public may be excluded by the judge in his discretion from the trial of civil causes. On the general question of the desirability of admitting the public to all legal proceedings, and particularly to those involving accusations of crime, there is something to be said on both sides, and there are also two views on the question of forbidding all reports of cases in which indecency is involved. The persons who gloat over the details of acts of lust given in evidence in courts of law are not generally in attendance for any useful purpose, and their moral tone will not be raised by what they hear. They are, however, not

likely to be young and innocent, for women and children are excluded in the discretion of the judge or magistrate, and those who go to hear filthy cases know, as a rule, the nature of the evidence which is going to be given and can always leave the court if they desire it. It must be remembered, also, that in newspapers circulating in certain classes of society where indecency might be regarded with levity the same paper which describes the offence in many cases brings home to the reader the heavy penalty attaching to it. On the side of public hearing of all cases in open courts there is a strong feeling in British breasts. We are, as a nation, averse from anything that savours of the secret tribunal and private inquiry, and the matter has its practical aspect apart from any prejudice or unreasonable fear of suffering an unfair trial in a British court of justice. The essential advantage of publicity lies in this fact, as it seems to us:—no one can say that he was accused and tried in secret, so that persons who otherwise might have come forward to give evidence of his innocence never even knew that an accusation was laid against him or were wholly ignorant of the evidence upon which the accusation was based. The advantage accruing from publicity may not be conspicuous upon many occasions, but it will be undeniable that it occurs sometimes. All lawyers connected with criminal practice can recall instances where someone, unknown to them and admitted to the court as a member of the public only, has suggested a question or given information at a crucial point in the case which has proved of real importance, eliciting evidence which but for the admission of the public would have been withheld, and without which a wrong and unjust conclusion of the trial must have occurred. Many will recall the action arising some years ago out of the allegation that a young lady had robbed her friend of a valuable pearl ornament. The young lady denied the theft, brought an action for libel, and caused every possible suggestion of dishonesty and moral turpitude to be raised against her accusers. The public were almost wholly in her favour; and the case would quite possibly have resulted in her winning a verdict had not a London tradesman who had read the report of the trial in the newspapers voluntarily come forward and proved conclusively that the plaintiff in the libel case stole the pearls and for her own ends was blackening the characters of innocent persons. It is not easy to accept the proposition that a man is to be wholly without the protection which public trial and public reports of trials afford simply because the accusation against him is of an exceptionally foul description, even though the hearing of such cases *in camera* would relieve parents of the duty of supervising what their children read and would deprive the vicious of an opportunity of listening to a narrative of events which, if they are vicious already, can hardly be said to corrupt them.

The practice satisfactorily employed in nullity suits has no bearing on the matter. The evidence in these cases, when they are heard *in camera*, is generally that of the parties and of medical witnesses as to the sexual capacity of one of the parties. Publicity would be revolting and could serve no useful end, for the circumstances in which someone casually in court could render help to justice in such cases cannot be imagined. In the preliminary hearing

of such cases as the HOROS case the magistrate may exclude the public, including the newspaper reporters, but this is a matter of detail. The main question is whether at the hearing in any court of any case involving indecency the court should be able to exclude the public. Of the desirability of such a change in our legal customs we have grave doubts. We believe that such benefit as may be derived from publicity should be accorded to all, whatever the crimes may be of which they are accused; while in the case of newspapers the law is already strong enough to deal with transgressors whose sense of decency does not sufficiently restrain them.

### Fog and Smoke.

THOSE who live in London stand in little need of being reminded that the town has this season suffered greatly from the effects of fog. Those who live in the country have received but few letters from the metropolis without being informed of the fact, and the French public have been favoured with the most full and circumstantial particulars. The London correspondent of that excellent journal the *Paris Figaro* has informed his readers that on one occasion the fog was so dense in the town that it was with difficulty that the audiences at the theatres could see the actors, and that many people who left home for the evening intending to return found it wiser to spend the night at their clubs or at some neighbouring hotel. The account may perhaps be thought rather highly coloured, and it does not on the face of it appear very accurate, but, on the other hand, the ill-effects of a dense fog are not easily over-estimated: as a rule, the most important of them are minimised and often are entirely ignored. For whether looked at from the mental, the physical, or the economic point of view fogs have no redeeming feature.

No one who has had any personal experience of the question would deny that days spent in darkness or in artificial light have a very depressing effect on the mind. The mental constitution of the inhabitants of a dark city is never cheerful. The fact of existence ceases to be pleasurable. The characteristic peculiarities of the English "spleen" which are always insisted on by our French neighbours become evident even to ourselves. Of the physical discomforts of fog everyone is conscious; while the increase which it causes in the death-rate can be seen in the published tables of mortality. But these fail to show the whole of the harm which is caused, for many hundreds, if not thousands, of Londoners, who have become aware of the fact that fogs cause the bronchitis from which they suffer during every winter in town, now wisely absent themselves, but they carry with them the permanent structural injuries which they received in the past, only saving themselves from premature death by a timely flight. Many people who could comfortably prolong their lives by adopting this course fail to do so, and a still larger number find it impossible to leave their duties; but a sufficient section of the London population leave London in the fog time to interfere with the accuracy of the vital statistics. The economic effects of fog are not difficult to particularise, but the expenditure of money which they cause would not be easy to estimate. Everyone is familiar with the damage done to

wearing apparel by fogs, and with the grave expense due to the increased necessity for the use of artificial light. To every householder in London during fog-time a grave expense is caused, and the only gainers are the gas and electric light companies—the latter of which, it may be parenthetically observed, themselves contribute to no slight extent to the production of black fogs.

Everyone who has had experience of them will readily admit that London fogs are a nuisance which has no redeeming feature, and it is well to understand how they are caused and how they can be prevented or at least how their effects can be mitigated. There is no doubt as to the nature and causation of black fog. The blackness is caused by very fine particles of soot held in suspension in the aqueous vapour of the atmosphere. The particles of soot are unconsumed smoke. Sir WILLIAM RICHMOND, R.A., has estimated that as many as 6000 tons of coal were carried off in suspension in the atmosphere daily from the chimneys of London. We do not know how this estimate was arrived at, nor is such a numerical calculation of much practical value. It is enough for us to know that unconsumed black smoke is given off in large quantity from the London factories; that the volume of it is so immense that it is sometimes carried to great distances into the country, where its appearance and its smell are readily appreciable; and that, unfortunately for the people of London, under certain atmospheric conditions it occasionally remains near the site of its origin, causing a dense pall of darkness to cover the city. The chief factor which contributes to produce this condition is a still and moist air—that is to say, absence of strong wind—exposed to changes of temperature and pressure. What, then, can be done to prevent black fog? Under present conditions obviously no control over the wind can be exercised. The moisture of the London atmosphere cannot be suddenly diminished by human effort, but it may be mentioned that at present two large open spaces in the west of London—Hyde Park and Regent's Park—are insufficiently drained and give off much moisture. The way, and the only way, to prevent black fogs in London is to stop the emission of black smoke.

Black smoke is given off from the chimneys of many private houses and in a virulent degree from a huge number of factories. In the case of the smoke given off from factory chimneys the Public Health (London) Act, 1891, placed the control of the matter under the care of the metropolitan vestries and of the London County Council. At the present time the administration of the Act rests with the metropolitan boroughs, and in case of their neglect with the London County Council. The Public Health Act was an excellent and a far-reaching measure. Its provisions in regard to smoke are stringent, but they have never been properly carried out. If the London local authorities will simply perform the duties which have been entrusted to them they will earn the gratitude of the people. Up to the present time they have not done so, but it is not likely that they will be allowed to remain supine. On Wednesday afternoon last an influential meeting was held at Grosvenor House in connexion with the Coal Smoke Abatement Society, when the important motions, the text of which we have

already published in THE LANCET,<sup>1</sup> were passed unanimously. These resolutions recognise to the full, but without exaggeration, the varied and far-reaching mischief that follows upon the perpetual pouring into the London atmosphere of foul smoke. Sir WILLIAM H. BROADBENT testified to the physical ills that follow upon the respiration of such polluted air; Professor A. H. CHURCH, speaking as chemist to the Royal Academy, proved the damage wrought by coal smoke upon works of art; Sir WILLIAM THISTELTON-DYER, director of Kew Gardens, showed that vegetable life had in coal smoke a bitter enemy; Professor LODGE pointed out that to a great extent the remedy lay in the hands of the public who should insist upon the strict enforcement of laws for the prevention of the escape of coal smoke into the atmosphere; and Sir WILLIAM RICHMOND, R.A., president of the Coal Smoke Abatement Society, proved by facts and figures the work which the society has already done in putting down the evil. Not for the first time we bring the efforts of this young and energetic society to the notice of our readers. It is doing good service to the public health.

## Annotations.

"Ne quid nlmis."

### MR. LONG ON THE METROPOLITAN WATER-SUPPLY.

ON Monday last, Nov. 18th, the Hon. W. F. D. Smith gave a dinner to the metropolitan Unionist leaders and to the executive committee of the Metropolitan Division of the National Union of Conservative and Constitutional Associations. The occasion offered Mr. Long an opportunity of making a speech on the London water-supply, for the matter being specially referred to by his host, Mr. Long's reply to the toast of his health was devoted to the subject. Mr. Long stated that he would bring in a Bill which, if passed, would constitute a new Authority which would undertake the administration of the water-supply of the metropolis and would purchase the business of the existing companies. It does not appear that he brought forward any arguments in favour or his purchase scheme. It will be interesting to those who are well informed as to the ins and outs of this complicated question—as every reader of THE LANCET may be presumed to be—to learn what form Mr. Long's proposals will take exactly.

### LEAD-POISONING IN THE POTTERIES.

As we pointed out briefly in an annotation in THE LANCET of Nov. 16th, p. 1354, the new special rules proposed by the Home Office for further protecting the lives and health of the workpeople in the pottery trade have met with a varying fate in arbitration. We may now outline the practical effect of the decision of Lord James of Hereford. All the purely precautionary rules (with the exception of Rule VI., which would oblige adult male workers to submit to a monthly medical examination, and gives the certifying surgeon in their case the same suspending power which he already possesses in those of women and young persons) stand approved, and in some instances amended in a more stringent sense. On the other hand, the "process" Rules—the famous Rules I. and II. round which the battle has so long raged—are by the decision of Lord James of Hereford quietly

shelved for 18 months at least. Manufacturers remain, consequently, for the present absolutely free from official interference as far as process is concerned; the use of raw lead is still permitted them, and the percentage of soluble lead yielded by their glazes is a matter for their own consideration and consciences. For the time at least their plea that the rules were unworkable must be held to have triumphed; and the Home Office manifestly failed to establish their case despite the strong representations contained in the reports of their chosen experts Dr. T. Oliver and Dr. T. E. Thorpe. Lord James of Hereford felt that he was not justified in deciding that regulations of a novel and drastic character should be forced upon an industry loudly protesting its inability to comply with them. He had before him the official admission that Rule II., in demanding so low a standard of solubility as 2 per cent., "asked too much," and foreign expert evidence which was tolerably satisfactory as to the possibility of exclusive fritting but gave a very uncertain sound on the solubility question, and the statistics showing a remarkable diminution in the cases of lead-poisoning from the time that the special rules of 1898 first introduced the compulsory use of fans for the removal of poisonous dust, the wearing of overalls, and better facilities for washing. But while he declared his determination not to interfere hastily with trade he also made it abundantly clear that he considered the questions of life and health involved in the inquiry to be his prime concern. He stated quite plainly that the merely palliative measures of fans and cleaner floors, on which the manufacturers' counsel insisted as remedies of themselves sufficient to stamp out plumbism, did not satisfy him though he was prepared to grant a further trial of their efficiency, and he urged upon employers the duty not only of doing everything to mitigate their workpeople's danger by improvement of buildings and strict conformity to rule, but of engaging in fresh researches with a view to reduce the quantity of raw lead at present in use and to attain in glazes a standard of solubility at least as low as that suggested by the Home Office. Lord James thus admits the desirability of reducing the amount of soluble or raw lead. The lead question cannot therefore be considered dead. So much for the rules opposed by the masters. Rule VI. was temporarily withdrawn likewise in deference to the objections of the men. Evidence tendered by representatives of union and non-union men alike gave proof of the fact that to the average working potter the terrors of suspension from work loom even larger than those of plumbism. The medical advantages of suspension being undoubted it is to be hoped that Lord James's earnest appeal in this connexion to the manufacturers to take upon themselves in some form the burden of the Workmen's Compensation Act will meet with a generous response, for in that case the men are ready to withdraw their objection. It is not the examination they dread, but the loss of their means of livelihood that may result from it.

### ARE BURNING SHALE HEAPS A NUISANCE?

It is not surprising to find that a burning shale heap has been ruled a nuisance considering that it gives off sulphurous and other gases detrimental to health, especially when the heap is in close proximity to dwelling-houses. Even in the country where quick diffusion is possible the effects may be noticed and are disgusting to passers-by. The Corporation of Oldham have recently obtained an injunction against a colliery company who deposited a large heap of shale in a thickly-populated part of the town. The heap has been on fire for several years, and the only way to get rid of it, so it is urged, is by allowing it to burn out. The case was heard in the Chancery Court of Lancashire at Manchester before Vice-Chancellor Hall, K.C., and the hearing occupied 10 days.

<sup>1</sup> THE LANCET, Nov. 15th, 1901, p. 1354.

Many witnesses were called on both sides, a great many for the colliery company. For the defence it was asserted that the fumes and smell were a cure for diarrhoea in infants and whooping-cough, but the Vice-Chancellor, in giving judgment, thought otherwise, and pointed out that a large number of witnesses were called who did not simply drive through the district, but lived and moved in it, and they said that the smell caused them to experience nausea and depression; that it obliged them to get up in the night to close their windows, and that it caused them to vomit in the morning. These people desired to rid themselves of something which caused sensible discomfort. The statement which had been made that the gases given off by the burning shale were healthy and appetising was absurd, and the defendants must have been very hard up for an argument to press it in court. There would be judgment for a perpetual injunction to restrain the defendants, their servants, and agents, from permitting any fumes, vapours, or gases to be emitted or to escape from their land to the nuisance or injury of the inhabitants of the county borough of Oldham or the other neighbourhoods of the said land, and the defendants must pay the costs of the action. We should have thought that it would be worth the while of the colliery owners to investigate the subject with a view not only of mitigating a nuisance but of utilising the definite calorific value which must necessarily exist in shale which is combustible.

#### MOTOR-CARS AND THE PUBLIC SAFETY.

HOWEVER strongly in favour of increased facilities of locomotion we may be the fact cannot be ignored that our present system of highways is not adapted for high speed. The present state of affairs brought about by the introduction of the motor-car is obviously a transitional one. Probably the horse will never be banished, but there can be no doubt that the motor-car is going to be something more than a mere passing fad or fashion. It threatens to compete even with locomotion by means of railways, and not only on economical considerations but also from the points of view of convenience and speed. The vigorous action on the part of some of our police authorities has naturally been strongly resented by motor-car enthusiasts, and no doubt in a great many cases this action has been unduly officious and vexatious. Still, it must be borne in mind that our highways are not adapted for high speed so long as so many sorts and conditions of locomotion exist. The pedestrian, the horse, and even the much-abused cyclist, are entitled to consideration. Some day, perhaps, motor-cars will have tracks of their own, each family will be its own railway company, and the "iron steed" as we now know it will be a mere historic curiosity. In justice, however, to a great number of persons who find pleasure and health in driving and riding on motor-cars it should be stated that many, at any rate, are desirous that the public safety should not be jeopardised, and we are quite sure that the rules drawn up by the Automobile Club protecting alike the motor-car traveller and the rest of the public, the former from abuse and the latter from risk, will everywhere be regarded with approval. The scorching cyclist was offensively in evidence at one time, but public opinion has very wisely hounded him down so that now he is quite the exception. In the meantime we do not see what reasonable objection can be raised to the motor-car on the road so long as it is kept within a speed consistent with public safety and so long as the driver evinces a consideration for others. As anyone participating in the annual meet of motor-cars which is held on the anniversary of the passing of the Locomotives on Highways Act soon discovers and appreciates, the motor-car may be controlled with marvellous precision. It can be steered and turned round in a much shorter space than can a horse and carriage,

while it can be pulled up with greater certainty. Again, as shown by the events of the fifth anniversary, which was held on Nov. 16th, some 200 motor-cars can accomplish a journey of nearly a hundred miles without a breakdown or hitch of any practical importance or an accident of a serious character. On this occasion the largest number of motor vehicles that has ever assembled in this country was in readiness for the journey drawn up in single file in the Horse Guards Avenue, Whitehall, S.W. Before the actual start was made each driver was presented with a set of rules and regulations drawn up under the auspices of the Automobile Club which were to guide him through the day. Prominently among these were rules as to speed. It was laid down that in towns and villages the speed should be reduced to that of ordinary horse-drawn traffic. Further, the tour was divided into stages, and anyone completing these stages in less than the minimum time allowed was to be regarded as committing a serious breach of the club's rules. The minimum time was instituted to prevent a wilful and flagrant defiance of the law. The Organising Committee pleaded for hearty co-operation in making the run an event calculated to add to the popularity of the new form of locomotion. As far as could be ascertained the rules laid down were in the main carefully adhered to, and the result was a very successful tour, harassing to no one and enjoyed by all. Judging from the motor-cars participating in this tour it cannot be said that any very marked advance has been made during the past year in regard to improved methods of propulsion; the old drawbacks—noise, vibration, and smell were still in evidence. By far the majority of the motor-cars were driven by petrol, some by steam, and a few by electricity. The first method has the advantage that it enables a great distance to be covered with but a small weight or bulk of fuel, while the second method involves stopping to take in a water-supply, and the third method is apt to give out when no means exist for replenishing the power. Some day perhaps liquid air will be cheap and then the ideal motor-car will be speedily realised.

#### THE ADVISORY BOARD FOR THE SUPERVISION OF THE ARMY MEDICAL SERVICES.

THE Secretary of State for War has selected the following as the chairman, vice-chairman, and members of the Advisory Board for the supervision of the Army Medical Services:—

*Chairman.*—The Director-General Army Medical Service, Surgeon-General William Taylor, C.B., A.M.S., M.D., C.M.

*Vice-Chairman.*—The Deputy-Director-General, Surgeon-General (temporary) Alfred Henry Keogh, C.B., A.M.S., M.D.

*Members.*—Officer R.A.M.C. (Expert in Sanitation), Major William Grant Macpherson, R.A.M.C., M.A., M.B., C.M., D.Ph. Camb.; Officer R.A.M.C. (Expert in Tropical Diseases), Lieutenant-Colonel David Bruce, R.A.M.C., M.D., C.M.

*Civilian Members.*—Dr. Charles Bent Ball (Ireland), M.D., F.R.C.S. Irel., F.R.C.S. Eng.; Alfred Downing Fripp, Esq., C.B., C.V.O., F.R.C.S., &c.; Dr. James Galloway, (Scotland), M.A., M.D., F.R.C.S., F.R.C.P.; Dr. Edwin Cooper Perry, M.A., M.D., F.R.C.P.; Sir Frederick Treves, C.B., K.C.V.O., F.R.C.S.

*Representative of the War Office.*—Colonel W. A. Dunne, C.B., Assistant Quartermaster-General.

The Representative of the India Office and the Matron-in-Chief are to be nominated hereafter.

It remains to be seen as a matter of practical experience how an Advisory Board of this size and mixed character will work for the good of the public service, but we do not see that it need necessarily interfere with the status or lessen the influence of the Director-General, who will not only act as the chairman of such Advisory Board, but, what is much more important, according to the newly constituted scheme of War

Office administration will in future occupy a place on the War Office Council and Army Board and will be a recognised official on the head-quarters staff with direct access to the Secretary of State for War. He will have the civil medical profession at his back in any measures which he may have to put forward or in any representations which he may have to make regarding the sanitary and medical requirements of the army. It should therefore strengthen his position. It is rather in regard to the suitability of the machinery and its workability and as to the technical knowledge, experience, and special business qualifications which the civil members of the Advisory Board may bring to the task that we entertain misgivings. It cannot be said that the results of our experience of large mixed boards or committees are altogether satisfactory where directness of aim as well as promptitude and clearness of decision in the practical conduct of public business are concerned. Nor is it easy to fix the responsibility of failure or neglect on anyone under such circumstances. While we heartily sympathise with any attempt to secure the coöperation of the military and civil elements of the profession in carrying on the public health and medical work of the country, we cannot help feeling that the provision of so many boards and examinations are not likely to furnish the simplest and most efficient method of getting what is wanted in the way of War Office, or army medical, reform. It is greatly to be regretted, as we have urged from the first, that when Mr. Brodrick took the reorganisation of the Army Medical Service in hand he did not nominate some medical officer of high rank, experience, and recognised ability belonging to that service to act as a member of his committee. To refer to only two points—and there are others—no new scheme for the Army Medical Service is likely to prove attractive which requires so many examinations to be passed and which interferes or does away with the right to retire on the present terms after 20 years' service.

#### "THE VIOLET CURE."

A PARAGRAPH has been going the round of the press, describing how a tumour of a tonsil, the diagnosis of which was "made certain by microscopic examination of a small portion removed," was "cured" by the application of a number of fomentations made from an infusion of green violet leaves. The patient, in gratitude for her recovery, has had printed some leaflets describing the mode of preparation and application of this infusion. We can fully enter into her feelings. She had suffered greatly for four months from a throat affection which was relieved by no treatment. She grew steadily worse and her life was despaired of. The diagnosis of "cancer" seemed to be confirmed by microscopic examination. Within a week of the application of infusions of violet leaves much of the swelling had disappeared and all pain had ceased, and in a fortnight the "cancer" of the tonsil had entirely disappeared. Overjoyed at her own recovery she hastens to make known to other sufferers the marvellous and simple method of treatment, ignorant that already many hopes of recovery have been founded on similar unsubstantial basis. The whole importance of the story depends on the accuracy of the diagnosis of epithelioma. All who are familiar with the clinical signs of a malignant disease of the tonsil can easily believe that it is not difficult to mistake deep-seated inflammation of the region for a malignant growth. As to the microscopic examination, the arrangement of the epithelium of a normal tonsil may easily resemble the epithelial down-growths of an epithelioma, and the resemblance is still more striking when chronic inflammation is present. The history of the case points to a very natural error of diagnosis. The violet leaf, by the way, figures not infrequently among

the recipes of the old Anglo-Norman writers whose manuscripts are preserved in the British Museum. In modern pharmacopœias the violet is noted for its cathartic and emetic qualities, or, to speak more accurately, the *Viola tricolor*, or pansy, possesses these useful attributes. The dog violet also is vaguely recorded in an old edition of Balfour's "Botany" (1854) to have been at some time or other prescribed for "skin disease." In the age of the Plantagenet monkish medical writers treated most diseases with the violet, whether dog, pansy, or sweet March they do not state. Intermingled with a multiplicity of other ingredients the modest flower was used to treat "a streyness of the hert," an illness akin, we may suppose, to dyspepsia. It was said to be good also for the stone, and if a broken fragment of bone had to be expelled from the flesh the violet, with other herbs, was considered most useful. Into these old medical mixtures the violet was always introduced in "a good handful," and we are at liberty to suppose that its pleasant perfume, in an age when contrasts were much insisted on, was supposed to work wonders against noisome suppurative ailments. The Anglo-Norman writer of Manuscript B in Henslow's valuable account of early English recipes gravely mentions that a decoction of violet leaves, in conjunction with several other herbs, will enable a sufferer to slay the worm in a sore after its presence has been duly discovered by the all-night application of a piece of new cheese. The violet leaf, according to the same forgotten scribe, whom Professor Skeat pronounces to have been a Norman-Kentish man unfamiliar with English, is useful in the process of wound-healing, but the mediæval authorities never thought of "curing canker" by means of violets. Nor do we think that such a method of therapy will find a place in twentieth-century pharmacology.

#### AN OUTBREAK OF NOMA.

NOMA is now seldom observed. Dr. W. H. Allchin states that during 13 years only six cases were seen in 13,000 patients admitted to the Hospital for Sick Children, Great Ormond-street. It occurs in children suffering from acute disease when the sanitary condition is bad. Osler claims that at least one-half the cases occur during convalescence from measles. The *American Journal of the Medical Sciences* for November contains a report by Dr. G. Blumer and Dr. A. MacFarlane of a remarkable outbreak which occurred in April, 1900, at the Albany Orphan Asylum, an institution which accommodates 450 children varying in age from two to 15 years. An outbreak of measles of a severe type occurred and 173 children were affected. 32 had complications: 12 had pneumonia, five had pneumonia and noma, 11 had noma without other complication, and four had lesions which were considered incipient noma but in which the process was stopped by cauterisation. Of the 12 cases of pneumonia two were fatal, the five cases of pneumonia and noma were all fatal, and two of the uncomplicated cases of noma were fatal. Of the 16 cases of noma the mouth alone was affected in four, the mouth and other parts (the ear and vulva) in three cases, the vulva alone in seven, the vulva and other parts in seven, the rectum alone in three, and the rectum and other parts in five. Of the fatal cases of noma the mouth was involved in three and the rectum in four; pneumonia was the immediate cause of death in five of these cases. The ages of the affected children ranged from three to 12 years. No predisposing cause of the disease could be found in the surroundings; the general hygienic and dietetic conditions were excellent, and the average annual mortality of the institution was only 19.4 per 1000. Although there were almost as many cases of measles in boys as in girls, all the cases of noma developed in the girls' dormitory except two in boys who were in the infirmary at the same time as

were girls suffering from noma. The first case was detected by the putrid odour from a patient with noma of the vulva. The process rapidly extended to the rectum with destruction of the intermediate tissues. The other cases occurred in this dormitory; contagion by soap or towels was possible. Complete isolation stopped the outbreak. The disease began with slight ulceration and a surrounding area of intense hardness. This quickly became dark and broke down. The process in some cases spread with alarming rapidity; the tissue appeared to necrose *en masse*. When the destruction was not too extensive the application of Paquelin's cautery under chloroform seemed to arrest the gangrene. Nine cases were examined bacteriologically. Only one organism was constantly present in cover-slip preparations—a leptothrix which averaged  $\frac{1}{2}\mu$  in breadth and varied from five to  $20\mu$  in length. The short forms were usually bent, the long ones curled or wavy. In older medical literature accounts of outbreaks of noma in institutions may be found. Savard saw an outbreak at the Hôtel Dieu, Paris, in 1699, and Martin has described one at the Charity Hospital of Lyons in 1796. The contagiousness of noma has been denied, but Loschner observed in the Lazarus Children's Hospital, Prague, the repeated recurrence of noma in one room.

#### THE DIAGNOSIS OF SMALL-POX.

WE have already drawn attention to the difficulties which may occur in the diagnosis of small-pox.<sup>1</sup> An early diagnosis is of the utmost importance in order to prevent infection, but so long a time has elapsed since the last serious outbreak in London that many practitioners have had no experience of the disease, thus mistakes in diagnosis are likely to occur. Moreover, small-pox may be so modified by previous vaccination that its recognition is not easy. In order to overcome these difficulties the St. Pancras Borough Council have adopted the plan of appointing a medical man as a medical referee in each ward, to be called in by the practitioner in doubtful cases of small-pox or suspicious eruptions or symptoms, the Council having previously resolved that after Oct. 5th chicken-pox should also be a notifiable disease within the borough. A medical referee is not to be prohibited from making a clinical examination beyond the ward for which he is appointed, provided that the patient is within the borough of St. Pancras and that a medical referee sends to the medical officer of health an additional or second notification form, or similar certificate, filled in and signed by the medical referee and countersigned by the medical practitioner calling him in. Medical practitioners are also requested to state upon their certificates both of chicken-pox and small-pox the number, approximate collective area, and distinctness of foveation of vaccination marks existing on the patient. We consider this departure an excellent one, and it might with great advantage be followed by the councils of other metropolitan boroughs.

#### LESIONS OF THE SPINAL CORD AS REGARDS PROGNOSIS AND TREATMENT.

AN interesting discussion on Traumatic Lesions of the Spinal Cord as regards Prognosis and Treatment took place before the New York Neurological Society and is reported in the *Journal of the American Medical Association* of Nov. 2nd, 1901. In opening the discussion Dr. George Walton of Boston stated that in complete transverse crushing of the spinal cord there were "total flaccid paralysis below the seat of lesion (Bastian)" and loss of the knee-jerks. In partial crushing there was irregular paresis more or less in the lower limbs, while anæsthesia

was incomplete in the affected members, whereas in complete crushing anæsthesia was complete. Retention of the urine was the rule in all varieties of fracture of the spinal cord. The skin below the seat of lesion grew hot (vaso-dilatation), but sweating was not a common symptom. The prognosis varied. In cases of fracture of the cervical portion of the cord the prognosis was very grave and death usually resulted in a few days if no operation had been performed. In dorsal or lumbar fracture the prognosis was better but was still grave, "the fatality in non-operation cases being about 80 per cent." Laminectomy was thought to be dangerous by reason of the weakening of the spinal column which it produced, but this was not so. "Owing to the decided limitation of our diagnostic ability," said Dr. Walton, "it was well to resort promptly to operation in all cases except the moribund and those with great displacement and give the patient the benefit of the doubt." The dural theca should be opened because an œdema of the pia arachnoid was apt to exist and would be relieved by such a procedure, but the chief reason was the opportunity it afforded for inspecting the spinal cord. Drainage was not necessary, and the theca should be sutured at the close of the operation. Professor Charles Dana believed that operation was safe; he had not met with a fatal case in six operations. If clinical observation showed that the spinal cord was undoubtedly crushed he thought operation need not be advised. Dr. Edward Fisher mentioned two cases of fracture of the spinal cord in which cocaine anæsthesia was employed because of fear to give the patient a general anæsthetic. The operation was concluded without any more shock than in general anæsthesia. Dr. Graeme Hammond said that in mild cases operation was very successful and cited an instance where complete and permanent cure followed. He would also operate in hopeless cases because nothing else could be done. Dr. Sachs agreed with the previous speaker as regards the importance and necessity of operation. Dr. George Brewer mentioned a case of a woman who had sustained injury to the cord and spinal column in which a fragment or spicule of bone was embedded in the spinal cord and where complete recovery followed laminectomy and removal of the fragment of bone.

#### VEXATIOUS LITIGATION.

DR. R. A. G. F. DOWDALL, surgeon at Mountjoy Prison, Dublin, is to be congratulated on the result of an action brought against him by the wife of one of the prison officials whom he attended in his official capacity, and the Recorder of Dublin is also to be congratulated on having expressed himself, in giving his decision, in terms which may tend to discourage in Dublin, at all events, similar actions against medical men. The wife of John O'Reilly, prison teacher and librarian at the prison, fell downstairs at about 11 o'clock P.M. on Feb. 22nd and injured her shoulder, and on the following morning called in Dr. Dowdall. The arm was too much swollen for any satisfactory diagnosis, and he recommended her to go to the Mater Misericordiæ Hospital. This she declined to do and he accordingly prescribed suitable treatment and waited. During the next three weeks he attended her, expressing the opinion that she was suffering from rupture of the muscles and from rheumatism. Finally she went to the hospital, as Dr. Dowdall had originally advised her to do, and there it was discovered that the shoulder was dislocated, while the Roentgen rays further revealed an impacted fracture of the neck of the bone in addition to the dislocation. Suitable treatment and operation followed, and subsequently Mrs. O'Reilly and her husband brought an action against Dr. Dowdall on the ground that his negligence had caused her undue suffering. The evidence, however, called by the plaintiffs did not bear

<sup>1</sup> THE LANCET, Oct. 12th, 1901, p. 988.

out their contention. Their own witness, the surgeon who made the diagnosis at the hospital and operated on the shoulder, at once stated in cross-examination that up to the time when the case came under his charge any other treatment than that adopted by Dr. Dowdall would have been out of the question, and that correct diagnosis when Dr. Dowdall was first called in, on the morning after the accident, must have been extremely difficult. For the defence Dr. Dowdall told his own story and was supported in every particular by Dr. Thomas Myles, President of the Royal College of Surgeons in Ireland. In giving his decision, with emphasis, for the defendant the Recorder pointed out that medical practitioners can only be held liable for mistakes caused by negligence and not for errors of judgment, while he dwelt on the fact that the plaintiff had been advised to go to the hospital and had refused to do so. He also pointed out that she was attended free of charge in consequence of her husband's official position, and said that in his opinion the poorer classes in the city of Dublin were so absolutely pampered with medical assistance that anything like grace or gratitude to the medical profession was absolutely gone from them. This is a state of affairs not peculiar to Dublin, but that an official in a Government institution such as a prison should bring an action against the surgeon officially appointed to attend its inmates is unusual, and in any case highly undesirable. Brought without good cause and in circumstances which foredoomed it to failure, such an action strikes us as vexatious and inconsistent with the discipline necessary to the proper conduct of such institutions.

#### TICK FEVER.

IF the *Australasian Medical Gazette* of September Dr. Frank Tidswell, principal assistant medical officer to the Government of New South Wales, describes an experimental inquiry into the disease of cattle known as "tick fever" or "red water." The pathology of this disease closely resembles that of the malarial fevers of man and is therefore of considerable interest. Tick fever is widely distributed throughout the world and occurs in Australia, Texas, the Argentine Republic, South Africa, Turkey, Italy, France, Finland, and probably in other places. It is communicated to cattle by insects known as "ticks." They are hatched from eggs laid on the ground. The larvæ are no bigger than pins' heads, have six legs, are very active, and swarm about the grass endeavouring to attach themselves to cattle. They bore into the skin, where they go through several developmental stages, becoming eight-legged and sexually mature. After about three weeks they fall to the grass and lay eggs and so complete the cycle of development. Apart from "tick fever" the incessant onslaught of ticks on cattle affects the health and may produce serious and even fatal illness. Ragged ulcers form and may become fly-blown and gangrenous. Secondary effects are produced on the animal's health by the impeding of movements and the interfering with the search for food and by blood-poisoning. But the important consequence is tick fever. It begins from 10 to 20 days after the exposure of the cattle to ticks and lasts from eight to 15 days, during which the temperature varies between 103° and 107° F. The animals become dull and cease to move about and when very ill lie down. After six or seven days they are anæmic. The fever is due to a hæmatozoon, *pyrosoma bigeminum*, which is inoculated into cattle by ticks. It is found in the red corpuscles usually in the form of a bigeminate or pear-shaped organism. The red corpuscles are destroyed and may be reduced in 24 hours from 7,000,000 or 8,000,000 to 1,000,000 per cubic millimetre. The liberation of the hæmoglobin may produce hæmoglobinuria ("red water"), but this symptom is not, as is supposed, common. Young ticks hatched from females kept in glass boxes have

produced the fever, but the experimental injection of emulsions of eggs or of young ticks has failed to do so. Hence the inference that the parasite undergoes within the ticks some evolutionary process previously to acquiring infective qualities for cattle.

#### THE MEDICAL PROFESSION AND THE PUBLIC VACCINATOR.

WE are requested by the Association of Public Vaccinators of England and Wales to publish the following statement:—

The Organising Secretary of the Association of Public Vaccinators on his own initiative inserted the notice in the *Standard* of which you complain.

At a meeting of the Executive Committee held on Nov. 20th his action and the notice were considered. It appears to the committee that the Secretary's action was based upon a desire to instruct the public as to the facilities for revaccination provided by law. It strongly objects to the interpretation which you place upon the notice—i.e., of serving the purposes of advertisement and misrepresentation.

The Organising Secretary is a layman and the last person in the world to desire the encouragement of advertisement, but he felt that it was necessary to give instruction to the public, because, from facts within his own knowledge, many persons were not seeking the operation on account of the expense, and in many cases the guardians have neglected to publish the information to which the public are entitled at their hands.

The Executive Committee disclaims any idea of the communication to the *Standard* being anything in the nature either of a proclamation or circular. It was simply a notice to the public giving them information true in substance and in fact. The Executive Committee admits that if the third paragraph had been submitted to it the wording would not have been precisely the same, and would probably not have raised any adverse comment. It regrets that a strained interpretation should have been placed upon what was honestly intended to be a perfectly innocent communication to the press in the public interests.

We publish this somewhat lame explanation of how an indiscreet *communiqué* to the public press came to be sent out. We wish to point out that the interpretation put upon the circular was not put upon it by us alone. We endorsed the views of many of our readers and apparently have expressed those of the Executive Committee. We recommend the Executive Committee of the Association of Public Vaccinators of England and Wales not to allow a lay secretary to write to the press in their name, even though he "is the last person in the world to desire the encouragement of advertisement."

#### THE METROPOLITAN WATER-SUPPLY.

THE report on the condition of the Metropolitan water-supply during the month of September has recently been issued by the Water Examiner to the Local Government Board. The most interesting thing in the report is, perhaps, the information which it gives as to what appears to be a hardship inflicted on some of the old customers of the New River Company. The hardship consists in the fact that they are no longer supplied entirely with water purified by that company, but by a mixture of New River water with some supplied by two other companies. The result of the mixture is that the customers of this old-established business now have water which is of a quality inferior to that to which they have been long accustomed and which has not been prepared under the careful supervision of the officials of the company. The reference to the falling off in the quality of the New River Company's water is thus referred to in the report of Dr. T. E. Thorpe, the analyst to the Local Government Board. "With regard to the Lee-derived waters the New River Company's water on a few occasions was found to contain somewhat more organic matter than usual, but from information supplied by the secretary of the company it appears that these abnormal results were due to an admixture of filtered Thames water, this being necessary in connexion with the arrangements whereby the East London Company has been assisted during the past month." On reference to the table included in the report which gives the "details of the Metropolitan water-supply" it is seen that the adventitious water which contaminated the New River water was supplied by the Grand Junction and the West Middlesex companies. Dr. Thorpe, it may be suggested, hardly does justice to the sources of supply of the New

River Company in indiscriminately applying the term "Lee derived" to them, for although of the two springs whose water Myddelton originally undertook to convey to London, one, that of Amwell, has ceased its supply and the other, that of Chadwell, has steadily diminished in quantity, it must be remembered that the wells near the New River enormously increase the bulk of the "Lee-derived" water which it conducts. During the month under review for example, the daily average amount of water derived from the Lee was 18,623,920 gallons, and that from springs and wells was but little less—namely, 16,328,388 gallons. The water supplied during the month by the East London Waterworks Company was derived from many sources. The average daily supply was 44,329,000 gallons and this amount was obtained as follows: from the Lee and the storage reservoirs, 9,928,264 gallons; from the Thames, 19,317,000 gallons; from wells, 11,799,000 gallons; from "wells per New River Company," 1,740,736 gallons; and from Hanworth springs, 1,544,000 gallons. The "springs" are situated under a layer of London clay and the water is mixed with some of the Thames-derived water at Hanworth. Some of the Thames-derived water was obtained from the Southwark and Vauxhall Company—the average daily amount "passed on" by this company was 10,404,000 gallons, and from the 1st to the 18th of the month the New River, the Grand Junction, and the West Middlesex companies aided in affording the supply. This consummation is the result of the carrying out of the intercommunication scheme recommended in the first report of Lord Llandaff's Commission on the lines of which an Act of Parliament was immediately passed in spite of the opposition of the majority of the London County Council. The greater part of the report presents no features of remarkable interest. The Thames water was in good condition during the month; its height varied from three inches above to six inches below the average summer level. The rainfall at Molesey amounted to one inch. The customers of the Lambeth and of the West Middlesex companies are credited with having taken more, and those of the other companies with having taken less, water per head than during the corresponding month of last year. The water supplied by the Lambeth Company exhibited the deepest average tint of brown. A sample drawn from the mains of the West Middlesex Company contained a higher proportion of organic carbon than that found in any other supply examined by Dr. Thorpe. In the case of the metropolitan companies in one only is the report invariably satisfactory. "The Kent Company's deep well water was as usual clear and of excellent quality." There are, we believe, still living experts who profess to prefer river water. It may be hoped that soon this opinion may be confined to experts.

#### THE CONTROL OF MILK-SUPPLIES.

EVIDENCE daily accrues that the supply of milk is not so effectively under control as in the interests of the health of the community it should be. Last week we pointed out in a leading article that some better machinery for excluding infective milk from London is obviously needed in the face of the facts then quoted in regard to the spread of scarlet fever through an infected milk-supply. That this is so is abundantly clear from the fact that it is not contrary to law to supply a particular milk in other districts when the supply has been stopped in one district. It would certainly be an advantage if the milk taken under the Food and Drugs Act could be examined bacteriologically as well as in regard to its quality, but we fear that such a course would entail more work upon the public analyst than he is able to do and many analysts are not competent to do it. Of course, this additional procedure would add considerably to the expense of analysis. It is often said that they do things better in America than we do in this country. This is certainly true

in the case of the method employed in Chicago for preventing the adulteration of the milk-supply there. By a recent plan pursued by the Department of Public Health, an improvement of nearly 24 per cent. in the quality of the milk-supply of that city has been effected. This has been done by furnishing to the public press the names and addresses of delinquent milk-dealers—a method which vividly recalls that of the Founder of this journal when he published the names and addresses of unscrupulous people in THE LANCET. We wish that the method could have been revived in this country, as was suggested, in the new Food and Drugs Act, but worse counsels prevailed. Yet in Chicago it is found that the publication of the names and addresses of fraudulent tradesmen regularly in daily papers has a more deterrent effect than have prosecutions and fines. Again, any milk of a specific gravity of 1027 or giving the test reaction for formalin was forthwith carried to, and emptied into, the nearest sewer opening. As a result, "embalmed" milk was no longer found at the receiving depôts and very few cans of watered milk were received. The policy may appear to be somewhat drastic, but it is certainly fully justified in the case of milk if in regard to no other article of food.

#### THE ANTITOXIN TREATMENT OF DIPHTHERIA AT LEICESTER.

THE Leicester Corporation has undertaken to supply diphtheria antitoxin free of charge and the effect upon the diphtheria mortality has been most gratifying. The use of antitoxin vexes the soul of Mr. J. T. Biggs, the well-known anti-vaccinationist, and he has published a long letter in the *Weekly Times and Echo* of Sept. 22nd and in the *Leicester Daily Mercury* of Nov. 2nd to prove that antitoxin, or the introduction of sewers, or the enforcement of vaccination, (we are not quite sure which) has increased the number of cases of diphtheria and has also increased the case fatality. Here are the figures as given by Mr. Biggs for the years 1890 to 1900 inclusive:—

Year.	Cases.	Deaths.	Fatality, per cent.	Total number of cases.	Total number of deaths.	Annual average fatality, per cent.
1890	75	11	14.6	412	Prior to antitoxin 66 [sic]	16.7
1891	65	14	21.5			
1892	67	10	14.9			
1893	139	20	14.4			
1894	66	12	18.1			
1895	75	36	48.0	1598	Antitoxin period 447	32.8
1896	170	53	31.2			
1897	229	73	31.9			
1898	218	63	28.9			
1899	906	222	24.5			
1900	1452	316	21.7			

According to these figures the use of antitoxin commenced in 1895 and the case fatality rose from 18.1 in 1894 to 48 per cent. in 1895. But, as Mr. Biggs says in another table, antitoxin was "more completely practised," and the fatality case-rate, which in 1895 was 48 per cent., steadily declined, except that in 1897 it was 31.9 as against 31.2 in 1896, to 21.7 in 1900. Mr. Biggs quotes various passages, for most of which he does not give the references, to show that antitoxin does not influence the course of the disease in a favourable way as regards diphtheria. We can give him some figures and references to show exactly the opposite, and in doing so we give him an opportunity of verifying our figures. The Diphtheria Committee of the Clinical Society of London has published a report upon 832 cases.

Of these 199 were rejected because the committee either thought that the evidence of diphtheria was not sufficiently strong or because the amount of antitoxin administered was not stated in normal units. There were thus 633 cases available for estimation. The total number of deaths was 124, or 19.5 per cent., as opposed to a mortality of 29.6 per cent. in a control series compiled from the records of the general hospitals before the introduction of antitoxin. Buchwald in the *Münchener Medizinische Wochenschrift*, 1898, No. 14, says that of 563 cases treated without antitoxin, 57.72 per cent. died; of 311 treated with it, 28.93 per cent. died. J. E. Walsh in the *New York Medical Journal*, June 18th, 1898, published the following figures. In 1895-1896 there were treated in the District of Columbia: cases with antitoxin, 174; deaths, 23; mortality, 13.2 per cent.; cases without antitoxin, 152; deaths, 53; mortality, 34.9 per cent. In 1896-1897: cases with antitoxin, 285; deaths, 21; mortality, 7.3 per cent.; cases without antitoxin, 335; deaths, 89; mortality, 26.6 per cent. Unkindest cut of all, one Biggs, not J. T., but H.—undoubtedly Hermann, the well-known sanitarian of New York—has read a paper before the Society of the Alumni of the Bellevue Hospital in which he said: "Since the introduction of antitoxin treatment the mortality of diphtheria is reduced to one-half." We also refer Mr. J. T. Biggs to various articles and figures which have from time to time appeared in our columns; notably to a paper by Mr. J. R. Russell and Mr. Arthur Maude, which appeared in THE LANCET of Nov. 7th, 1896, p. 1298, and contained a record of 17 cases without a death, 15 of which were treated with antitoxin; and also to one by Dr. Louis Cobbett, which appeared in THE LANCET of Dec. 3rd, 1898, p. 1457. We note that Mr. Biggs wisely says: "I enter upon the pathological aspects of the question with fear and trembling." Mr. Biggs may well do so, for he goes on: "In a series of experiments by Dr. Whitbridge Williams in at least 75 per cent. of healthy persons the bacillus [*sic*] of typhoid, tetanus, diphtheria, and puerperal fever were found. The fact is these minute creatures are benign and do not become malign until affected by the morbid poisons of these animal serums." Does this mean that everyone who becomes ill from typhoid fever, tetanus, diphtheria, or puerperal fever has been injected with antitoxin? If not, what does it mean? We adjure the Leicester Corporation to continue to supply antitoxin serum, at any rate until some one furnishes them with the ghost of an argument against its efficacy. That Mr. Biggs has not done this is sufficiently proved by Dr. Horron Davies's admirable reply to Mr. Biggs in the *Leicester Post* of Nov. 16th.

#### THE JOURNAL OF OBSTETRICS AND GYNÆCOLOGY OF THE BRITISH EMPIRE PUBLISHING COMPANY, LIMITED.

THE first number of the *British Journal of Midwifery and Diseases of Women*, a periodical to be devoted to the consideration of the obstetrics and gynecology of the British Empire, will make its appearance with the new year. The editor-in-chief will be Mr. Alban Doran, with whom will be associated Dr. Berry Hart, President of the Obstetrical Society of Edinburgh; Dr. F. W. Kidd, Professor of Obstetrics and Gynecology in the Royal College of Surgeons in Ireland; and Dr. W. J. Sinclair, Professor of Obstetrics and Gynecology, Owens College, Manchester; and collaborators distributed through the colonies and dependencies. The publishers will be Messrs. Baillière, Tindall, and Cox. The promoters of the new journal are showing their modernity by constituting themselves a limited liability company, the

prospectus of which will be shortly issued. As the promoters number among them, in addition to the names already mentioned in connexion with the editorial department, \*Sir John Williams, Bart., Emeritus Professor of Obstetrics, University College, London; \*Dr. F. H. Champneys, obstetric physician to St. Bartholomew's Hospital; \*Dr. G. E. Herman, obstetric physician to the London Hospital; Dr. Peter Horrocks, obstetric physician to Guy's Hospital; Dr. R. P. Ranken Lyle, Lecturer on Obstetrics and Gynecology, University of Durham; \*Dr. W. J. Sinclair, Professor of Obstetrics and Gynecology, Owens College, Manchester; \*Dr. Edward Malins, Professor of Obstetrics, University of Birmingham; Dr. Murdoch Cameron, Professor of Midwifery and Diseases of Women, University of Glasgow; Dr. J. A. C. Kynoch, Professor of Midwifery and Diseases of Women, University of St. Andrews; \*Dr. A. R. Simpson, Professor of Midwifery and Diseases of Women, University of Edinburgh; Dr. William Stephenson, Professor of Midwifery and Diseases of Women, University of Aberdeen; and Dr. John W. Byers, Professor of Midwifery and Diseases of Women, Queen's College, Belfast, the medical profession has a good guarantee that the undertaking is in thoroughly first-class and representative hands. The first directors will be those of the promoters to whose names we have affixed an asterisk. We make no further comment until the prospectus is published save that we wish the new venture prosperity.

#### PRESERVED SHRIMPS.

It appears that shrimps are imported into this country from Holland and that borax is used in somewhat large quantities in order to preserve them. A shrimp-dealer of Morecambe has recently been summoned for selling such shrimps on the ground that they were unwholesome, apparently because they were preserved with borax. The prosecuting solicitor said that he looked on this as a test case. Mr. Williams, county analyst, said that the samples which he had examined contained 95 grains of borax to the pound. Mr. E. Sergeant, medical officer of health to the Lancashire County Council, and Professor Rubert W. Boyce said that borax was injurious to health. The expert evidence given in the case referred to the possibly injurious effects of the borax without regard at all to the question as to whether apart from borax the shrimps were wholesome. It was stated that the borax kept the shrimps unchanged in appearance for months. Doubtless the addition of borax was, in one sense, desirable in preventing the shrimps from becoming poisonous by undergoing putrefactive change. For the defence it was urged that the dealer never sold shrimps in this way before, but soaked them in salt-and-water for eight hours and then boiled them. The question arose as to how much of the borax would be removed by this treatment, but none of the witnesses could give any definite information on the point. It would be well if some experiments were made to determine this. Mr. Spilsbury of Birmingham, an analytical chemist, said that he did not consider that the amount of borax was excessive or that any less quantity would effectually preserve the shrimps. Mr. A. S. Barling, honorary surgeon to the Royal Lancaster Infirmary, said that he had given boric acid and borax in doses of 60 grains daily to numbers of patients and had not noticed any ill-effects. Previously to the cooking of the shrimps the borax might possibly be good in destroying sea-shore organisms, which often enough include sewage organisms. Curiously enough, we recorded some time ago a number of cases of acute poisoning due to the consumption of shrimp paste which occurred at St. Anne-on-Sea, near Blackpool, which is not very far from Morecambe. Possibly the Dutch shrimps may

<sup>1</sup> Quoted by Jacobi, *Twentieth Century Practice of Medicine*, vol. xvii., 1899, p. 118.

throw some light on these cases. It is, at any rate, a somewhat remarkable coincidence that poisonous shrimp paste was seized near Blackpool some years ago and that quite recently preserved Dutch shrimps should be found to have been imported into Morecambe. The bench found the defendant guilty and imposed the maximum penalty of £20 and costs. In view, however, of what we have pointed out the matter should not be allowed to rest at this stage.

#### THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Cape of Good Hope received at the Colonial Office on Nov. 13th states that for the week ending Nov. 9th the only cases of plague at the Cape occurred at Port Elizabeth. They were as follows: Europeans, 1; natives, 4. The deaths were all at Port Elizabeth and numbered Europeans, 1; natives, 2. The area of infection remains unchanged. The cases of plague in persons under naval and military control were natives, 1, at the Remount Camp, and natives, 1, at the South Military Camp, Port Elizabeth. As regards the Mauritius, a telegram from the Governor received at the Colonial Office on Nov. 15th states that for the week ending Nov. 14th there were 83 cases of plague and 56 deaths. Clean bills of health have been issued at Liverpool.

#### THE REPORT ON THE CONCENTRATION CAMPS IN SOUTH AFRICA.

A REPORT on the Concentration Camps in South Africa has been issued as a blue-book by the Colonial Office and is welcome while there is so much serious discussion of the management of, and mortality in, these places of refuge. The blue-book deals exhaustively with the camps in the Transvaal, and contains many interesting statistics concerning the camps at Natal, Cape Colony, and Port Elizabeth. No one can read its contents without seeing at once that those responsible for the management of the camps have had to contend with an enormous amount of ignorance and ingrained habits, in themselves sufficiently insanitary to cause a high death-rate. When we remember that over 65,000 refugees in the Transvaal and over 31,000 in the Orange River Colony up to August and June of this year respectively have been housed, fed, and clothed by our Government while active war preparations were also being carried out in this country, while a large army was being fed, and when the provision of transports for military necessities was stretched to the breaking point—when all this is remembered the wonder is not that the mortality has been high, but that it has not been higher. As far as we can see, everything that can be done for those in our charge has been done, or is being done, by the authorities, but the difficulties in the way of proper administration are very great.

#### A DOUBLE STAIN FOR THE BACILLUS DIPHThERIE.

VARIOUS staining methods have been devised to demonstrate and study the structure of the bacillus of diphtheria. It is stained best by Löffler's solution of aniline blue. There are several methods which will produce a double stain; Professor Neisser, for instance, has devised a stain which colours the protoplasm brown and the chromophilic points blue-black. In a reprint from the *University of Pennsylvania Medical Bulletin* Dr. R. L. Pitfield, assistant bacteriologist to the Pennsylvania State Board of Health, describes a method which has the property of sharply differentiating the diagnostic features of the Klebs-Löffler bacillus and also renders it easy to see that the chromatin points are of a substance different from the rest of the protoplasm. Three solutions are required: (a) silver nitrate, five grammes;

distilled water, five cubic centimetres; and saturated alcoholic solution of fuchsin, three cubic centimetres; (b) pyrogallol-acid, one gramme; 10 per cent. sodium hydrate in water, five cubic centimetres; and distilled water, 10 cubic centimetres; (c) carbol fuchsin solution, 10 drops; and distilled water 10 cubic centimetres. After a glass slide or cover-glass has been prepared from the material to be examined the film should be fixed with heat, and a small quantity of solution (a) poured on, heated to boiling, allowed to remain on for one minute, and then washed off. The specimen is then treated in the same manner with solution (b), and finally a small quantity of solution (c) is poured on, allowed to remain for two minutes, and then washed off and the glass allowed to dry. On examination the organisms will appear of a delicate pink colour of slightly uneven shades, corresponding to the density of the protoplasm. At one or both ends, and often in the middle, brilliantly shining black points appear, which stand out very sharp and clear. The cell membrane stains a grey-brown of very light shade. Dr. Pitfield states that the morphology of the diphtheria bacilli varies greatly. In organisms of very low virulence he has observed that the bacilli exhibit these points at the very ends of the rod; they appear simply attached; there may be a small point in the middle. Other bacilli of greater virulence show these points well within the protoplasm, but yet strictly polar as to their position.

#### SMALL-POX IN LONDON.

THE returns of small-pox for the current week show an increase so far over last week. On Saturday, Nov. 16th, 21 fresh cases were notified. On Sunday, the 17th, 11 fresh cases were notified; on Monday, the 18th, there were 35 fresh cases; on Tuesday, the 19th, there were 28 fresh cases; and on Wednesday, the 20th, there were 18 fresh cases. At a meeting of the Marylebone Board of Guardians on Nov. 18th questions were asked of the chairman whether he could tell the meeting the proportion of vaccinated persons who had died in the Metropolitan Asylums Board hospitals during the present outbreak. The chairman, who is also chairman of the General Purposes Committee of the Metropolitan Asylums Board, said that a return was being prepared but that it was not yet complete. Councillor Anglim, who is reported as saying that he thought vaccination "monstrous and horrible," asked whether all the fatal cases from Marylebone were not vaccinated persons. In the course of his answer the chairman is reported as saying, "One remarkable thing is that children who have recently been vaccinated are practically immune." Why "remarkable"?

THE death, which occurred on Tuesday, Nov. 19th, is announced of Dr. Henry Sutherland, for many years lecturer on insanity at the Westminster Hospital. We hope to give an account of his life in our next issue.

THE annual dinner of the past and present students of the National Dental Hospital and College, Great Portland-street, London, W., will take place in the Royal Venetian Chamber, Holborn Restaurant, on Friday, Nov. 29th, at 7 P.M. The chair will be taken by Mr. S. J. Hutchinson.

THE autumn dinner of the Irish Medical Schools and Graduates' Association will take place in the Victoria Hall of the Hotel Cecil on Wednesday, Nov. 27th, at 7.15 P.M. Early application for tickets is requested to Dr. J. H. Swanton, 40, Harley-street, London, W.

THE Royal Commission on Tuberculosis is now sitting at 1, Chapel-place, Delahay-street, Westminster. The experimental part of its work will be carried out near Stansted in Essex on two farms that have been placed at the disposal of the Commission by Sir James Blyth.

## THE WATER-SUPPLY OF LIVERPOOL.

THE annual report on the water-supply of Liverpool for the year 1900 has been recently printed in accordance with a resolution of the Water Committee of that city. It contains a general account of the sources of supply and mode of distribution written by the engineer, Mr. J. Parry, and a report on the quality of the water by Professor R. Boyce of University College, Liverpool. The sources from which the water is derived are Lake Vyrnwy, which has contributed 46.25 per cent.; Rivington Reservoirs, which have supplied 40.52 per cent.; and Windsor, Green-lane, and Dudlow have wells which have together supplied 13.23 per cent. of the total quantity of water used, which amounted during the year to 16,312,075,000 gallons.

The water of Lake Vyrnwy is derived from a mountainous district which has a heavy rainfall. Records are kept of the daily rainfall at 12 places in the watershed. During the year 1900 the quantity registered was over 80 inches at two of these, between 70 and 80 at four, between 60 and 70 at three, and between 56 and 60 at the remaining three. In some part of the watershed rain fell on no less than 208 days of the year. Vyrnwy Lake when full contains 13,125,000,000 gallons; the lowest point to which the surface fell last year was 2.33 feet below the overflow, which represents a quantity of 704,000,000 below the maximum. Extensive plantations of trees have already been made on the watershed, and during last year over 15,000 trees were transplanted from the corporation nurseries. The report contains an excellent diagram showing the levels of the reservoirs and the course of the water from Lake Vyrnwy to the Prescott service reservoirs. The counties traversed are part of Montgomery, Denbigh, Shropshire, Flintshire, Cheshire, and Lancashire. The reservoirs are at Parc Uchaf, the next at Oswestry where there are filter-beds and a clear water-tank. In Cheshire there are reservoirs at Malpas and Colesbrook. The lake is a little over 820 feet, Oswestry reservoir is about 700 feet, Malpas 440 feet, Colesbrook 390 feet, and Prescott reservoirs 276 feet above the sea level. The average results of analysis expressed in parts per 100,000 of the Vyrnwy water were as follows: total solid matters in solution, 5.11; organic carbon, 0.221; organic nitrogen, 0.013; ammonia, 0.002; nitrogen as nitrates, none; total combined nitrogen, 0.015; chlorine, 0.95; oxygen consumed in three hours, 0.158; and hardness, 2.4. A number of observations have been made during the year in regard to the bacillus coli in the moorland streams which supply the lake. The bacillus has not usually been found; when present it has generally been discovered in the neighbourhood of a house or other obvious cause of contamination. The sand of the filter-beds has been found to contain a few specimens. None, it may be here stated, have been found in the filtered water.

The Rivington reservoirs, the second great source of the Liverpool water-supply, have a capacity of 4,000,000,000 gallons; when the level was at the lowest point to which it fell during the year 1900 they contained 2,143,000,000 gallons. The gathering ground which supplies the reservoirs is generally situated at an altitude considerably less than that of Vyrnwy and the rain which falls on it is considerably less. Observations on this point were made at 10 stations. In nine of these the rainfall during the year 1900 was found to be between 40 and 50 inches, and at the tenth station it was 38.3 inches. Rain fell on 224 days of the year. Some excellent work has been done to prevent possible contamination of the water. In one case a conduit has been made to convey sewage to a place beyond the watershed, additional purchases of land and buildings have been made by the corporation, and negotiations are in progress in regard to others. Ultimately it may be hoped that it will be possible to ensure that rigid regulations may be made and carried out so that the purity of the upland water will be ensured. Collecting reservoirs are situated at Roddlesworth, at Yarrow, in the course of the Ranebrook, and at Anglezarke. From these sources the water is conveyed to the Rivington reservoirs which are situated rather over 400 feet above the sea-level. Water is filtered at Rivington and there is a clear water-tank there. Between Rivington and Prescott there are reservoirs at Aspull and at Mountry House. Some trouble was caused during the year by leakage from the 44-inch

pipes between Hindley and Ashton, at places situated at from three to 10 miles from the inlet to the aqueduct on the filter-beds. The damage was caused by disturbances of the ground over coal-mines. This is quite a serious matter, for 116 leakages were caused in this way during the year, and the flow of water to Liverpool was in consequence stopped for an aggregate period of 18 days. In four instances it was found that the pipes were fractured. An even greater number of leakages (to be exact 146) occurred during the preceding year. The average results of analysis of the Rivington water were as follows: total solid matters in solution, 9.62; organic carbon, 0.174; organic nitrogen, 0.023; ammonia, 0.001; nitrogen as nitrates, none; total combined nitrogen, 0.025; chlorine, 1.45; oxygen consumed in 15 minutes, 0.034; in three hours, 0.073; and hardness, 3.4.

Concerning the third source of supply—the wells—little need be said; in the case of the one at Windsor a puddle wall has been carried from the engine-house down to the solid rock outside the well-shaft to prevent any possible contamination from surface percolation. No change has taken place in the quantity of water derived from the wells; the total amount for the year was 1,319,505,000 gallons. The well water, especially that of Green-lane and Windsor, is very considerably harder than that obtained from the uplands, as will be seen from the following table giving the average results of analysis in parts per 100,000. The water supplied for consumption in the city of Liverpool is a mixture of the upland and of the well water. The results of the analyses are given in the table which follows below those of the well water.

Source.	Total solid matter in solution.	Organic carbon.	Organic nitrogen.	Ammonia.	Nitrogen as nitrates.	Total combined nitrogen.	Chlorine.	Oxygen consumed in 15 minutes.	Oxygen consumed in three hours.	Hardness.
Dudlow-lane ...	18.05	0.028	0.008	0.001	0.572	0.581	2.90	0.002	0.005	7.1
Green-lane ...	32.40	0.022	0.003	0.001	0.532	0.536	3.34	0.000	0.004	20.4
Windsor	40.20	0.042	0.004	0.002	0.704	0.709	4.60	0.000	0.009	28.4
Tap in Dale-street	12.00	0.149	0.018	0.002	0.102	0.121	1.60	0.047	0.099	5.1

The Liverpool Corporation Waterworks supply not only the city itself and the country immediately around it but also the town of Chorley and certain other towns and districts which are beyond their compulsory limits. The daily average quantity supplied to the Liverpool area during the year was 25,886,000, to Chorley 469,000, and to the other places 1,332,000 gallons daily.

The average rate per head per day supplied in and immediately around the city was 31.208 gallons, but in this amount is included the trade and ship supplies which together amounted to over eight gallons per head daily. The amount of water distributed during the year 1900 was in excess of that delivered during the previous year to the extent of 261,900,000 gallons. The frosts which occurred in December, 1899, and January and February, 1900, caused the fracture of many pipes and the consequent loss of much water through leakage. The amount of water used during the hot weather of the dry summer was also in excess of that used at ordinary times. Two very interesting diagrams are given in the report, one showing the average daily supply of water per week (i.e., arranged in weekly periods) for the years 1898 and 1900, and the other the actual consumption of water each day during certain selected weeks of the year. The first diagram shows that the greatest amount of water is generally used during the hot months of the year; it shows also the great waste of water which may be caused by the destructive influence of frost. That of February, 1900, caused a sudden increase in the amount of water supplied from under 26 to considerably over 31 millions of gallons daily, although at that very time doubtless many people were inconvenienced by the want of water. The second diagram referred to is of interest in showing the effect of the Saturday half-holiday and the Sunday holiday on the amount of water required. This latter matter, however, is chiefly of local interest. The effects of frost and of

drought on the other hand are of general interest, and it cannot be too strongly insisted upon that, as Mr. Parry observes, "apart altogether from the steady and gradual increase of consumption due to the increase of consumers and to a more liberal use of water for private and public sanitary purposes, there are some years in which the consumption becomes abnormally high through the influence of severe frosts in the winter and long droughts in the summer." It therefore follows that "in any comparison between the quantity per day to be provided and the resources available to meet those demands these abnormal rates of consumption must not be overlooked." Those responsible for the water-supply of London will do well to remember this fact.

The report of Professor Boyce on the bacteriological analysis of the water has already been referred to. A full account is given by him of the methods he employs, of the routine investigations which are made, and of the results obtained. It need here only be said that the investigations are carried out in entire accord with the most recently ascertained scientific facts and that the results are eminently satisfactory.

The people of Liverpool must be congratulated on the success which has rewarded their public-spirited enterprise in trying to obtain an entirely satisfactory water-supply.

## MUNICIPAL HONOURS AND MEDICAL MEN.

THE following medical practitioners have been elected or re-elected to the mayoral chairs of their respective boroughs:—

**Aberavon.**—Mr. John H. Williams, M.R.C.S. Eng., L.S.A., J.P., received his professional education at the London Hospital Medical School and qualified from there in November, 1883. He was associated for many years with Mr. E. Rice Morgan of Morriston and on leaving him in 1895 was the recipient of an illuminated address and a case of surgical instruments from the inhabitants. In July, 1895, he started practice at Aberavon and in the following year was returned at the head of the poll as town councillor. In October, 1897, he was made a justice of the peace for the borough and was again returned to the town council in November, 1899. In November, 1900, he was offered the mayorship but declined the honour. During the present month he has been elected unanimously as mayor, and also as alderman for a term of six years. For three years he has served on the Swansea Port Sanitary Authority and for two years on the Port Talbot Pilotage Board. He is a member of the Morfa Explosion Relief Fund. Mr. Williams is a Freemason and a Conservative in politics.

**Barnsley.**—By the unanimous wish of the council Mr. J. Fletcher Horne, M.D. St. And., F.R.C.S., F.R.S. Edin., J.P., has this year been re-elected mayor. Born at Barnsley, he was educated at the Leeds Grammar School, and later he entered as a student at the Leeds School of Medicine and qualified in 1874. He afterwards held the post of assistant medical officer at the Leeds General Infirmary. He commenced practice at Barnsley in 1876. He is senior surgeon to the Beckett Hospital and medical referee under the Workmen's Compensation Act for the district. In 1888 he won a seat on the school board, and in 1891 successfully competed for a seat on the town council, which he still holds and which has not been contested since. Dr. Horne has found time to devote to literature. He has written a book on "Trephining in its Ancient and Modern Aspects" (1894), whilst "The Mirage of Two Buried Cities," a book dealing with the artistic and other remains of Herculaneum and Pompeii, was favourably reviewed in THE LANCET of March 17th of last year.

**Bath.**—Mr. Edward England Phillips, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A., J.P., received his medical education at the Bristol Medical School. After taking his qualifications he was appointed surgeon to the Bristol Dispensary and then practised at Southend-on-Sea where he was medical officer of health of the Rochford Rural and Southend-on-Sea Urban Districts. He was also surgeon to the Southend Victoria Hospital. After being in practice for 25 years he retired from active work and settled in Bath. He has always taken a great interest in political, municipal, and social life in

Bath. Mr. Phillips is a justice of the peace for the counties of Essex and Somerset.

**Bootle.**—Mr. George S. Wild, M.D. Durh., M.R.C.S. Eng., L.R.C.P. Edin., was educated at the Liverpool Royal Infirmary School of Medicine, and gained the bronze medal for anatomy and physiology in 1882, the silver medal in midwifery in 1883, besides certificates in medicine and surgery and the Derby exhibition in clinical medicine and surgery in 1884. He is an honorary physician to Bootle Borough Hospital and is medical referee to several insurance companies. He is a member of the British Medical Association and of the North of England Obstetrical and Gynaecological Society. In 1884 Dr. Wild commenced practice in Bootle, with which borough his family has been connected for many years, his father having been a member of the council since its incorporation, an alderman and chairman of the Health Committee, and also a justice of the peace for the borough. Dr. Wild first entered the Bootle Town Council in 1889, but did not seek re-election at the termination of his year of office. In 1899 he was again returned without opposition, and was a member of the Finance and Health Committees, acting as deputy chairman of the latter.

**Bournemouth.**—Mr. G. Frost, M.D. Durh., M.R.C.S. Eng., L.R.C.P. Lond., after studying at the Middlesex Hospital, where he obtained first prize in nearly every subject and obtained the Broderip Scholarship, went to Bournemouth 20 years ago and has always taken the greatest interest in matters concerning the health and sanitary condition of the town. While attending to a large practice and to municipal duties he has found time to study for the bar—to which he hopes soon to be called—merely as an educational attainment. He is a Conservative and a member of the Church of England. In sports of all kinds he is much interested. His election as mayor was unanimous.

**Cheltenham.**—Mr. Richard Rogers, L.D.S.R.C.S.I., has already served the office of mayor for three years, the last occasion being two years ago.

**Daventry.**—Mr. J. C. O'Rafferty, L.R.C.S., L.R.C.P. Edin., L.F.P.S. Glasg., was born in 1864 and was educated at Belvedere College, Dublin, and at Adelaide Hospital, Dublin. He was in practice at Waltham, Melton Mowbray, from 1893 to 1898, and was medical officer of the Waltham District of the Melton Union. He is now a medical officer of No. 1 District, Daventry Union, and medical officer of the Daventry Union Workhouse. He has acted on the town council for the past two years and was elected mayor on Nov. 1st of the present year.

**Droitwich.**—Mr. H. Shirley Jones, M.R.C.S., L.S.A., received his medical education at Queen's College, Birmingham, and became qualified in 1884. He has been in practice in Droitwich for 14 years and was elected to the Council in 1891. Eight years later he was elected an alderman and was mayor in the Diamond Jubilee year, 1897.

**Falmouth.**—Mr. William Banks, M.B. Lond., M.R.C.S. Eng., is the eldest son of Mr. E. Banks of Falmouth, a former chairman of the local School Board. He entered the council in 1892 on the extension of the borough and was elected alderman in 1898.

**Glastonbury.**—Mr. Maurice J. Doidge, B.A. Cantab., M.D. Brux., M.R.C.S. Eng., L.S.A. Lond., was educated at Merchant Taylors' School, Caius College, Cambridge, and St. Mary's Hospital. In 1887 he succeeded to his father's practice at Lifton, Devon, and went to Glastonbury in 1895. In 1897 he was elected a town councillor and again after a contest in 1898, and also in the present month. Dr. Doidge is a district medical officer, surgeon to the Somerset county police, and certifying factory surgeon.

**Honiton.**—Mr. James Campbell Macaulay, M.R.C.S. Eng., L.S.A., who has been unanimously elected mayor of Honiton from outside the council, has occupied the civic chair on three previous occasions—namely, in 1884, 1887, and 1894. He was for many years a member of the Honiton Borough Council, but in 1897 he resigned his seat as alderman.

**Kingston-upon-Thames.**—Mr. William Evelyn St. Lawrence Finny, M.B., M.Ch. R.U.I., L.R.C.P. Edin., of the family of Finny, formerly Finny, was born at Gotham, in Derbyshire, and was educated at St. Columba's College, Dublin, and Trinity College School of Physic, where he studied under the immediate supervision of his uncle, Professor J. Magee Finny, M.D., ex-President of the Royal College of Physicians in Ireland. He graduated M.B. and M.Ch. of the Royal University in 1887 and B.A.O. in 1891. He obtained his L.M. Rotunda Hospital and special certificate in gynaecology in 1887, and became L.R.C.P. and L.M. Edinburgh in 1897.

He is a member of the British Medical and Medico-Psychological Associations and a member of the Council of the Irish Medical Schools' and Graduates' Association and of the Surrey Archaeological Society. He has contributed to the medical journals and has written articles for the archaeological journals. He entered the town council of Kingston-upon-Thames for Kingston Hill ward in November, 1897, and was first elected Mayor of Kingston-upon-Thames in November, 1898. During his former mayoralty he received and entertained H.R.H. the Duke of Cambridge and conferred the freedom of the borough upon him, His Royal Highness having given the land upon which the Victoria Hospital was built and afterwards formally opened it. Dr. Finny was the organiser of the celebration of the 700th anniversary of the granting of the first Charter to Kingston by King John and he designed a stained glass heraldic window which was placed in the town hall by public subscription to commemorate the event. Dr. Finny has served on the Kingston Board of Guardians for four years and was re-elected at the head of the poll in 1897.

**Montgomery.**—Mr. N. W. Fairles-Humphreys, M.R.C.S. Eng., L.S.A., was born in 1837 and was educated at St. Bartholomew's Hospital. In 1885 he was elected alderman for the Borough of Montgomery and has been six times mayor of that borough. He is a justice of the peace for the county of Montgomeryshire, was high sheriff in 1882-83, and has been a county alderman since 1889.

**Nelson.**—Dr. W. Jackson, L.R.C.P. Edin., L.M., L.F.P.S. Glasg., studied medicine at the University and Royal Infirmary of Glasgow. He commenced practice in Nelson in 1882 and obtained the M.D., Ch.D. Brux. in 1888, and the D.P.H. Cambridge in 1889; whilst reading the Public Health and other Acts for the latter degree he became fascinated with the study of law and joined the Middle Temple. He was called to the Bar in 1894. He is certifying factory surgeon for the borough of Nelson and district, and has been for 12 years one of the honorary medical officers to the Victoria Hospital for Burnley and District. He commenced his municipal career by joining the Nelson Town Council on its incorporation in 1890 and has been chairman of the Health Committee for a period of 10 years, during which time he has been active in promoting many improvements of a sanitary nature. Dr. Jackson holds the position of being mayor of a town which can boast of having the lowest death-rate (12.2) and the lowest percentage of infantile deaths (127 per 1000 births under one year) of any borough in Lancashire.

**Ruthin.**—Mr. J. Medwyn Hughes, M.B., C.M. Edin., has been appointed mayor of Ruthin for the sixth time. He is an alderman and has been on the council for 13 years. He graduated M.B., C.M. Edin. in 1886, and has been in practice for 15 years. He was medical officer of health of Ruthin District for seven years, and he now fills the offices of union medical officer and public vaccinator. He has always taken an active interest in educational matters, both local and county.

**Saffron Walden.**—Mr. J. P. Atkinson, M.D. Glasg., L.R.C.P. Lond., L.R.C.S. Edin., was born in 1838. After being educated privately he studied medicine at the University of Glasgow, where he graduated M.D. in 1863 with honours, having taken honours also at the first M.D. examination. Previously to that he took the L.R.C.S. Edin., and later in the same year the L.R.C.P. Lond. After practising for some years in Oxfordshire he settled at Saffron Walden. Dr. Atkinson has always taken a keen interest in public and municipal affairs and was elected a member of the Town Council in 1888. In 1891 he was elected mayor and was re-elected the following year. He was again appointed mayor in November of the present year. He takes great interest in all sanitary matters, and at his instigation the council resolved to adopt the bacterial system in the treatment of sewage. He is chairman of the Isolation Hospital Board and also of several local institutions. He is a strong and enthusiastic supporter of the Volunteer force and is surgeon-major 3rd (Cams) volunteer battalion Suffolk regiment. He is a Churchman and a Conservative.

**Saltash.**—Mr. Robert Thornton Meadows, M.D. Edin., D.P.H., was born in Canada. He is a Surgeon-Captain of the 2nd Volunteer Battalion Duke of Cornwall's Light Infantry, and belongs to the army medical reserve of officers. He also holds the position of medical officer to St. Barnabas Cottage Hospital. He was elected to the Saltash Council in 1896 and was appointed mayor in 1897, again in 1898, and also in the present year.

## Looking Back.

FROM

THE LANCET, SUNDAY, NOV. 23, 1823.

### MEDICAL SOCIETIES.

ALTHOUGH we do not presume that our readers are unacquainted with the various Medical Societies which exist in this Metropolis, we apprehend there are many to whom an occasional sketch of the most prominent speakers at these useful institutions will be at once entertaining and instructive. It may not be improper to preface the occasional articles, which it is our intention to submit to the public upon this subject, by a few remarks upon the advantages which result from Medical Societies.—Some are composed almost entirely of the seniors of the profession. In such, the conflicting opinions of the veteran practitioners are discussed with a calmness suitable to their age and station, and the doubts and uncertainties of a profession, the perplexities of which are not to be cleared away by mathematical demonstrations or closest cogitations, are submitted for consideration with mutual advantage, and with important benefits to the public. Several of these Societies, however, are formed principally by junior practitioners and medical students; and in these we can neither expect, nor shall we find, the philosophic calmness of age, nor the extensive practical experience which years alone can bestow.

It is also true that, in these Societies, occasional envy may arise; difference of opinion may be discussed with unnecessary warmth; but these trifling disadvantages are amply redeemed by many evident benefits. The habit of addressing a society is productive of a very important advantage. It imparts a facility and promptitude of expression which is most essentially necessary to the success of a medical practitioner; and for want of which we have not unfrequently seen *real* knowledge buried under the *appearance* of total ignorance. The public will judge of the professional acquirements of a man, of which they know little or nothing, by his *extra* professional abilities, of which they at least flatter themselves they know something; and there is no acquisition more imposing, none more valuable to the possessor, than that of promptly and perspicuously stating an opinion, or describing the nature of the case intrusted to his care, when unexpectedly called upon. Nature may have conferred this power upon some intuitively; by many, however, it is acquired with difficulty. It would require but little ingenuity to dilate upon this subject. The operations of *The Lancet*, however, must be brief. We shall first alight upon the Westminster Medical Society, and shall comment upon the different speakers who most frequently occupy its attention. As we are members of the other Metropolitan Societies, we shall pay them due attention, after having devoted a few articles to the Westminster. The order in which we shall notice them will be guided entirely by our own convenience, and is not to be considered as any proof of our opinion of their respective importance.

### THE GENERAL MEDICAL COUNCIL: ELECTION OF DIRECT REPRESENTATIVES, 1901.

#### DR. BRUCE'S ADDRESS TO THE REGISTERED MEDICAL PRACTITIONERS OF SCOTLAND.

LADIES AND GENTLEMEN,—Allow me to thank you most gratefully for your steady support which has during the last 15 years enabled me, however unworthy, to act as your representative on the General Medical Council. May I respectfully ask for your votes for the next quinquennium?

As long as it is customary for the majority of the representatives of the various licensing bodies, as well as those appointed by the Crown, to retain their seats for practically an indefinite term of years, I venture to say that comparative security of tenure for the Direct Representatives will add to their dignity and influence in the deliberations of the Council. I may be allowed to add that the provinces are surely entitled to have *one* Representative, as against six

from Edinburgh and Glasgow, there being already three from each of these cities with seats on the Council.

As far as Scotland is concerned, there has been only a single question raised of serious importance to the profession. The right of medical practitioners to dispense drugs seemed, from the action of the Medical Council, to be in danger; and the Council's decision in a particular case caused much feeling in and about Glasgow. But there never was any intention on the part of the Council to interfere with any of the lawful privileges of medical men. Since the error in the form of indictment was pointed out the Council has taken care to avoid a similar mistake. As regards prosecutions at the instance of the Pharmaceutical Society, the Council, while feeling bound to intervene in the interests of the public at large, and for the sake of the good name of the profession, is not, I am sure, in the least degree disposed to become the cat's-paw of the chemists and druggists for their advantage, and to the detriment of members of our own body. At the same time I am very sorry that the Council, guided by legal advice, refused to hear the representative deputation which went up to London in June last to voice the views of their fellow practitioners in Glasgow. I felt at the time that I could only enter my protest against such action. If the Council is to be congratulated on the strictly legal lines on which it has hitherto conducted its penal business it should also bear in mind that it is merely a domestic tribunal. While steadily guarding itself when proceeding to inflict sentences entailing loss of civil rights to accused persons, the Council, in my opinion, ought at the same time to take cognisance of the purely professional aspects of the questions submitted to it, and be ready to listen to every form of deliberate and respectful professional opinion.

With considerable reluctance I have come to the conclusion that there is a great need for regulating the duties and improving the education and training of midwives, while retaining their services as necessary in connexion with puerperal attendance on the poorer classes.

The subject of medical aid associations has absorbed much time and attention from the Council. Contract practice in this form was complained of as unprofessional and it was thought incumbent on the Council to take the matter up. Much evidence was led before a special committee, of which I was a member, in support of the averments against those bodies and their management. On the other hand, strenuous attempts were made on the opposite side to rebut these charges. The committee came to the conclusion that much harm had resulted in many cases, both to the patients and their medical attendants, from such a system of "sweating." They were, however, at the same time forced to the conclusion that the Council could only deal with the mischief complained of by issuing a general warning to all concerned, more especially against touting and advertising in connexion with these institutions. At a later stage several meetings took place between the committee and representatives of the great friendly societies, and it was unanimously resolved to form a conciliation board which would deal with all questions in dispute between clubs and their doctors. The societies possess in their records sufficient data, both as to number of cases and periods of sickness, to be able to provide almost mathematically the amount of money necessary to set aside for paying fair fees for medical attendance on their members, if such should be required. The charge would best be framed in the usual way, as so much per visit, or advice at the doctor's rooms. But if it be found to be simpler in working, to fix a lump sum per case of illness, much even then would be done towards placing contract practice on a sounder basis. While I hold strongly that such arrangements are fundamentally wrong, knowledge, skill, and attention being in their nature imponderable and not proper subjects for being bought and sold, yet it would be foolish for club doctors not to accept half a loaf rather than no bread. Club practice in England, at least, has acquired too much of a hold to be swept away by outside interference. I hope that, by means of the conciliation board referred to, better terms will be secured by our brother practitioners.

There is clamant need for amendment of the Medical Acts, more particularly by adding to the number of Direct Representatives. Scotland should have at least two such, one for the eastern and another for the western division of this part of the kingdom.

With regard to medical education, I am decidedly of opinion that the present curriculum of five years should remain intact, in reality if not in name. By relegating the

subjects of physics, chemistry, and biology (including botany) to a course of scientific study and examination in extension of the present medical preliminary examination a complete term of four years for purely medical and surgical work would thus be ensured. The last of the four years should be devoted entirely to bedside study and practice, either in hospitals or in connexion with public dispensaries. On the other hand, the number of systematic lectures ought to be distinctly diminished, whilst the worrying tests by formal examinations might, in the real interests of the student's education, be considerably curtailed.

I am, Gentlemen, your faithful and obedient servant,  
WILLIAM BRUCE, M.D., L.R.C.S. Edin.,  
Dingwall, Nov. 8th, 1901. LL.D. (Hon. Aberd. Univ.)

#### DR. GLOVER'S RESIGNATION.

At a meeting of the Liverpool Medical Club held on Nov. 6th to discuss the merits of the candidates for election to the General Medical Council the honorary secretary read a letter from Dr. Glover announcing his withdrawal from the contest owing to illness. A motion was proposed and carried unanimously that the honorary secretary should be requested to write to Dr. Glover expressing the regret of the meeting at the cause of his retirement and an appreciation of his long services on the Council on behalf of the profession.

#### THE MEDICAL GUILD OF MANCHESTER AND DR. WOODCOCK'S CANDIDATURE.

At a meeting of the Medical Guild of Manchester on Nov. 13th it was decided to urge members to plump for Dr. S. Woodcock at the forthcoming election of Direct Representatives on the General Medical Council. He is pledged to support the "registration of midwifery nurses and the provision by the Government for the payment of the fees for the nurse and medical attendant selected by the patient, as outlined in the guild scheme."

#### THE CANDIDATURE OF MR. GEORGE BROWN AND MR. GEORGE JACKSON.

There will be a meeting in Halifax on Tuesday, Nov. 26th, at 4.30 P.M., in support of the candidature of Mr. George Brown and Mr. George Jackson.

#### THE REPORT OF THE INSPECTORS OF LUNATICS FOR IRELAND.

In the fiftieth report of the Inspectors of Lunatics for Ireland it is stated that the total number of the insane in establishments on Jan. 1st, 1901, was 21,169, as against 20,863 on the corresponding date of the previous year. These numbers do not take into account insane patients residing in private dwellings—save Chancery patients—or those wandering at large. Although a total increase of lunatics has thus to be recorded it is satisfactory to note that it only amounted to 306 over the total for the previous year and that it is 186 less than the average annual increment for the past 10 years, which was 492. As pointed out in previous reports, a considerable number of admissions to district asylums consists of transfers from the lunatic wards of workhouses. "It is, however, probable that the classes of pauper lunatics which furnish a large proportion of the first admissions to asylums and workhouses are decreasing from year to year. No absolute figures can, however, be obtained until the result of this year's census is known." The total number of lunatics under care increases in Ireland at a rapid rate in proportion to the population. Thus in 1895 there were 401 patients per 100,000 population, in 1897 the proportion was 430, in 1899 it was 460, and in 1900 it was 470 per 100,000. The total admissions of patients during the year amounted to 3546, as against 3549 during the previous year. The number of patients discharged as recovered during the year was 1288, or 8.0 per cent. of the average number resident. The deaths during the year amounted to 1274, or 7.9 per cent., as calculated on the same basis. A high rate of mortality from phthisis has prevailed during the year, the number of deaths from this cause being 349, as against 321 during the previous year. The extreme liability of the insane to contract tuberculosis is

well known, but the question of building isolation hospitals for them "presents special difficulties such as would not arise in ordinary hospitals." The returns of the number of cases of general paralysis are also of interest, showing a "rapid increase of the disease amongst the urban population of Ireland where it was comparatively unknown not many years ago." The average cost of maintenance per head has gone up during the year to £2 3s. 10d. above that of the previous year, this increase being due to the great advance in the price of almost all articles of food, fuel, hardware, &c., which took place during the year. The year 1900 was uneventful so far as the State Criminal Lunatic Asylum was concerned. The number of patients on Jan. 1st, 1901, was 162, which was identical with the figure a year earlier. No suicide, escape, or serious casualty occurred during the year among these patients. Zymotic diseases have prevailed to an exceptional extent in certain asylums, as, e.g., at Ballinasloe, Clonmel, Cork, Downpatrick, Limerick, Monaghan, and Mullingar, the outbreaks being mainly those of influenza, dysentery, typhoid fever, and erysipelas. No cases of zymotic disease occurred in Antrim, Armagh, or Castlebar asylums. Referring to the growing need of new asylums for the accommodation of the increasing numbers of lunatics the Inspectors are of opinion that where structural alterations of existing workhouses may involve excessive outlay "it would in the end be found more economical to erect in connexion with the existing district asylums simple and inexpensive buildings for the accommodation of the insane now located in workhouses."

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6275 births and 4264 deaths were registered during the week ending Nov. 16th. The annual rate of mortality in these towns, which had been 16.7, 17.6, and 19.7 per 1000 in the three preceding weeks, declined again to 19.4 per 1000 last week. In London the death-rate was equal to 20.0 per 1000, while it averaged 19.0 per 1000 in the 32 large provincial towns. The lowest death-rates in these towns were 11.2 in Croydon, 12.3 in Leicester, 12.4 in Halifax, and 13.2 in Swansea; the highest rates were 22.8 in Salford, 23.9 in Manchester, 27.2 in Preston, and 28.4 in Norwich. The 4264 deaths in these towns last week included 427 which were referred to the principal zymotic diseases, against 371 and 442 in the two preceding weeks; of these 427 deaths 138 resulted from measles, 81 from diphtheria, 57 from diarrhoeal diseases, 53 from "fever" (principally enteric), 46 from whooping-cough, 38 from scarlet fever, and 14 from small-pox. No death from any of these diseases occurred last week in Derby or in Burnley; in the other towns they caused the lowest death-rates in Croydon, Nottingham, and Newcastle, and the highest rates in Wolverhampton, Norwich, Salford, Leeds, and Sheffield. The greatest mortality from measles was recorded in Norwich, Manchester, Oldham, Preston, and Sheffield; from scarlet fever in Birmingham; and from diarrhoeal diseases in Wolverhampton. The mortality from whooping-cough and from "fever" showed no marked excess in any of the large towns. The 81 deaths from diphtheria in these towns included 35 in London, six in West Ham, six in Cardiff, five in Portsmouth, and four in Liverpool. Fourteen fatal cases of small-pox were registered in London, but not one in any of the 32 large provincial towns. The number of small-pox patients under treatment in the Metropolitan Asylums hospitals at the end of the week was 368, against 180, 284, and 297 on the three preceding Saturdays; 113 new cases were admitted during the week, against 57, 169, and 62 in the three preceding weeks. The number of scarlet fever patients in these hospitals (and in the London Fever Hospital, which had been 3392 and 3331 at the end of the two preceding weeks, had risen again to 3353 on Saturday, Nov. 16th; 376 new cases were admitted during the week, against 400, 425, and 380 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 242, 327, and 445 in the three preceding weeks, further rose last week to 477, and were 83 above the corrected average. The causes of 43, or 1.0 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified

in West Ham, Bristol, Nottingham, Bradford, and 17 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Manchester, Sunderland, and Gateshead.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had risen from 14.5 to 21.7 per 1000 in the six preceding weeks, declined again to 19.9 per 1000 during the week ending Nov. 16th, but showed an excess of 0.5 per 1000 above the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 12.6 in Perth and 16.0 in Edinburgh to 21.6 in Glasgow and 25.9 in Greenock. The 633 deaths in these towns included 22 which were referred to diarrhoea, 18 to measles, 12 to "fever," nine to diphtheria, eight to scarlet fever, and three to whooping-cough. In all, 72 deaths resulted from these principal zymotic diseases last week, against 69, 79, and 90 in the three preceding weeks. These 72 deaths were equal to an annual rate of 2.3 per 1000, which was 0.4 per 1000 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of diarrhoea, which had been 32 and 23 in the two preceding weeks, further declined last week to 22, of which 13 occurred in Glasgow, four in Dundee, and three in Aberdeen. The deaths from measles, which had been 12, 14, and 24 in the three preceding weeks, decreased to 18 last week, and were all registered in Glasgow. The deaths referred to different forms of "fever," which had increased from five to 16 in the four preceding weeks, declined again to 12 last week, and included eight in Glasgow and two in Paisley. The fatal cases of diphtheria, which had been nine and six in the two preceding weeks, rose again last week to nine, of which five occurred in Glasgow and three in Edinburgh. The deaths from scarlet fever, which had been five in each of the two preceding weeks, increased to eight last week, and included five in Glasgow and two in Greenock. The fatal cases of whooping-cough, which had been eight, five, and 16 in the three preceding weeks, declined again last week to three, all of which were registered in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had risen from 75 to 162 in the five preceding weeks, further increased last week to 190, and exceeded by 27 the number recorded in the corresponding period of last year. The causes of 26, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 19.3, 22.7, and 23.2 per 1000 in the three preceding weeks, further rose to 23.9 per 1000 during the week ending Nov. 16th. During the past four weeks the death-rate has averaged 22.3 per 1000, the rates during the same period being 18.2 in London and 17.0 in Edinburgh. The 172 deaths of persons belonging to Dublin registered during the week under notice were five in excess of the number in the preceding week, and included six which were referred to the principal zymotic diseases, against nine, 19, and five in the three preceding weeks; of these, three resulted from diphtheria, two from diarrhoea, and one from whooping-cough. These six deaths were equal to an annual rate of 0.8 per 1000, the zymotic death-rates during the same period being 1.8 in London and 1.0 in Edinburgh. The mortality from whooping-cough exceeded that recorded in any recent week; the fatal cases of diarrhoea, which had been four, nine, and two in the three preceding weeks, were again two last week. The 172 deaths in Dublin last week included 37 of children under one year of age and 45 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a slight excess over the respective numbers recorded in the preceding week. Nine inquest cases and six deaths from violence were registered, and 50, or nearly one-third of the deaths occurred in public institutions. The causes of eight, or nearly 5 per cent., of the deaths in Dublin last week were not certified.

### VITAL STATISTICS OF LONDON DURING OCTOBER, 1901.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality in each of the cities and boroughs in the county of London. With regard to the notified cases of infectious diseases it



appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to an annual rate of 13·8 per 1000 of the population, provisionally estimated at 4,543,757 persons in the middle of the year. In the three preceding months the rates had been 9·6, 8·6, and 12·4 per 1000 respectively. The rates were considerably below the average in Kensington, Hammersmith, Chelsea, Hampstead, Shoreditch, and Woolwich; while they showed the largest excess in St. Pancras, Hackney, Holborn, Finsbury, Southwark, Bermondsey, and Camberwell. During the five weeks ending Nov. 2nd 347 cases of small-pox were notified in London, against 22, 94, and 157 in the three preceding months; 58 cases belonged to Bermondsey, 47 to Holborn, 37 to the City of Westminster, 37 to St. Pancras, 27 to Stepney, and 21 to Finsbury. Of these 347 cases the number during the last week of the month amounted to 173, and included 39 in Bermondsey, 38 in Holborn, and 29 in the City of Westminster. The number of small-pox patients under treatment in the Metropolitan Asylums hospitals, which had been 13, 74, and 163 at the end of the three preceding months, had further risen to 284 on Saturday, Nov. 2nd: the weekly admissions averaged 72, against 23 and 44 in the two preceding months. The prevalence of scarlet fever showed a considerable increase over that recorded in the preceding months; among the various metropolitan boroughs this disease was proportionally most prevalent in Hackney, Southwark, Bermondsey, Battersea, Camberwell, Deptford, and Greenwich. The Metropolitan Asylums hospitals contained 3281, scarlet fever patients at the end of October, against 3026, 2971, and 2752 at the end of the three preceding months; the weekly admissions averaged 399 during last month, against 343, 288, and 412 in the three preceding months. The prevalence of diphtheria showed a slight excess over that recorded in the preceding month; the greatest proportional prevalence of this disease occurred in Paddington, Fulham, St. Pancras, Stoke Newington, and Hackney boroughs. There were 1570 diphtheria patients under treatment in the Metropolitan Asylums hospitals at the end of last month, against 1332, 1336, and 1499 at the end of the three preceding months; the weekly admissions averaged 243, against 209, 177, and 248 in the three preceding months. The prevalence of enteric fever showed a considerable diminution from the exceptionally high rate of the preceding month; among the various metropolitan boroughs this disease was proportionally most prevalent in Fulham, St. Pancras, Islington, Hackney, Finsbury, Poplar, and Bermondsey. The number of enteric fever patients under treatment in the Metropolitan Asylums hospitals, which had been 166, 225, and 292 at the end of the three preceding months, had declined to 291 at the end of October; the weekly admissions averaged 38, against 29, 42, and 50 in the three preceding months. Erysipelas was proportionally most prevalent in Hackney, Finsbury, Shoreditch, Bethnal Green, Stepney, and Southwark. The 21 cases of puerperal fever included three in Camberwell, two in Kensington, two in St. Pancras, two in Bermondsey, and two in Wandsworth.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various metropolitan boroughs, the deaths occurring in the public institutions of London having been distributed among the boroughs in which the deceased persons had previously resided. During the five weeks ending Nov. 2nd the deaths of 6703 persons were registered, equal to an annual rate of 15·4 per 1000, against 16·1, 18·5, and 15·4 per 1000 in the three preceding months. The lowest death-rates in the various metropolitan boroughs were 10·5 in Lewisham, 10·8 in Greenwich, 10·9 in Hampstead, 11·0 in Paddington, 11·8 in Stoke Newington, and 11·9 in Wandsworth; the highest rates were 18·0 in Holborn and in Bethnal Green, 18·1 in Bermondsey, 18·7 in Shoreditch, 19·1 in Southwark, 20·6 in Finsbury, and 22·0 in Stepney. During the five weeks of October 739 deaths were referred to the principal zymotic diseases; of these 29 resulted from small-pox, 95 from measles, 70 from scarlet fever, 179 from diphtheria, 50 from whooping-cough, 64 from enteric fever, and 252 from diarrhoeal diseases. The lowest death-rates from these diseases occurred last month in Chelsea, City of Westminster, St. Marylebone, Hampstead, City of London, and Greenwich; and the highest rates in St. Pancras, Islington, Holborn, Finsbury, and Poplar. The 29 fatal cases of small-pox greatly exceeded the average, and included six in St.

Pancras, five in Bermondsey, four in Stepney, and three in Holborn. The 95 deaths from measles were 21 below the average number in the corresponding periods of the 10 preceding years; among the various metropolitan boroughs this disease was proportionally most fatal in Kensington, Islington, Finsbury, Bethnal Green, and Battersea. The 70 fatal cases of scarlet fever were 29 below the corrected average number; the greatest proportional fatality from this disease occurred in Hampstead, Hackney, St. Marylebone, Finsbury, Southwark, and Bermondsey. The 179 deaths from diphtheria showed a decline of 90 from the average number in the corresponding periods of the 10 preceding years; this disease was proportionally most fatal in Paddington, Fulham, St. Pancras, Islington, Stoke Newington, Hackney, and Camberwell. The 50 fatal cases of whooping-cough were 42 below the corrected average number; the greatest proportional mortality from this disease was recorded in Hammersmith, Fulham, Holborn, Stepney, and Lambeth. The 64 deaths referred to enteric fever showed a considerable decline from the average number; among the various metropolitan boroughs this disease was proportionally most fatal in Islington, Hackney, Finsbury, Bethnal Green, Poplar, Wandsworth, and Lewisham. The 252 deaths from diarrhoeal diseases were slightly in excess of the corrected average number; the proportional mortality from these diseases was highest in Finsbury, Shoreditch, Poplar, Southwark, Lambeth, and Deptford. In conclusion, it may be stated that the aggregate mortality in London from these diseases during October was more than 16 per cent. below the average.

Infant mortality in London last month, measured by the proportion of deaths among children under one year of age to registered births, was equal to 123 per 1000. The lowest rates of infant mortality were recorded in Chelsea, City of Westminster, St. Marylebone, Hampstead, Greenwich, and Lewisham; and the highest rates in City of London, Shoreditch, Bethnal Green, Stepney, Southwark, and Bermondsey.

## THE SERVICES.

### ROYAL NAVY MEDICAL SERVICE.

Fleet Surgeon Edward Ferguson has been placed on the retired list of his rank. Dated Nov. 11th, 1901.

The following appointments are notified:—Surgeon J. E. H. Phillips to the Royal Naval Hospital at Chatham.

Civil Practitioners: J. F. Mannix to be Surgeon and Agent at Cahirciveen and Kells and S. Davidson to be Surgeon and Agent at Helmsdale.

### ROYAL ARMY MEDICAL CORPS.

Captain R. E. Phillips has been selected for service with the South African Constabulary. The following time-expired officers in India will shortly return to England with invalids:—Lieutenant-Colonel P. J. Dempsey, Bengal; Major F. S. Le Quesne, V.C., Punjab; Captain H. S. Thurston, Bengal; Major J. C. Haslett, Bengal; Major C. S. Sparkes, Bombay; Captain T. W. Gibbard, Madras; Lieutenant-Colonel R. Blood, Bombay; Major R. J. A. Durant, Madras; and Captain C. E. Pollock, Bengal.

Lieutenant-Colonel T. B. A. Tuckey has been appointed Senior Medical Officer in charge of the Connaught Hospital and to command No. 2 Company at Aldershot, in succession to Lieutenant-Colonel Wilson, retired.

Lieutenant Brunskill has arrived at Sierra Leone and has been posted for duty.

Colonel J. L. Notter, late professor at the Royal Victoria Hospital, Netley, has been appointed Principal Medical Officer at Aldershot, in succession to Surgeon-General O'Dwyer.

### VOLUNTEER CORPS.

*Rifle*: 3rd Volunteer Battalion the Prince of Wales's Own (West Yorkshire Regiment): The undermentioned officer resigns his commission: Surgeon-Captain E. O. Croft.

### VOLUNTEER MEDICAL STAFF CORPS.

The Glasgow Companies:—James Bruce to be Surgeon-Lieutenant.

### VOLUNTEER OFFICERS' DECORATION.

The King has conferred the Volunteer Officers' Decoration upon the undermentioned officers of the Volunteer Force:—*Eastern District*: *Rifle*: 2nd (Hertfordshire) Volunteer Battalion the Bedfordshire Regiment: Surgeon-Captain

Richard Legg Batterbury. 3rd Volunteer Battalion the Bedfordshire Regiment: Surgeon-Lieutenant-Colonel David Thomson. *North-Eastern District: Artillery:* 1st Lincolnshire (Western Division, Royal Garrison Artillery): Surgeon-Lieutenant-Colonel Thomas Newby, retired. *Rifle:* 2nd Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment): Surgeon-Lieutenant-Colonel Alfred Chawner. *North-Western District: Artillery:* 1st Cheshire and Carnarvonshire Volunteer Artillery: Surgeon-Lieutenant-Colonel Edward James Lloyd. 7th Lancashire (the Manchester Artillery) Volunteer Artillery: Surgeon-Lieutenant-Colonel Richard Augustus Shelton Daly. *Scottish District: Artillery:* 1st Fifeshire Volunteer Artillery: Honorary Assistant Surgeon James Welsh.

#### MENTIONED IN DESPATCHES.

The following are mentioned in Lord Kitchener's despatches, published in the *London Gazette* on Nov. 15th: Captain F. W. Begbie, R.A.M.C., who, at Maatjesspruit on July 7th, 1901, behaved very gallantly in riding into Boer lines under continuous fire to attend to the wounded; Lieutenant W. H. Odum, R.A.M.C., for tending wounded under heavy fire at Draaihoek, Orange River Colony, on July 8th, 1901; Civil Surgeon J. Prentice, for going under very heavy fire to attend to a wounded man lying in the open, and for continuous good work; Major H. N. Thompson, R.A.M.C., who, near Jamestown, Cape Colony, on June 4th, 1901, went a considerable distance under fire towards the enemy's position to attend to Lieutenant Hogg has been conspicuous for good service throughout.

Corporal W. W. Weeden, R.A.M.C., who, at Bersefontein, Orange River Colony, on July 24th, 1901, rode some distance under fire to assist a wounded man lying in the open and stayed with him 20 minutes, being fired at all the time, has been promoted sergeant by the Commander-in-Chief.

#### SOUTH AFRICAN WAR NOTES.

Civil Surgeons Mackay, Stanley, Pomeroy, Sandalands, Howe, Davey, Worth, Lees, and Robertson are on passage home.

Lieutenant-Colonel C. W. Thiele, R.A.M.C., and Captain B. Forde, R.A.M.C., have been discharged from hospital to duty.

#### AFFAIRS IN SOUTH AFRICA.

There does not appear to be any unusual amount of disease among the troops serving in South Africa, but the list of those reported as dangerously ill—from enteric fever mostly—is still a long one. Although fresh outbreaks on any large scale are not recorded, this fever is widespread, for cases are reported from different places very far apart. It is to be feared that with the arrival at the Cape of susceptible material in the shape of reinforcements fresh from this country and the approach of hot weather there will be no decrease of its prevalence. The reports from the refugee camps are such as might have been anticipated. They show that the excessive mortality and sickness were not due to any want of care and effort on the part of the English authorities, but were largely attributable to unavoidable causes and to ignorance and neglect on the part of the Boers, whose customs and practices violate the most rudimentary laws of hygiene and occasionally even of decency. As regards the progress of the war the process of "wearing down" the enemy's opposition is slowly but surely going on and Lord Kitchener's reports are, on the whole, increasingly favourable. There is this to be said, that if terms could have been settled between the Boers and Lord Roberts it seems almost certain that war would have broken out again.

#### UNREGISTERED MEDICAL MEN AT THE CAPE.

A correspondent draws our attention to the following cutting from the *Cape Times* referring to a case in which a Dr. Sterne sued the Queen's Town Corporation for services rendered. The case was decided against him on the ground that he was not registered in Cape Colony as a medical practitioner, and it came out in evidence that he had only gone through a three years' course:—

SIR.—In your report of this week's issue of the legal case "Sterne v. Queen's Town Town Council," Mr. Van der Reit is said to have made the entirely erroneous statement that no American diplomas are recognised in this colony. No American diplomas are registered unless they indicate a period of five years' study, a most necessary provision, as every medical man knows. As a matter of fact, there are quite a number of registered American medical men at the Cape, hailing from universities which come up to the requirements I have just indicated. Another point in the case is that the military authorities were acting illegally in engaging

Dr. Sterne, even for their own work. The army regulations forbid the employment of any man not legally registered by the Medical Council of the United Kingdom, and, curiously enough, the requirement has been strictly enforced as regards Canadian graduates, although I personally know of another American graduate, and one only possessing the Staats Examen certificate of Germany who have been appointed to the military service.

As to the action of the Queen's Town Municipal Council, I cannot but think that that body must have had motive, not disclosed in the action, for contesting the claim. Otherwise its conduct is curious. It should be remembered, however, that the council ran some legal risk. If any person dealt with, on certificate from Dr. Sterne, liked to fight the council an action would certainly lie, as such certificate would be invalid, and the council would be responsible.—I am, &c.,

Cape Town, Sept. 24.

M.D.

#### THE NEW DIRECTOR-GENERAL OF THE ARMY MEDICAL SERVICE

The *Army and Navy Gazette* states that it is now generally understood that the new Director-General of the Army Medical Service will take up the office early in December, when he, with the Advisory Board, will have to carry Mr. Brodrick's scheme into execution. That scheme in its present form is capable of large modifications before being embodied in a Royal Warrant, and there is little doubt that such modifications will be carried out. Indeed, rumours point to a reassembly at an early date of Mr. Brodrick's Committee. It is satisfactory to know that Surgeon-General W. Taylor's early arrival in England will greatly facilitate the settlement of several knotty points. That Mr. Brodrick is in earnest in his desire to produce success is certain.

#### DEATHS IN THE SERVICES.

Surgeon-General William G. N. Manley, C.B., V.C., at his residence at Cheltenham on Nov. 16th, aged 70 years. He served in the Crimea, the New Zealand War, the Afghan War, and the Egyptian Expedition of 1882. He was also with the British ambulance during the Franco-Prussian War of 1870-71, and received the Iron Cross and other German decorations, as well as a French decoration. He obtained the Victoria Cross for gallantry in New Zealand. He entered the Army Medical Service in 1855 and retired in 1884. Further particulars of his life and work will be found in our obituary columns.

#### VOLUNTEER MEDICAL STAFF CORPS RELIEF FUND.

The sum subscribed for this fund according to the report just issued amounts to £293 14s. 10d., which, with a donation from the Woolwich Companies sent direct to Aldershot, make a total of £314 15s. 9d. The whole amount collected, with the exception of the cost of postage and stationery, was handed over to the Royal Army Medical Corps Depot Mobilisation Fund. It has been decided to close the fund for the present.

## Correspondence.

"Audi alteram partem."

### A CASE OF PESTIS MINOR IN LONDON.

To the Editors of THE LANCET.

SIRS,—I thought you might be interested in a few particulars of the case lately under my care in the West London Hospital which has been referred to in the daily papers as "a supposed case of plague." The man came to my out-patient room on Monday, Nov. 11th, complaining of lumps in his groins. He had two large, very tender buboes in those situations for which no surgical cause was apparent. On questioning him he stated that he had been suffering from, and had then, severe pain in his back, that he had had for some days a splitting headache, also some shivering but had not vomited. His tongue was covered with white fur and was red at the tip and edges; the spleen could be felt easily; the conjunctivæ, especially one, were injected. He had been in bed several days during the previous week. He had tried to work that morning, but had to give up. His temperature was 101° F. Some slightly enlarged glands could be felt in the neck and axilla. He stated that he was a lighterman and worked on a barge on the Thames and was engaged in unloading merchandise from the Baltic. Three weeks previously he had a fall and thought that the buboes started then, but he had become much worse the previous Monday and had to knock off work; he felt too ill to keep about and had to go to bed for several days.

I sent him into the hospital with a diagnosis of "pestis minor." Dr. Donald Hood kindly saw him and considered that the case was very suspicious and should be isolated. When I arrived home I telephoned to Mr. J. Cantlie who was at once very interested. I called on him and explained the case; we called for Mr. Shirley Murphy and went down to the hospital. After examining the man Mr. Cantlie agreed with my diagnosis and took some blood from one of the buboes to submit to Dr. Klein for bacteriological examination. In spite of the care taken by myself and those working with me to keep the matter secret it soon got into all the daily papers. I have just received a letter from Mr. Shirley Murphy in which he says that Dr. Klein reports that the patient must be definitely regarded as not suffering from plague, so the original diagnosis of "pestis minor" was evidently the correct one.

I am, Sirs, yours faithfully,  
Manchester-square, W., Nov. 18th, 1901. ASLETT BALDWIN.

## THE LONDON LICENTIATES' AND MEMBERS' SOCIETY.

To the Editors of THE LANCET.

SIRS,—A society with the above title has been formed with the hope that by combination it might be possible to bring about some improvement in the status and future prospects of the status of the Licentiates of the London Royal Colleges; it is a modest society with no other aim or object in life than the above, and I trust I may claim your sympathy for its objects. It has hitherto held no meetings, nor does it propose to bother Licentiates with more than are just enough to formulate a line of policy and possibly to elect a small committee to make an effort to carry such policy into effect. A meeting has, however, now been arranged to take place at 4.30 P.M. on Friday, Nov. 29th, at the Wimpole Hotel, 63, Wimpole-street, to which are invited all Licentiates of the London Colleges, whether members of the society or not, and at this meeting it is hoped that a plan of action may be determined on.

The one which seems to offer the best possibilities is to appeal by petition to the Royal Colleges to take into consideration the question whether they cannot by arrangement with the new University of London supply the latter with the first body of undergraduates applying to be admitted, say, to its final examinations (the question was recently raised in your columns, "Where are the undergraduates?"). Some such arrangement would seem to be rendered possible by the statutes of the University which explicitly state that it may coöperate with the Royal Colleges in promoting the objects for which the new University was established. If any better scheme occurs to anyone it is hoped that he will bring it forward at the meeting. As treasurer of the society I have promised to take the chair at the meeting and I hope to be generously supported.

I am, Sirs, yours faithfully,  
Nov. 19th, 1901. FRED. J. SMITH.

## SOME REMARKS ON SCURVY.

To the Editors of THE LANCET.

SIRS,—In Rhodesia amongst the natives one finds a large amount of scurvy prevalent at certain seasons; it is to be seen, however, all the year round during bad times when food is scarce; at home, nowadays, one so rarely sees scurvy that some points in my experience of this disease may be found to be of interest. I may mention that the disease with which African scurvy is most frequently confused is "beri-beri." In some books of African travel I have seen a disease called "bastard beri-beri" mentioned as prevalent in Uganda; I have no doubt that it is really scurvy. A native affected presents himself for relief complaining of swollen and painful legs. He moves with great difficulty and is short of breath; the legs are very tender to the touch, so much so that when I saw my first case I thought that I had acute periostitis to deal with. The temperature is frequently raised and the spongy bleeding gums are by no means so constant a feature as the text-books say. Sometimes epistaxis is the prominent symptom—a very fatal form and for that reason much dreaded by natives—so profuse and persistent that nothing less than plugging the whole nasal cavity will arrest it; sometimes it is a pneumonic form—whether it is a true pneumonia, however, is doubtful, and

one rather inclines to the idea that it is due to hæmorrhages into the air cells; hæmorrhagic joint effusions are also common. Death usually occurs from cardiac failure. When I first treated these cases some four years ago on lines suggested in text-books I found that all my patients died, lime-juice, fresh vegetables, and various drugs proving quite useless. Since then I have paid a good deal of attention to the affection; my regret is that native superstition has prevented post-mortem examinations.

I have noticed that it is at the beginning of the rainy season that the largest number of acute cases are seen, and they continue to appear till the rainy season is over. This is not a direct climatic consequence, but may be accounted for by the fact that by the middle of the preceding dry season all the fresh vegetable food is finished, the herds are thin and poor, milk and fresh meat are therefore unobtainable, and it is not until the end of the rainy season that the natives are able to get these things, so that for a period of over six months they are obliged to live on dried grain of different sorts. Another point of interest is that in all the cases I have collected this season I have inquired into their habits of eating tainted meat, and found that they all with one exception ate meat whenever they could get it, good or bad. Whether Professor Torup's theory, however, is borne out I am inclined to doubt. A native will gorge on fresh meat as long as it remains fresh, and will continue doing so even when it is tainted, until none remains, irrespective of flavour, and in spite of all he does not get scurvy. I have seen meat cut in strips green with putrefaction serving together with porridge for the daily diet of a crowd of Zambesis who were under my observation for six months, but no scurvy broke out. It would seem that want of fresh meat in any form is the most potent factor—"bully," or salt beef, neither protects against nor cures the disease. Scurvy is always seen in the raw native; I have never seen a half-breed affected yet. The latter always lives up to his income and buys everything that the white man does, rarely living solely on meal in the form of porridge as the raw native does.

During 1900 several interesting papers appeared in the different medical journals—unfortunately, I am unable to give the references—and the causation and treatment chiefly were discussed. With regard to treatment, one gentleman advocated fresh meat juice, and I am satisfied that this or fresh meat is the proper treatment, and it would seem that want of fresh meat is the principal factor in the causation, generally coupled with hardship or privation. I give now in tabular form the points I have mentioned as obtained from the very severe cases treated as inmates of the native hospital here last season:—

Race.	Length of time since leaving kraal.	Whether eating tainted meat or fresh or both.	Amount of meat eaten since leaving kraal.
'Mtebele ... ..	5 months.	Both.	None.
'Msuto ... ..	1 year.	"	Very little.
Gugunyanya ... ..	4 months.	Fresh meat only.	None; only bully.
Mnyambaan ... ..	4 "	Both.	None.
'Msuto ... ..	6 "	"	"
'Mshangaan ... ..	6 "	"	Very little.
'Msuto ... ..	1 year.	"	"
'Mshangaan ... ..	6 months.	"	None.
'Mshangaan ... ..	4 "	"	None; only bully.
'Msuto ... ..	5 "	"	None.
'Msuto ... ..	3 "	"	"
'Msuto ... ..	6 "	"	"

All these cases were treated with fresh meat daily, fresh vegetables, sugar, and coffee, in addition to the regular native diet—mealie meal porridge—and all recovered. I then wished to find out which article of diet was the really important one, and remembering the article above-mentioned decided to put the next patient on fresh grilled meat. Shortly afterwards a 'Mshangaan native was brought to me with swollen painful legs, spongy bleeding gums, small rapid weak pulse, painful thorax, rapid respiration, and all the physical signs of pneumonia—a very bad case indeed. I gave this man half a pound of fresh meat grilled morning and evening for three days. A general improvement in all his symptoms was manifest even then. He was then allowed his ordinary

allowance of mealie meal porridge in addition to the meat as he asked for it and I did not see that his having it would affect the validity of the test. He remained on this diet till his discharge from hospital some three weeks later. I purposely stopped vegetables in his case. Two other cases have been treated on the same lines since with marked success.

Another point I have noticed is a curious latency of this disease which an accident appears to bring into life. I will cite a couple of instances. A native broke his leg; it was immediately put into splints; next day he had a huge blood blister at the seat of fracture. I examined him for scurvy but could find no other sign; when the fracture was taken down at the end of seven weeks no union had taken place. Next day the leg was swollen and painful, and a few days subsequently the characteristic gums appeared. Evidently scurvy was in the system at the time of the accident, although no signs showed except the superficial blood blister. Recently an accident occurred in one of the mines. A native sustained a compound depressed fracture of the skull and fractured thigh; after the necessary operative measures had been taken and the patient had been in hospital for five weeks one day his gums were found bleeding. This was quite a recent development, for on admission I had examined especially for scurvy, knowing how hopeless surgical cases are likely to be when affected in this way. A day or two afterwards he had a profuse hæmorrhage into the bladder. He was at once put on one pound of fresh-grilled meat daily and did well, being able to go about 10 weeks from the date of the accident. Fresh meat-juice has been used, I am aware, in scurvy rickets in children, and no doubt in scurvy in a few cases in Europe, but the importance of fresh meat in the prevention and cure of the disease has hardly been sufficiently emphasised or demonstrated in Africa where the disease is so common, especially on the mines.

I am, Sirs, yours faithfully,

Rhodesia, June, 1901.

WILLIAM REDPATH, M.B. Lond.

## EFFICIENT VACCINATION.

*To the Editors of THE LANCET.*

SIRS,—It seems an extraordinary thing that in the country of the foundation of vaccination it is almost impossible to get reliable vaccine, or certainly not when it is most wanted—on the outbreak of an epidemic of small-pox. In September and October, when all our patients were requesting revaccination, we private practitioners sought for vaccine from the usual trade advertisements, for to us is declined the Government lymph. (Hearsay evidence says that even the Government lymph is no more reliable than that available by trade advertisement.) A great many like myself soon noticed that hardly any of the patients "took" in the slightest way. Then came a period in which arms that were vaccinated did take, but exceedingly late—i.e., after 14 days; and latterly the vaccine has begun to take very well in the normal way—viz., soon after the third day in revaccination and soon after the fifth day in primary vaccination. Now all this points to the fact that since the introduction of glycerine we are subjected to all varieties of dilution, and the trade, to meet the sudden demand, have played us false by stretching their supplies instead of honestly declining to alter their original standard strength. Some of my medical friends profess to have been getting a French vaccine which is marvellous, but when I hear of any vaccine taking so superbly in every arm I am inclined to think there are other germs besides those of vaccinia; in fact, in one case I heard of eight in family being all ill in bed with such bad (or so-called good) arms. My own feeling is that if I cannot get good lymph in England I shall give up advising anyone to be vaccinated. But surely Government must be forced to supply everyone with a standard lymph. Every large city or the capital of every county should have a calf vaccine establishment under Government control. Medical men who are not public vaccinators are quite willing to pay for the lymph, but what we want is an absolutely standard vaccine. Owing to this recent supply of useless lymph many people look upon us as incapable vaccinators or, still worse, as taking fees under false pretences.—I am, Sirs, yours faithfully,

J. KINGSTON BARTON.

Courtfield-road, Gloucester-road, S.W., Nov. 18th, 1901.

## THE ETHICS OF THE PUBLIC VACCINATOR.

*To the Editors of THE LANCET.*

SIRS,—Will you allow me as a public vaccinator to protest—and in doing so I am sure I am voicing the feelings of others—against the circular to which you referred last week?

A few days ago I received a notice asking me to join the association, but on reading the paragraphs to which you allude I at once threw it into the waste-basket. Next we shall be asked to put public vaccinator on our plates, or, better, on a coloured lamp. For a body of men to issue such a circular in the name of the public vaccinator is an impertinence which I for one resent most strongly. Unfortunately, the more respectable members of the profession who happen to be public vaccinators will be tarred with the same brush as the gentlemen responsible for the proclamation. It is disgusting and degrading.

I am, Sirs, yours faithfully,

Guiseley, Yorks, Nov. 18th, 1901.

W. H. CHEETHAM.

*To the Editors of THE LANCET.*

SIRS,—It is quite evident that the private vaccinator is aggrieved by the working of the present Act and has some cause for complaint. If it were the duty of the vaccination officer to ascertain the cases in which free vaccination is required and a list of these cases only were sent to the public vaccinator the grievance would cease to exist. The onus of refusing vaccination should rest on the parent or guardian and be decided by his or her statement to the officer. The present system leads to unnecessary professional, or possibly unprofessional, visits and to ambiguity in the legal position. The business of the public vaccinator should be to vaccinate, certify, and nothing more, and his fee ought to be adequate to the work involved. The "calling to offer to vaccinate" is most objectionable and in this lies the chief offence. At the same time if private vaccinators wish to hold their own they must all adopt aseptic precautions. I find that the public are beginning to recognise the sealing up of the vesicles from contamination as a less objectionable method from their point of view. I have now for some time used a small pad of alembroth gauze held in position by a strip of simple holland plaster, which can be cut to the shape of the arm, and have found this dressing satisfactory to the patients and myself. The gauze is renewed on the eighth day, with instructions that if irritation or discharge appear the child is to be brought for inspection. In a very small number of cases I have found it necessary to do a few subsequent dressings with the addition of some antiseptic powder. If the private vaccinator does not adopt precautions in sterilisation and dressing his results will tell against him and, while admitting his grievance, I think in this matter he might learn something from the instructions of the Local Government Board.

I am, Sirs, your faithfully,

Loughborough, Nov. 16th, 1901.

J. B. PIKE.

*To the Editors of THE LANCET.*

SIRS,—You give great prominence<sup>1</sup> to a letter from a "General Practitioner," which deals with circumstances which are surely peculiar to a particular district. They do not prevail universally, and as a public vaccinator myself I protest against serious accusations being hurled at a branch of the profession broadcast when they can only apply to isolated examples.

It is quite easy to answer the questions asked if you know the exact wording of the Vaccination Act, which I strongly suspect "General Practitioner" does not. 1. A public vaccinator can claim no payment for vaccination of persons residing outside his district. It is therefore clear that he will not perform such operations except in the case of private patients, who will themselves pay him. No grievance can be made out of this. 2. A public vaccinator cannot "charge the authorities" for work done by any person except himself, or, in case of emergency, by his registered deputy. 3. A public vaccinator should not tout for cases. If heads of firms require interviewing in the interests of public health for revaccination of employes this is the duty of the medical officer of health. The public vaccinator is nowhere authorised to vaccinate

<sup>1</sup> THE LANCET, Nov. 9th, p. 1300

any cases save those which voluntarily apply to him. 4. Revaccination is not compulsory, and every adult can please himself by whom he is revaccinated, or whether he is revaccinated at all, or not. 5. No public vaccinator has any power to make "a house-to-house inspection." He could be kicked out as a trespasser. 6. Such a procedure as suggested would be highly improper and the public vaccinator would be liable to action by the parents for assault upon the children. The position, however, could only possibly arise in a population of unvaccinated children, such as, I hope, is extremely rare. 7. The fees are the same everywhere: 5s. for primary vaccinations at the patients' homes, inclusive of all extra visits and treatment, and 2s. 6d. for revaccinations of adults at any place agreed upon. There is power for authorities to give mileage allowance as well; but few do it.

In conclusion, Sirs, let me advise "General Practitioner" and other complainants to get (from Messrs. Eyre and Spottiswoode) a copy of the "Amended Regulations," dated Oct. 18th, 1898, issued by the Local Government Board, and they will find there the solution of all their difficulties, without needing to write letters in THE LANCET.

I am, Sirs, yours faithfully,

Nov. 11th, 1901.

G. P. AND M. O. H. AND P. V.

#### To the Editors of THE LANCET.

SIRS,—I think it only fair to the public vaccinators to point out that the Public Vaccinators' Association represents exactly 10 per cent. of the public vaccinators; its membership being 300 and there being 3000 public vaccinators. I have no doubt that the vast majority of public vaccinators would join with me in repudiating the proclamation and in thinking that a proclamation in any form is in bad taste and uncalled for.

I am, Sirs, yours faithfully,

Nov. 16th, 1901.

P. V.

#### To the Editors of THE LANCET.

SIRS,—I was much interested in your leading article in THE LANCET of Nov. 16th on the relations existing between the medical profession and the public vaccinator. I am, and have been for the past 20 years, one of those individuals who it appears are accused of "poaching upon the patients of their professional brethren." I may as well state in the first place that I am not a member of the Association of Public Vaccinators for England and Wales. As regards the proclamation which was published very widely in the lay press on Nov. 9th by the Association of Public Vaccinators I feel that owing to the sentiments of professional jealousy which obtain at the present time toward the public vaccinator it was possibly indiscreet on the part of the association to publish the proclamation in question; at the same time I fail to see any reason why the proclamation should be withdrawn. With one exception it contains nothing but what is embodied in the Act of Parliament and the regulations of the Local Government Board relative to vaccination. The exception to which I allude will be found in "the offending third clause of the circular of the organising secretary of the Association of Public Vaccinators for England and Wales," which states that public vaccinators are "compelled to use that lymph in all cases of vaccination and revaccination in their own district." This is not the fact. Public vaccinators are at liberty to employ any alternative supply of lymph they may think fit provided it is glycerinated calf-lymph, and they (the public vaccinators) assume all responsibility as to quality, &c. My experience of the glycerinated calf-lymph issued by the Local Government Board is that such lymph is perfectly unreliable and is therefore to be avoided, and if used will cause a great amount of extra trouble and anxiety.

Regarding the ethics of the public vaccinator, my opinion is that they compare very favourably with those of the so-called private practitioner. In my neighbourhood the "private practitioner" does not scruple to vaccinate in only one or two insertions, but performs the operation *gratuitously*, which practice I think approaches, if not attains, the art of "poaching."—I am, Sirs, yours faithfully,

A PUBLIC VACCINATOR OF TWENTY YEARS' STANDING

Nov. 16th, 1901.

#### SOCIETY OF APOTHECARIES v. PURDUE.

##### To the Editors of THE LANCET.

SIRS,—The attention of the Society of Apothecaries has been drawn to the very misleading reports of this case which have appeared in the daily papers. These reports, which are

considerably abbreviated, would seem to leave the impression that the defendant, who described himself as a registered herbalist and against whom proceedings were taken by the Society under Section 20 of the Apothecaries Act, 1815, was protected by the Act of 34 and 35 Henry VIII., c. 8, sometimes, though without authority, referred to as the Herbalists Act, and that the provisions of the latter Act practically ousted those of the Apothecaries Act. This is quite inaccurate.

The Act of Henry VIII. was certainly discussed in argument, but its application to this case was clearly refuted by the Society's counsel, though he was unable, as is the fact, to show that the Act had been expressly repealed. The learned county court judge, however, in giving judgment for the defendant, in no way purported to base his decision upon the Statute of Henry VIII., but simply held, as a jury (had there been one) might have held, that the evidence adduced did not show that the defendant had practised as an apothecary—that is to say, his judgment was based not upon a question of law but upon one of fact. The case, therefore, can under no circumstances be quoted as a precedent against the Society, nor can the learned judge's decision be considered as ruling that a herbalist, or any other unqualified medical practitioner, by virtue of the Act of Henry VIII. to which I have referred, may practise as a qualified medical man. I may also add that a county court judgment even in courts of coördinate jurisdiction is never recognised as a binding authority, and *a fortiori*, of course, not in the higher courts.

In conclusion, I may say that the question of an appeal is being seriously considered by the Society, but in any event the result of the case above referred to will not cause the Society to relax in the slightest degree its efforts to repress unqualified practice.—I am, Sirs, yours faithfully,

A. MOWBRAY UPTON,  
Deputy Clerk.

Society of Apothecaries of London, Blackfriars, London, E.C.,  
Nov. 19th, 1901.

#### THE FORTHCOMING ELECTION OF DIRECT REPRESENTATIVES.

##### To the Editors of THE LANCET.

SIRS,—I have sent the following letter to each of the candidates for the vacant seats on the General Medical Council, and also to Mr. Victor Horsley. The answers are given below. May I ask you to insert them in your next issue.

I am, Sirs, yours faithfully,

Fellows-road, N.W., Nov. 19th, 1901.

F. R. HUMPHREYS.

##### Re the Election to the General Medical Council.

DEAR SIR,—It has been suggested in the correspondence columns of the *British Medical Journal* that, with a view to quickly settling the midwives question, all the medical practitioners of Great Britain should decline to go when summoned to obstetric cases of difficulty or danger when it is known that a midwife is or has been in attendance. This suggestion is already being acted upon.

May I ask whether, in the event of your candidature proving successful, you will, in the interests of humanity and of our common profession, discountenance any such action on the part of medical men, whether concerted or otherwise?

As I propose sending your reply to the medical papers, may I trouble you to put it in as concise a form as possible?

Yours very faithfully,

Nov. 16th, 1901.

F. R. HUMPHREYS.

P.S.—As the time is very short may I suggest a telegram in reply.

##### REPLIES.

Dr. S. Woodcock telegraphed:—

Strongly discountenance such action. Will write.

His letter follows:—

When speaking at Stratford on the 8th inst. I expressed disapproval of concerted action on the part of medical men such as that to which you allude in your letter. I said that this attitude was not high-minded nor patriotic, neither calculated to gain the ear of Parliament nor the sympathy of the public, but was rather likely to promote legislation that would be unwelcome to the profession.

Dr. Hayward telegraphed:—

Heartily condemn such proceedings as unreasoning cruelty. Writing further.

In his letter he said:—

I cannot imagine any member of an honoured profession wilfully endangering the life of any woman in labour by refusing to assist her in any difficult or dangerous situation simply because a midwife has been in attendance. This shows a want of common sense, in my opinion, as, in blind revenge on midwives in general, the men so refusing endanger the lives of poor women, and I hold that if any man refuses to attend and there is no time or opportunity to get other help, the man is really culpable for any danger which comes to the patient.

and if fatal results occur is morally guilty of manslaughter. While doing all in my power to place obstetric nurses in their proper position, under the direct supervision of some qualified and registered medical man in all cases, I should most heartily condemn anything like systematic cruelty to poor women in danger, as even if its results were what is evidently desired I consider it would be an unwarrantable cruelty.

Mr. George Brown replied as follows:—

I am much surprised that you should deem it necessary to ask such a question as, in your letter of the 15th inst., you have made yourself the mouthpiece. It has been my invariable custom since I have had the honour of belonging to the medical profession, if well enough, to go to all cases of midwifery emergency, regardless of the question of payment or who may have been in attendance. After well-nigh 30 years of practice I certainly should not say or do anything contrary to my established rule, whether successful or unsuccessful at the forthcoming election.

Fearing that Mr. Brown had misread my letter I wired as follows:—

Please reply to my only question—your attitude, if re-elected, towards medical practitioners acting as mentioned in my letter.

In reply I received a note as follows:—

I wrote and posted reply to you about two o'clock this morning. I am overwhelmed with work and find it very difficult to reply to all my correspondents.<sup>1</sup>

Mr. George Jackson answers as follows:—

In reply to yours received to-day I may say that I do not approve of the method suggested and could not countenance it in any way. At the same time, I think a medical man is quite justified in demanding that the midwife should retire from the case before he undertook it, especially if it was known that she habitually exceeded her duties.

Up to the time of writing no reply had been received from Mr. Victor Horsley.

To the Editors of THE LANCET.

SIRS,—As the election of a Direct Representative for Scotland to the General Medical Council only takes place once in five years and as it is now upon us the present is a time of considerable importance in the medical world. Three candidates solicit our suffrages. Of Dr. Norman Walker I know little either for or against, except that he is an Edinburgh consultant and therefore probably unsuitable for representing the profession, 95 per cent. of whom consist of general practitioners. By consultant, so far as this letter is concerned, I mean either a consultant proper or a general practitioner with hospital appointment who seeks to attain consultant or quasi-consultant work. Of the other two candidates, Dr. W. Bruce of Dingwall, the present representative, is also practically a consultant. The third candidate, Dr. C. E. Robertson, is a general practitioner in Glasgow. It is significant to observe how the caste of the latter two candidates is reflected in the *personnel* of their committee and supporters. Dr. Bruce's partisans consist largely of West-end consultants, who are concerned mainly with the conservation of their caste privileges and not with the welfare of the general practitioner. Dr. Robertson's supporters, on the other hand, consist almost wholly of general practitioners. It will thus be seen that the forthcoming election practically resolves itself into a battle between the consultants on one side and the general practitioners on the other. Now I desire to express most strongly my opinion that we have been too long under the rule of the consultant fraternity, and that medical politics have suffered gravely in consequence. The very fact that the members of this order are strenuously supporting Dr. Bruce should in itself be a strong reason for the rank and file of the profession to vote for Dr. Robertson, who is one of themselves, and accordingly is intimate with the exact nature of their grievances and requirements. Moreover, out of the seven members who are sent from Scotland to the General Medical Council six, in whose election the bulk of the profession have no voice, are consultants; with the exception of the Crown nominee these are elected by close corporations of the more highly favoured members of our profession, who, of course, take good care to return one of their own caste. Surely then, if these exalted and favoured few are allowed to return six out of seven members, the general practitioners are entitled to return the seventh.

Although Dr. Bruce professes to be solicitous for medical reforms that would improve the position of the general practitioner, yet when a specific case comes before the Council he is found on the side of the party at present in power. In the *British Medical Journal* of Dec. 22nd, 1900, Dr. Bruce, referring to the then recent and now notorious

case of Dr. J. M. Thomson of Airdrie, which involved issues of vital importance to hundreds of medical practitioners in Scotland, while ostensibly condemning the action of the Pharmaceutical Society, actually admits that he voted along with the other Direct Representatives for the prosecution. His exact words are: "And yet in this particular case, if I am not mistaken, all the Direct Representatives—however unwillingly—voted for prosecution, as the offence libelled seemed to them a scandal against the profession as a body and one that had either to be proved or disproved at the earliest possible moment."

In view of these facts and considerations it should not be difficult for the electors, the great bulk of whom are general medical practitioners, to choose between the nominee of the professional oligarchy and the popular candidate who will protect their interests and vindicate their rights.

I am, Sirs, yours faithfully,

Nov. 8th, 1901. JAMES FORRESTER, M.B., C.M. Glasg.

To the Editors of THE LANCET.

SIRS,—Of the three Scottish candidates for the position of Direct Representative to the General Medical Council Dr. Norman Walker alone in his address expresses his views regarding the anomalous position of the Scottish parochial medical officers, he being in favour of a more secure tenure of office for these medical officers. I trust that Dr. Bruce and Dr. Robertson will also give us their views regarding the grievances of the Scottish parochial medical officers and especially of those in the remote Highlands and islands. Other things being equal, I should advise all those medical officers in the remote parishes who signed the memorial recently presented to Parliament to vote for the candidate who is most in favour of the reforms we desire.

I am Sirs, yours faithfully,

JAMES F. D. MACARA, M.B., C.M. Glasg.,  
Medical Officer, Dumess, Sutherlandshire, N.B.

Nov. 18th, 1901.

To the Editors of THE LANCET.

SIRS,—I have been hoping week by week to see in your correspondence columns some expression of what I have reason to believe is a very general opinion concerning the forthcoming election of Direct Representatives. It will be remembered that in 1886 the profession came to the deliberate conclusion that of the three Direct Representatives allotted to England and Wales justice demanded that at least two should be practitioners resident in the provinces. To this conclusion effect was duly given by the return of Sir Walter Foster and Mr. Wheelhouse; and the same just division of the representation was again accorded in 1891. By a series of accidental circumstances in 1896 and 1897 it fell out that the whole three representatives of the profession were London practitioners—a result which has ever since been felt to be most anomalous and, indeed, most unfair to our provincial brethren. The retirement of Dr. Glover simplifies the present position immensely, because the great respect so generally felt for him would probably have led to his return if he had again become a candidate, and thus, in some degree, to a continuance of the anomaly and injustice above referred to. Now the ground is clear; and I am sure that I am voicing the opinions of many in suggesting that every practitioner in London should on the present occasion make a special point of recording his votes for the two provincial candidates. There is no need to introduce the slightest element of personality into a matter which should only be considered on the basis of justice, fair play, and indisputable principle. It would be, in my humble judgment, a most undeserved disrespect to our provincial brethren were it suggested that they do not possess gentlemen of such high honour and ability amongst themselves as to make admirable representatives of the whole profession. I feel sure that they would scout the idea that it is necessary for them to depend upon men resident in London to obtain fit representatives of their views and wishes. It may, therefore, be safely assumed that every provincial practitioner, without exception, will on this occasion vote for the two provincial candidates, and I would venture to suggest that it would be a kindly and a courteous action if a number of leading practitioners in London would sign a letter for publication in your columns expressing their intention to

<sup>1</sup> Mr. Brown has written to us protesting against such questions being put to him.

give their votes and support also to those candidates on the *primâ facie* grounds of justice to which I have alluded.

I am, Sirs, your obedient servant,

Nov. 12th, 1901.

F.R.C.S.

To the Editors of THE LANCET.

SIRS,—In my opinion one paragraph of Dr. C. E. Robertson's letter to the medical practitioners of Scotland is worthy the attention of those of England. I refer to the recent action of the General Medical Council with reference to registered practitioners fined under the Pharmacy Act. As he says, when a chemist's assistant is fined under that Act, as is frequently the case, the chemist hears no more of the matter, and why should a medical man be more punished for a breach of the Pharmacy Act than those who are qualified under that very Act? I do not uphold medical men breaking this Act and I do not sympathise with them when they are fined for doing so, but I do consider it an arbitrary abuse of authority to try to stretch the "infamous conduct in a professional respect" clause into covering a thing that has nothing to do with professional conduct. If I knew which of the English candidates were opposed to the action of the Council in the recent Thompson case, where a medical man was threatened with erasure from the Register because his assistant was fined under the Pharmacy Act, I would certainly vote for them and I know that several of my professional acquaintances in this neighbourhood feel as I do in the matter. Perhaps it is not too late to ask the English candidates their views on the subject.

I am, Sirs, yours faithfully,

Deptford, S.E., Nov. 15th, 1901.

AN APOTHECARY.

### THE PLAGUE.

To the Editors of THE LANCET.

SIRS,—It seems expedient in view of present knowledge to admit that recrudescence of plague in a city with accompanying affection of the rats means that the disease is probably present as an epizootic and that its further spread is independent either of the sanitary condition of the locality where the sporadic human cases have happened to occur or of the incubation period of plague in the human subject. "Contacts" now mean not those who have been exposed to human plague, but those who may become exposed to rat-infection. If every affected rat has been destroyed the disease will disappear: if not its future course will probably follow the slow history of all such outbreaks—an apparent cessation for weeks or months, the rat-infection spreading meanwhile, then a sporadic human case or cases in some fresh locality where opportunity occurs for rat-infection of the occupants of defective premises, and so on. Destruction of rats as a method of preparation against invasion is obviously indicated in every district, but it is practically impossible to disturb the public apathy until invasion occurs, when it is too late. Mr. Wynter Blyth suggests a crusade by sanitary authorities directed towards the rectification of defects in basements of premises permitting access of rats. Such a crusade is highly necessary in the case not only of grain warehouses and riverside premises, but of private dwellings, and, setting plague aside, could result in nothing but good in districts adopting the suggestion.

I am, Sirs, yours faithfully,

D. S. DAVIES, M.D. Lond.

Medical Officer of Health of Bristol City and Port.  
Public Health Department, Bristol, Nov. 11th, 1901.

To the Editors of THE LANCET.

SIRS,—I have read the notice in THE LANCET of Nov. 9th (p. 1283) of the *first suspected case of plague* in Liverpool. Without attempting to controvert the accuracy of the diagnostic suggestion, I would point out that the description of symptoms and physical conditions will correspond exactly with those of the "fever of over-exertion" of which my original description was brought before the (now Royal) Academy of Medicine in Ireland in 1887—with the complication of "constitutional bubo," which is also a pathological entity of Irish enunciation, having been first described by the late Mr. Abraham Colles of Dublin in the earlier part of the nineteenth century. I know of an exactly similar case which occurred in the person of a medical man of great mental energy whose muscular nutrition had been allowed to run down during a long period of sleepless nights. He performed some muscular over-exertion and was feverish next

day, with a temperature of over 103°F. The glands in the right groin became inflamed, suppuration occurred, the convalescence was very slow, but no surgical operation was performed, and the patient is now living. I would very much like to know whether the victim of "suspected plague" was a trained athlete or a mere novice at football. The fever of over-exertion described by me is usually seen in persons who make some severe continuous effort when in bad muscular training. I am, Sirs, yours faithfully,

Dublin, Nov. 13th, 1901.

JOHN KNOTT, M.D. Dub.

### MILK OR WHEY IN ENTERIC FEVER?

To the Editors of THE LANCET.

SIRS,—I feel it necessary to apologise for again trespassing upon your valuable space, but the paper of Mr. Prideaux Selby in THE LANCET of Nov. 2nd, p. 1182, upon the dietetic treatment of enteric fever, and his remarks upon the danger of overlooking the teachings of morbid anatomy seem to me to be of interest and importance. It is well known that ulceration in enteric fever is most marked almost immediately above the ileo-cæcal valve. On several occasions I have seen ulceration limited to the Peyer's patch in that situation, and in one instance, although ulceration was strictly localised to a Peyer's patch about four inches above the ileo-cæcal valve, perforation had taken place. The frequent severity of the ulceration in this situation suggests that the holding back of bacilli-laden fæces by the ileo-cæcal valve gives the microbes time to attack and destroy the lymphoid structures. A case of enteric fever where constipation had been extreme is instructive when viewed in this light. The large intestine was full of very hard fæces and ulceration had occurred from the cæcum almost to the anus. The ulceration in places was so extensive that the entire wall of the colon had been removed over areas which together must have measured between two and three square inches, yet owing to the hard nature of the fæces peritonitis had been delayed. Even the micro-organisms normally present in the intestines may sometimes produce ulceration when there is stasis of fæces. In 1899 I exhibited before a meeting of the Bristol Medico-Chirurgical Society a portion of the ileum from a case of intestinal obstruction, in which the coil that had been strangulated showed ulceration of Peyer's patches and of the solitary follicles, bearing a close resemblance to the ulceration of enteric fever. It may be added that the ulceration of the cæcum so frequently present in cases of obstruction of the large intestine is another example of the power of micro-organisms present in fæces to attack the intestinal wall. In enteric fever it is not merely, however, severe ulceration which one has to fear as a result of abundance or slow movement of fæces. Morbid anatomy indicates that septic absorption takes place chiefly from the lower few inches of the ileum, since it is in the mesenteric glands in immediate relation to this small portion of the intestine that swelling, or it may be sloughing or suppuration, generally occurs. We may not be able to kill the bacilli when they have obtained entrance to the body, but the situation of the intestinal lesions seems to suggest that if the bacilli could be deprived of nourishment, or if they could be continually hurried past the junction of the small and large intestine, their power of doing harm would be much diminished. In other words, the situation of these lesions suggests that the diet should be as free as possible from organic substances which will not be readily absorbed and that anything approaching to constipation should be carefully combated. This opportunity may be taken of making a suggestion in connexion with intestinal antiseptics. Petroleum emulsion seems to be of some value as an intestinal antiseptic in children. Dr. Robert Hutchison has shown that it is not absorbed, and being therefore harmless it could be used in considerable quantities. Possibly it might be found to be of service in enteric fever.

I am, Sirs, yours faithfully,

Clifton, Bristol, Nov. 9th, 1901.

THEODORE FISHER.

To the Editors of THE LANCET.

SIRS,—In reply to the question asked by Mr. Prideaux Selby on p. 1186 of THE LANCET of Nov. 2nd as to the diet of enteric fever patients at Maidstone I may say that at the West Kent General Hospital, where about 80 of the more

severe cases were treated, the diet was, almost without exception, one of pure milk. This alone was given until the temperature had remained below 99° F. for a period of 10 days. As we only admitted cases of especial severity our mortality exceeded the total rate considerably, 12.5 per cent. Many of the deaths were from pneumonia soon after admission; only one relapse occurred, and intestinal complications were remarkably few in view of the gravity of the cases.

I am, Sirs, yours faithfully,  
FRED. T. TRAVERS, B.S. Lond., F.R.C.S. Edin.,  
Surgeon to West Kent General Hospital, Maidstone.

## ACUTE DILATATION OF THE STOMACH.

To the Editors of THE LANCET.

SIRS,—The views communicated by me to THE LANCET of Nov. 2nd, p. 1228, so far as they relate to *duodenal pressure-obstruction*, have been paid the compliment of a notice by Dr. Theodore Fisher and that of adoption by Dr. C. R. Box and Mr. C. S. Wallace. Indirectly they derive some importance from the circumstance that in this country, so far as I am informed, no recognition had previously been awarded to the three fundamental points in connexion with this affection viz., (1) the evidence that obstruction is the mechanism of the dilatation; (2) the localisation of the obstruction in the third part of the duodenum; and (3) the special indications for its treatment. I wish to be corrected if it should be a false impression that the articles embodying the recent teaching on this subject and the discussion before the Royal Medical and Chirurgical Society had left us without any definite etiology, without any mention of duodenal occlusion,<sup>1</sup> and without any adequate suggestion for its relief, but still committed to a mysterious theory of active paralytic expansion for which strychnine would be a suitable treatment. From the papers of Dr. Box and Mr. Wallace in the Transactions of the Clinical Society of London for 1898 and in THE LANCET of Nov. 9th, 1901, p. 1259, it must be concluded that they have now largely modified their original view in favour of the principle of duodenal occlusion and of the therapeutical consequences which it involves. I entirely agree with their remark that a correct diagnosis has been found by many to be a matter of difficulty, though it ought not to be difficult. Moderate dilatations would still more readily be overlooked; and, indeed, this very frequently happens. In this connexion it is necessary to mention that very few, if any, of the published cases of so-called "acute dilatation" are provided with satisfactory evidence that gastric dilatation did not obtain in them prior to the acute symptoms; for this opens up important considerations to which I shall presently allude. Although the results of post-mortem experiments can hardly be applied without reservations to the elucidation of the behaviour of morbid viscera, satisfactory evidence has been obtained by Dr. Box and Mr. Wallace that a stomach charged with a sufficient weight of fluid will avail to compress the duodenum against the spine; and this furnishes a reply to the doubt expressed by Dr. Fisher, by demonstrating one of the modes in which a duodenal occlusion which might have been slight at first may be made absolute by a growing distension of the stomach. This instructive experiment may also explain one of the modes of origin of the occlusion. The water-pressure sufficed in itself to keep up the obstruction even after the overstretched tissues overlying the transverse portion of the duodenum had been divided. By their division the outflow on raising the fundus from the spine would be facilitated, but it is not proved that so long as they remained undivided they did not avail to check it at least in part.

From a practical standpoint the most important questions are the antecedent condition and the determining cause as possible guides to prevention and to timely treatment. It is probable, and it may eventually be proved, that gastric dilatation and gastroptosis are antecedents in a majority of the cases, whilst exhaustion, combined with malnutrition or marasmus, is a specially predisposing cause. The chief determining cause is atony of the stomach (particularly if associated with intestinal collapse) in combination

with continued *dorsal decubitus*. This causation belongs to cases which are found after death to be free from coarse structural lesions; but in other instances various local abnormalities may take a large share in the result. In cases of pure debility from abdominal marasmus, surgical shock, or toxæmia, the dorsal decubitus places the enfeebled gastric and duodenal peristalsis at a disadvantage; but in the stage of exhaustion when enteroptosis or a previous gastric dilatation has caused the pyloric portion to subside into the right vertebral groove it becomes a danger. This should be borne in mind in predisposed cases, particularly after severe operations; for in the early stage the progressive duodenal compression might be prevented by suitable posture, or by other means if the patient be unable to be moved. Concerning operative measures, should they become necessary, I cannot venture to speak without diffidence, but I cling to the impression that gastro-jejunostomy may not be the only, and may not in all cases be the most desirable, procedure, and that something might perhaps be achieved by suitable manipulation of the viscera in cases where the postural method can be applied after the operation.

In conclusion, these fragmentary suggestions cannot pretend to do full justice to the intricate subject, or to the writer's views. There are various forms of "duodenal pressure-obstruction," a separate discussion of which is beyond the compass of this communication. But the essential has been done if sufficient attention has been called to its existence, as a first step towards its successful treatment.

I am, Sirs, yours faithfully,  
Curzon-street, W., Nov. 11th, 1901. WILLIAM EWART.

## THE PREVENTION OF ASPHYXIA WHEN THE BIRTH OF THE AFTER-COMING HEAD IS DELAYED: A HISTORICAL NOTE.

To the Editors of THE LANCET.

SIRS,—Allow me to say a few words in reply to Dr. G. F. Blacker's "Historical Note" in THE LANCET of Oct. 19th, p. 1033. Dr. Blacker says: "The passage of a catheter or special tube into the child's mouth when the head is lying high up in the pelvic cavity is only likely to lead to a waste of valuable time, while if the head is sufficiently low down in the pelvis to admit of air reaching the mouth if the perineum be retracted its immediate extraction should be a matter of little difficulty," and later he quotes Dr. Barnes: "The real problem is to get the head out of the pelvis," to which he adds, "And to this advice one may safely add the qualification, *as rapidly as possible*."

Firstly, I would say that the passage of a catheter into the child's mouth when the head is lying high up in the pelvic cavity would be utterly unnecessary, inasmuch as the circulation of the cord would not be in any way obstructed. When, however, the head is sufficiently low so that pressure on the cord results it is, I believe, always possible to find the mouth with a catheter guided by the finger. The waste of valuable time exists only in Dr. Blacker's imagination; the veriest bungler would have the catheter in the child's mouth in three seconds, and every midwifery bag contains a catheter. Dr. Blacker then goes on to say that, "if the head is sufficiently low down in the pelvis to admit of air reaching the mouth if the perineum be retracted its immediate extraction should be a matter of little difficulty." Now, I should like to ask a question: How does Dr. Blacker account for the high mortality of breech cases if this assertion be true? Anyone will tell him that it is possible for the mouth to be well within reach of the finger and yet for the occipito-frontal diameter of the child's head to be fixed in one of the oblique diameters of the pelvis. Indeed, this is where the hitch usually occurs, and it is then that the pressure on the cord takes place, and it is then that Dr. Blacker recommends that somewhat difficult operation of applying the forceps, an operation which necessitates a delay of at least three or four minutes. Again, traction on the jaw is recommended, a most iniquitous proceeding to my mind. Think of it—the act of pulling forcibly upon the jaw of a tender infant! To do any good at all it must be forcible, and if the children on whom it has been practised were followed up who knows but what it would be found that they developed into those unfortunate people who are always dislocating their jaws at awkward moments. Balance the "valuable time" lost in inserting the catheter against four minutes required for applying the

<sup>1</sup> I find that the recent work of Mr. Mayo Robson and Mr. B. G. A. Myerum contains a short reference to the subject, in connexion with F. Miller's paper in the Deutsche Zeitschrift für Chirurgie, August, 1900.

forceps; also, the forceps can still be applied, if necessary, with the catheter *in situ*. Traction on the jaw I put in the category of "meddlesome midwifery"; in fact, the less traction we indulge in the better, for traction of itself has great and serious dangers. Finally, I submit that the "real problem" is not "to get the head out of the pelvis as quickly as possible"; it is absolutely and seriously different; it is to bring a living child into the world with the least possible amount of damage to it or the mother. I admit that I have only had one cathetered case on which to argue (my "one ounce of practice"), but I have not the slightest doubt that if a catheter was passed as routine treatment when the hitch occurred, followed by a masterly inactive wait, finally forceps if necessary, we should have an upheaval of statistics of mortality in breech presentations; if, on the other hand, we follow Dr. Blacker's precepts the mortality of 1 in 11 (Dubois) or 1 in 3½ (Churchill) will stand for aye.

I am, Sirs, yours faithfully,  
Queen's-road, Richmond. GEORGE W. ORD.

## A SIMPLE APPARATUS FOR ETHER NARCOSIS.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 9th, p. 1297, I observe a letter by Dr. Leonard Williams describing an ether inhaler which had been shown to him some months previously by Dr. Longard of Aix-la-Chapelle. As the inhaler referred to by Dr. Williams is practically identical in design and appearance with that devised by me 17 years ago and described in THE LANCET of July 5th, 1884, p. 19, it will be interesting to learn the source from which the inhaler recommended by Dr. Longard has originated.

I am, Sirs, yours faithfully,  
P. BLAICKIE SMITH, M.D. Aberd.  
San Remo, Italy, Nov. 16th, 1901.

## THE FREEZING-POINT OF THE BLOOD AND SECRECTIONS AS AN AID TO PROGNOSIS.

To the Editors of THE LANCET.

SIRS,—I read Professor Ogston's article on cryoscopy in THE LANCET of Nov 9th, p. 1253, with great interest, but I finished it unconvinced of the unique value which he claims for the new procedure probably through my want of understanding, and I am sure he will accept my criticisms as made in the spirit of inquiry. In the first place the value of the observations recorded is much diminished by our ignorance of the cause of the variation in the freezing-point of the blood; in no instance is this more evident than in the cases where it is above normal. Professor Ogston in regard to this writes of an "unusual purity" of the blood. If his milkman were to supply him with milk deficient of 10 per cent. of its cream and of too light a specific gravity would he regard it as unusually pure? And how are we to rely on cryoscopy as an indication of renal sufficiency or insufficiency if, as is stated, it is also an index of hepaticism? However, I chiefly wish to consider the practical bearing of this test, and this is best done by taking *seriatim* the cases advanced as proof of its value, assuming that the essential facts for such proof are quoted. I fail to see, almost without exception, that anything has been proved that could not have been proved with other more definite and better understood tests.

In Case 1, assuming that disease indicating casts were absent and that the total output of urea was satisfactory, a trace of albumin would hardly be considered a contra-indication to study. In Case 2 we are not told the specific gravity of the urine or the daily output of urea or the cause of death, so that no estimate of the value of cryoscopy is here possible. In Case 3 the test is superfluous. In Case 4 might not the cryoscopy taken at different times have shown as variable a condition of the blood as the specific gravity did of the urine?—there was here no indication of renal insufficiency. In Case 5 there appears to have been no contra-indication to work, so that the test was superfluous. In Case 6 (the reading given being 0.556, I assume that a different scale has been used from that described) why is  $1.055^{\circ}$  above normal slightly unfavourable when Cases 1 and 4,  $1.185^{\circ}$  and  $1.2^{\circ}$  above normal, are favourable indications? In Case 7 we are

not told the blood-count or whether the specific gravity of the urine is for the 24 hours. And how does the cryoscopy prove "that the kidneys, though diseased, were not the cause of the deterioration." In Case 8 we want an estimate of the urea, but with an albuminous urine having a specific gravity of 1006 the patient would surely in any event have been considered an unfit subject for operation. In Case 9, if, as it appears, the blood was tested after the operation, may not its abnormal condition have been brought about by the "lessened kidney elimination that follows operations..... performed under an anæsthetic"? In Case 10, although the urea eliminated was low, the patient "was greatly wasted," so that without her bodyweight being stated the estimate loses its value as an indication of renal insufficiency, and why in this case is  $1.185^{\circ}$  below normal "only"  $1.185^{\circ}$  when in Case 2  $1.185^{\circ}$  was sufficient to indicate a probably fatal result after operation? In Case 11 criticism is impossible as facts as to tube casts and elimination of urea are not given. In Case 12 does cryoscopy— $-0.59^{\circ}$ —indicate anything more than albuminous urine with specific gravity 1002 does?

Professor Ogston probably would not suggest that cryoscopy should take the place of the usual examination of the urine or blood, but that it should serve as an adjunct to these to increase the value of the deductions drawn from them; but as yet it seems to me the positions must be reversed, and careful chemical and microscopical examinations of the urine and blood be made to enable us to estimate the value and meaning of the variations in the freezing-point of the blood. Doubtless further observations will clear up many points, such as diurnal variation of the freezing-point and the meaning of readings above normal, and your readers will, I am sure, look forward with much interest to further developments in this promised aid to clinical diagnosis.

I am, Sirs, yours faithfully,  
Bradford-on-Avon, Nov. 11th, 1901. CHAS. E. S. FLEMMING.

## FOREIGN BODY IN THE RECTUM.

To the Editors of THE LANCET.

SIRS,—I have been asked, whether the retention of urine in my case was due to reflex action through the presence of the foreign body in the rectum. Certainly not. In the first place the old man possessed a blunted sensibility that would allow of the infliction of an unusual amount of pain without producing any reaction; furthermore, the bulk of the bottle, its position within the rectum and the pressure caused by the firmness with which it lodged on the coccyx, were sufficient reasons for retention of urine. I consider that the neck of the bottle impinging on the floor of the bladder paralysed the action of the vesical extrinsic muscles and that the bottle was forced into this tight position by the frantic efforts made to recover it after it had escaped into the rectum.

I am, Sirs, yours faithfully,  
Stockport, Nov. 12th, 1901. J. GOOD.

## A QUESTION OF SPELLING.

To the Editors of THE LANCET.

SIRS,—I noticed that as in Sir William Gowers's case you substituted "faradaic" for "faradic" in a recent lecture of mine, and there is no doubt that you were correct, or more correct than I was, although it is certain that "faradic" will become the word *par excellence* in future on the ground of brevity and euphony, just as "telegram," in spite of all rules to the contrary, has superseded the less elegant "telegraph." After all, it is use and convenience that must guide us in such cases; as Horace has remarked,

"Usus  
Quem pones arbitrium est et jus et norma loquendi."

I am, Sirs, yours faithfully,  
C. BELL TAYLOR, M.D. Edin.  
(Arbitrium est et jus et norma loquendi.)

\*.\* It is correct to say "to telegraph" and "a telegram." "Telegraph" is the infinitive form of a Greek verb and "telegram" is the neuter noun form, derived from the past participle of that verb. "Telegraph" is used sometimes as a noun interchangeable with "telegram"—presumably on the analogy of the use of the word "photograph," but although

authority for this use can be found in the dictionary we do not consider it right.—ED. L.

### A MEDICO-LEGAL SOCIETY.

*To the Editors of THE LANCET.*

SIRS,—It is proposed to form a medico-legal society for the purpose of affording opportunities for discussing questions arising where medicine and law come into immediate contact. It is suggested that such a society should include all who are interested in the subject—lawyers as well as medical men—and that the discussions should embrace medico-legal questions of every description, both of everyday and of exceptional occurrence. Half a dozen meetings a year may be considered sufficient, and an annual subscription of half a guinea may be found to be enough to cover all expenses.

A meeting for the purpose of discussing the formation of the society will be held at 20, Hanover-square, W., on Thursday afternoon (5.30 o'clock), Dec. 5th. Those who are willing to assist, but unable to attend the meeting, will kindly communicate with Dr. McCallin, 20, Hanover-square.

We are, Sirs, yours faithfully,

F. J. SMITH.  
W. MCCALLIN.

### THE HARVEIAN LECTURES ON URINARY SURGERY: A CORRECTION.

*To the Editors of THE LANCET.*

SIRS,—In my first Harveian Lecture, which you were good enough to publish on Nov. 16th, I am made to say that the average stay in hospital of Dr. D. F. Keegan's adult Indian lithotomy cases "was only 53 days." I really said *5·3 days*. This is important, as one of the points of my argument was the short stay in hospital necessary for Indian patients.

I am, Sirs, yours faithfully,

G. BUCKSTON BROWNE.

Wimpole-street, W., Nov. 18th, 1901.

\*.\* We publish this letter with pleasure, but the context should surely prevent the reader from falling into error. It will also be seen by anyone looking closely at the figures as we printed them that the decimal point was properly inserted but failed to "print," only a gap indicating the place where it should have appeared.—ED. L.

### NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

*The Continued High Mortality from Plague.—Sanitary Reforms in Calcutta.—Government Report on the Recent Hackney Carriage Drivers' Strike in Calcutta.*

THE total mortality from plague throughout India continues at between 8000 and 9000 deaths a week. In the Bombay Presidency there were 7199 deaths last week. The disease is spreading in the Punjab and the deaths are almost daily increasing in Bangalore and Poona. Bombay continues about the same, and elsewhere throughout India little change is recorded. For the present the epidemic is raging in the Satara, Belgaum, and Dharwar districts, and in parts of the Southern Mahratta country and the Kolhapur State.

A great change is contemplated in the health department in Calcutta. The city is to be divided into four districts, and the conservancy is to be placed under the engineer. Each district will have its health officer with a staff of sanitary inspectors, and will work to a large extent independent of the engineering department. The waste of water at the present time is enormous and millions of gallons simply soak into the soil. Larger schemes of improvement are also talked about, and it is said that 15 miles of new and wide streets are to be carried through the town. A commencement

has already been made with model dwellings for the poor, but it is very doubtful whether they will be generally successful. A recent resolution of the Bengal Government indicates great changes in the plague department. The corporation are not to get any more money on this account, and the Commissioners are recommended to arrange for plague expenses in the same way as they do for cholera and small-pox. The long and short of this is that plague will have to be dealt with by the health department and that the separate establishment will be abolished.

The recent strike of public conveyance drivers was partly brought about through the employes of the Society for the Prevention of Cruelty to Animals. Not that they were too active in instituting proceedings for cruelty, but black-mailing on a large scale has been proved to have been carried out. The police have also been shown to have largely practised this abuse, so that between the two the hackney-carriage owner has had a troublesome time. The amount of cruelty done to animals is great, and if the society employed honest men for the work there would be plenty for them to do. Unfortunately, the magistrates have not supported the society's prosecutions, so that the small fines inflicted have not proved deterrent. Active measures have been taken both with the police force and with the society's men, so that it is to be hoped a better time is coming. The Belgacina Veterinary Hospital is used as an infirmary for the treatment of the animals in respect of which offences against the Act have been committed. The honorary magistrates have ignored the law and they never send cases to Belgacina. With reference to comparative pathology there is a great want for a central recognised museum. There is abundant material but it is at present nearly all wasted. The medical colleges do not attract it, the India Museum has only a few specimens, and the Zoological Gardens are unprovided with accommodation. The bulls, buffaloes, and other cattle, besides horses and elephants, which are used for draught purposes, not to speak of the multiplicity of animals, both domestic and wild, which could be utilised for investigation, offer an immense field for scientific research.

Oct. 31st.

### MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

*The Victoria University.*

A MEETING of the Court of the Victoria University was held at Owens College on Nov. 14th, when the following modification of the statutes regarding the M.D. degree was passed:—

That statute v. 22 (Cal., p. 95) shall run as follows: "Candidates for the degree of Doctor of Medicine are required to present a dissertation, embodying the results of personal observations or original research, either in some department of medicine or of some science directly relative to medicine; provided always that original work, published in scientific journals or in the proceedings of learned societies, or separately, shall be admissible in lieu of, or in addition to, a dissertation specially written for the degree. No candidate will be admitted to the degree unless his application, after report from the Departmental Board of Medicine and Surgery, shall have been recommended by the General Board of Studies to the Council for acceptance. Candidates may be required to undergo examination in any subject connected with the dissertation or other work submitted."

As a consequence of the adoption of the resolution the following regulation will be added (Cal., p. 157):—

Candidates for the degree of Doctor of Medicine are required to furnish three copies, preferably printed or type-written, of the dissertation or published work which they desire to submit to the University, together with any drawings or specimens which may be necessary for illustration. These copies shall be sent in to the Registrar not later than March 1st in the year of application. They will be retained by the University.

*Education of Medical Students.*

At the same meeting Professor Sheridan Delépine moved:—

That having regard to the action taken by the Conjoint Examining Boards of the Royal Colleges of Physicians and Surgeons of London with reference to preliminary examinations and the registration of medical students, the Council be requested to consider what steps, if any, shall be taken on behalf of the University in this matter and to take such action as seems desirable.

In 1898 the Conjoint Board accepted the time spent in grammar schools in studying chemistry, physics, or biology as part of the five years' medical curriculum. In June, 1899, the Education Committee of the General Medical Council reported that they did not regard such schools as institutions

at which the first of the five years of medical study should be spent. In December of the same year the authority of the General Medical Council as to this matter was challenged by the Conjoint Board. In June of this year, 1901, regulations were brought forward on behalf of the latter, dispensing with students' registration, and it was found that the General Medical Council could not enforce their registration at the time of the preliminary education. It therefore followed that the first official record of a medical student's career was the passing of the first professional examination, so that the medical curriculum was reduced from five years to four by the exclusion of those subjects. The report of the Education Committee on a new registration scheme would probably be considered by the General Medical Council at its next meeting on Nov. 26th. In this scheme the preliminary education qualifying for registration would be extended and would consist (1) of preliminary examination as at present, and (2) of examination in physics, chemistry, and biology. The compulsory medical curriculum would be reduced to four years, and the study of chemistry, physics, and biology in university colleges and schools of the same status would be rendered optional. This would tend to lengthen the school period and to shorten the university career. If the Conjoint Board alone were to adopt this system and the universities enforced the present curriculum many pupils who would otherwise prepare for university degrees would be advised to follow the easier course of preparing for the Conjoint Board diplomas. As both alternatives would probably be injurious to the interests of universities and to university education generally, if the matter were considered sufficiently urgent a committee should be appointed to consider the matter carefully and see if the university alone or jointly with other universities could take some useful steps at the present juncture. Professor R. B. Wild seconded the motion.

#### *Friendly Societies' Convalescent Home.*

An effort is being made by the council of the Manchester and Salford United Friendly Societies to establish a self-supporting convalescent home for the benefit of their members in Manchester and the district. One of the speakers instanced the convalescent home at Clent, belonging to the Ancient Order of Foresters, maintained by the contributions of nearly 30,000 Foresters, each of whom by contributing 6d. a year was entitled to a fortnight's free maintenance at the home. There seems a probability of the scheme being taken up and carried out. It is proposed to have three acres of ground in the country and a building to hold 36 beds in separate rooms, at a cost of £5000.

#### *Bramblehow, Derwentwater.*

Widespread interest has been taken in the effort, now happily successful, for preserving the Bramblehow Park estate from becoming the prey of the speculative builder, and the nation, as well as the National Trust for Places of Historic or Natural Beauty, may be congratulated on its rescue. The final meeting of the Manchester committee in aid of this object took place on Oct. 30th, when it was stated that the contributions from the city and district amounted to a little over £796. It was decided not to dissolve the committee in case its help should be wanted for any other effort.

#### *Arsenic in Beer.*

Two cases which have occurred recently show that the arsenical-beer epoch has not quite departed. An inquest was held on Nov. 13th on the body of a man who died in Rusholme on the 9th. His illness dated from this time last year. A verdict was returned of "Death from peripheral neuritis caused by arsenical poisoning." In the other case, one of long-continued illness, a man obtained £50 damages. It was tried at great length before Mr. Justice Wills, who, not knowing how Lancashire people can drink, asked the counsel if he were astonished at the man being ill when he drank from four to six pints of beer each day. The counsel said: "If your lordship knew the amount that is taken in Lancashire I do not think you would think that was an excessive amount compared with what is taken without ill-effects." The counsel must have strong views as to the innocence of beer. In summing up the judge said he had reckoned that the plaintiff drank about 2552 pints of beer in the year, or over 25 gallons a month. The jury found "that plaintiff's illness was due to arsenical poisoning, contributed to by excessive drinking."

#### *Macclesfield General Infirmary.*

At a meeting of the governors of the Macclesfield General Infirmary held on Nov. 11th the six honorary medical men gave in their resignations. Six months ago the governors appointed a lady as junior house surgeon against the wishes of the honorary medical staff. She resigned the appointment a month since and the vacancy was advertised in the usual way. It would seem that the position is not attractive, as there were only two lady applicants and one gentleman, the latter withdrawing his application before the election. One of the ladies was appointed and Dr. C. Averill, the senior member of the staff, then handed in a document signed by the whole of the staff resigning their positions. The governors met on the 18th to consider the resignations. Mr. Mair, the chairman, had written to Dr. Averill asking him to be present, but the latter declined, saying, however, that the whole of the staff were willing to meet the governors in conference if they should be asked to do so. It was carried unanimously that the consideration of the resignations should be postponed and that a conference should be held, the time for which is fixed for the 25th. Medical men have in many cases not yet shaken off sufficient of their modesty to enable them to feel comfortable in dealing with a certain proportion of male diseases in association with lady doctors. But if the ladies are legally qualified the necessity for such association may in time break down these barriers.

#### *The Election to the General Medical Council.*

There is considerable interest felt in the profession in the Manchester district, as in others, in the candidature for Direct Representatives on the General Medical Council. The point about which there seems to be the strongest feeling is that of the position of midwives. Are they to be obstetric nurses under the direction of qualified practitioners of medicine? or are they to become an inferior grade of legally qualified practitioners—legally qualified, but of inferior general education and with special training and instruction too limited to make it desirable to entrust to them the lives of the majority of poor parturient women? Apart from the competition with the medical men practising in poor districts the latter alternative does not seem to promise the greatest security to those whose lives are involved.

Nov. 19th.

## WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

#### *King Edward and the Workmen's Institute.*

ONE of the most noticeable, as it is one of the most pleasing, features of the Welsh colliery villages is the workmen's institute, in which there is usually to be found a reading-room, a lending library, a smoking-room, a billiard-room, and rooms for technical classes. In many instances they have been established since the introduction of free education, for when school fees were payable many schools were supported by the deduction of a small weekly sum from the wages of the colliers, and upon the abolition of school fees the deductions were continued, but to support a workmen's institute. The actual buildings have in some districts been erected by the colliery proprietors and in others by the subscriptions of the men and others in the locality. This latter course is being adopted at Nantymoel, near Bridgend, where a building to cost £4000 is projected, and towards this sum His Majesty King Edward, who as the Duke of Lancaster is the ground landlord, has contributed £200, an example which might very well be followed by other ground landlords, as it is the exception rather than the rule for the royalty-receivers to take any interest in the districts from which many of them derive enormous incomes.

#### *Fatal Accident to a Medical Practitioner.*

While making his professional visits on Nov. 12th Mr. George Henry Browne of Brynmawr was thrown from his gig; his head struck against the portico of an hotel, and though he was able to walk into the house he very shortly died. The evidence at the inquest which was subsequently held disclosed the fact that there was no fracture and that death was probably due to shock. Mrs. Browne, who was in the carriage with her husband, was thrown out, but beyond a severe shaking she received no injury. Mr. Browne, who was only 45

years of age at the time of his death, was a student at the Ledwich School, Dublin, and had practised in Brynmawr for over 20 years, during the whole of which period he had held the position of medical officer of health, and for the greater portion of the time he was Poor-law medical officer to the Crickhowell and Bedwelty unions, surgeon to the Brynmawr collieries, and joint surgeon to the Ebbw Vale ironworks. He was on the commission of the peace for Brecknockshire and took a great interest in the social welfare and in the surroundings of the people among whom his daily work lay.

#### *Milk-borne Typhoid Fever.*

An outbreak of typhoid fever was reported to the Pontypridd Urban District Council on Nov. 12th by the medical officer of health (Mr. Howard Davies), who stated that the milk-supply to all the infected dwellings came from the same dairy and that the milk-cans and vessels from the dairy were cleansed with water from a public well within a few feet of which sewage discharged into an open ditch. Mr. Davies recommended that the sale of milk from this dairy should be prohibited, but his recommendation was not adopted, the half measure being deemed sufficient of permitting the milk-seller to continue the distribution of milk upon his promising not to use the water in question.

#### *The late Mr. Evan Lloyd, M.R.C.S. Eng., L.S.A.*

Through the death of Mr. Evan Lloyd, on Nov. 15th, at Ammanford, at the age of 62 years, Carmarthenshire loses one of the oldest and best known medical practitioners in the county. Mr. Lloyd was a member of an old Carmarthenshire family and practised until recently at Ammanford within a short distance of his birthplace at Garnant. He received his medical training at St. Bartholomew's Hospital and was surgeon to the Ammanford collieries and Poor-law medical officer to the Llandilofawr Union.

#### *The Gift of Isolation Hospitals.*

Although large sums of money are handed over every year by philanthropic persons for the support of hospitals, both general and special, very little is given either for the erection or for the upkeep of isolation hospitals, yet there are many districts where the expenditure of comparatively small sums would provide for the establishment of a hospital which would be of the greatest service to the inhabitants, but which the sanitary authority cannot be prevailed upon to erect. Miss Talbot has set an example which might well be followed. She gave to the Margam Urban District Council a site upon which to build a hospital and she has lent to the council, free of interest, a sufficient sum of money to pay for the erection of suitable buildings, the loan to be repaid in 30 equal annual instalments. To the town of Monmouth Lord Llangattock has been equally liberal. He purchased for £300 a quarter of an acre of land upon which were standing four back-to-back cottages. Nearly the whole of the inside of these cottages was taken out and other alterations were made, at a cost of £400, which has resulted in a very serviceable hospital with accommodation in three wards nominally for three patients, but six might safely be treated at one time. There are also kitchens, nurses' sitting-rooms and bedrooms, a bathroom, a washhouse, and a mortuary. The Monmouth Corporation bore the cost of furnishing—about £50—and the remaining £700 were paid by Lord Llangattock. The population of Monmouth is less than 6000.

#### *A Brave Medical Man.*

Mr. Edward Sandom Stone Davis, M.R.C.S. Eng., L.S.A., and Mr. W. Tamblin, who on August 19th, 1901, at Par, Cornwall, rescued two young St. Blazey tradesmen from drowning, have been awarded certificates on vellum by the Royal Humane Society. The certificates were presented on Nov. 14th at a largely-attended meeting in St. Blazey Town Hall by Major J. Polkinghorne, who alluded to the fact that Mr. Davis had on two previous occasions been instrumental in saving persons from drowning.

Nov. 19th.

LITERARY INTELLIGENCE. — The Christmas Number of the *Wide World Magazine* contains an illustrated article on "Life in a Refugee Camp," by Dr. Herbert Crook, medical officer of the Johannesburg Camp.—Messrs. Baillière, Tindall, and Cox have taken over the publication of Dr. Archdall Reid's work on the Alcohol Question from Mr. Fisher Unwin.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Glasgow University.*

THE November meeting of the University Court was held on Nov. 14th, the Very Rev. Principal Story being in the chair. The accounts for the year showed a surplus of £681, due mainly to an increase in the fees received, but in part to lessened expenditure in certain directions. Dr. McVail criticised the omission from the financial statement of the funds dealing with bursaries and money prizes, which, being University moneys, ought, he considered, to appear in the general accounts. To this it was replied that the funds in question had always been kept apart from the revenues appropriated to teaching purposes. Ultimately, on the suggestion of the Lord Provost, it was agreed to insert in the general accounts a note calling attention to the funds to which Dr. McVail had referred. The Principal, Professor Young, Dr. McVail, and Sir John Neilson Cuthbertson were appointed curators to the chair of pathology. A representation from the General Council in favour of curtailing the present courses of systematic lectures in the medical curriculum and proposing the further development of practical classes was referred to a special committee. There was no other business of general interest.—The first meeting of the University Engineering Society was held on Nov. 15th when Professor Gray delivered his presidential address on the Study of Physics and Engineering.—A second course of lectures on Celtic is to be continued during the present session by Dr. Magnus Maclean. The subject of the opening lecture, which is announced for Nov. 26th, is to be the Arrival of the Gael in History and Literature.

#### *The Plague in Glasgow.*

All fear of any immediate extension of the outbreak of plague has now practically subsided. There have been no new cases during the last three weeks and the Central Station Hotel, where the original patients were employed, has been thoroughly disinfected and is to be reopened for business to-morrow (Nov. 20th). The Local Government Board of Scotland has intimated approval of the order of the local authority making plague a notifiable disease within the city until Dec. 31st, 1902. Dr. A. K. Chalmers has issued a circular dealing with the relationship of ships entering and leaving the port, and with the conditions which they must adopt in order to avoid prolonged detention in quarantine. He advises that continuous efforts should be made to destroy rats on board ships, and advises for this purpose sulphur fumigation when the holds are empty. The sanitary authorities are willing to undertake this process as well as medically to inspect the officers, crew, and passengers of all out-going vessels, and to certify accordingly.

#### *Glasgow Hospitals.*

The staffs of the three general hospitals in Glasgow have recently been considering the advisability of attempting to secure representation on the several boards of management. At present there is no such representation, and indeed it is either a written or an unwritten law that no member of a general hospital staff can be elected to the supreme managing authority. This position has obvious disadvantages, and on several occasions personal efforts have been made to procure its alteration. The present movement is somewhat more widely organised and may thus more reasonably hope for success. The answer which has hitherto been made to the attempts at reform is that the interests of the medical staff are adequately represented by members of the profession elected to the board of management by such constituent bodies as the University, the town council, and the Faculty of Physicians and Surgeons. It is apparently forgotten that these bodies are not compelled to elect members of the profession, that the representatives whom they do elect have not always, or indeed usually, had hospital experience, and that in any case they have no authority or title to represent the wishes of the staff. Whether members of the staff should actually sit on the board of management may be a question, but the present attempt to constitute the staff of each hospital an advisory committee to which all important matters dealing with the medical interests of the respective institutions shall be referred must command the general sympathy of the profession. It is the only way by which the managers can learn the actual opinions of the staff as distinct

from the ambitions of individual members, and without it the efficient guidance of the board on medical and surgical questions is scarcely possible. The organisers of the present movement appear to be making a mistake in proposing to add to the advisory staff committee members of the general board elected by various corporate bodies who may happen to be medical men. What is wanted is the voice of those who are actually engaged in the practical working of the hospital. It is the staff alone which can supply this, and the introduction into the staff committee of medical men not specially competent to deal with hospital affairs can tend only to produce confusion. Further, the position of these gentlemen on the general board would not be strengthened by such an arrangement. They are sent there to represent general public interests, and to put them in a position in which they would appear as representatives of the staff might lessen their influence on general current affairs as well as give to them a character not in harmony with their real responsibilities.

#### *Curious Epidemic in Partick, Glasgow.*

The medical officer of Partick, Dr. G. Arbuckle Brown, has just issued a special report dealing with a curious epidemic outbreak which occurred early in October last. The number of persons affected he estimates at from 400 to 500, and the symptoms observed were violent vomiting, diarrhoea, and in many cases also marked prostration. It was found that without exception the persons affected obtained their milk-supply from one and the same dairy. Further investigation traced the distributed milk to a certain farm in Renfrewshire. Here, however, the sanitary conditions and the water-supply were above suspicion, and no case of illness existed or had recently existed among the farm servants. The only unusual event to be discovered was an acute and somewhat mysterious disease which had attacked one of the cows and had terminated fatally within 48 hours. Unfortunately, the carcass had been destroyed, so that it was impossible to discover the nature of the affection. Subsequently arrangements were made for pasteurising all milk received by the dairyman, and in the course of a few days the epidemic outbreak entirely ceased. Neither chemical nor bacteriological examination of the suspected milk threw any light on the question. Dr. Brown concludes that the illness of the cow, whatever may have been its nature, must be held responsible for the symptoms produced.

Dr. Thomas Lapraik has been appointed chairman of the Glasgow Athenæum.

Nov. 19th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Irish University Education.*

THE blue-book containing the minutes of evidence of the first session (nine days) of the Royal Commission on University Education in Ireland, with documents referred to in the minutes of evidence, was published last week and in a short time the whole of the available edition was exhausted. Further copies are being got ready. As this is simply the appendix to the first report, and as it deals solely with evidence taken in Dublin it would be premature to draw any conclusions at present. However, although there may be differences on minor points, running all through the evidence I see two solutions suggested for the vexed question of Irish university education: one, the establishment of a university for Catholics in Dublin and the conversion of Queen's College, Belfast, into a university; the second solution being an endowed college for Catholics in connexion with a reconstructed Royal University. A great amount of argument was tendered in support of both of these views, but until the commission is in possession of further information—and it is stated that it will not meet in Belfast or Cork until about Easter—it would be altogether premature to attempt to gauge what will be its recommendations.

#### *Army Medical Reform: Advisory Board.*

Dr. Charles Bent Ball has been selected as civilian member for Ireland on the Advisory Board for the supervision of the Army Medical Services.

#### *The Hospitals Question in Belfast.*

A special meeting of the City Corporation of Belfast was held on Nov. 18th, in response to a requisition signed by the

Roman Catholic Association members, to seek power, in the new "omnibus" Bill about to be promoted by the Belfast City Council, to make a grant from the public funds to the Mater Infirmorum Hospital, in view of the fact that the draft Bill contains a clause giving an additional six acres of ground to the Royal Victoria Hospital. It would appear that £5000 were paid for the site of the Mater Infirmorum Hospital, apart from a ground-rent of £100 a year. The argument of the Roman Catholic members was that the land granted to the Royal Victoria Hospital represented a certain money-value, and they demanded an equivalent for their hospital, the Mater Infirmorum. Those who objected to make any grant to the Mater Infirmorum Hospital did so on the following grounds:—1. That the six acres originally given to the Royal Victoria Hospital (and the present additional six acres proposed to be given, which are merely a corollary of that gift to provide a proper and efficient site) were really granted by the citizens of Belfast with the approval of the corporation to commemorate the jubilee of Queen Victoria. 2. That the constitution of the Royal Victoria Hospital is entirely non-sectarian; on its committee there are Roman Catholic members, while on the committee of the Mater Infirmorum Hospital there was not a single Protestant member. To say that patients, irrespectively of their religious belief, are taken into the Mater Infirmorum Hospital is no reply to the well-known fact that that institution is controlled for their own specific purposes (and to do this they have a perfect right) by the authorities of the Roman Catholic Church. A Methodist member of the corporation said that if the city council agreed to give a grant to a Roman Catholic hospital as proposed that day the next thing would be to bring forward a motion demanding aid for a Methodist hospital out of the ratepayers' money. One of the Roman Catholic members of the corporation was so bold as to speak of the sectarianism that existed in Belfast, which he characterised as the bane of public life and the disgrace to the city, and he contrasted the generous action of the Dublin corporation which actually contributed to the Adelaide Hospital which was run on Protestant lines. In reply, Sir James Henderson, D.L. (ex-mayor of Belfast), read a letter from a correspondent in Dublin to the effect that "the Adelaide Hospital, which is under exclusively Protestant management, and is supported altogether by voluntary contributions, gets no grant because it is so distinctly a Protestant institution." 3. To make a grant by the corporation to the Roman Catholic Mater Infirmorum Hospital would be to establish a precedent which would oblige the city council to consider the claims of such deserving charities as the Children's Hospitals (two), the Samaritan Hospital, the Eye Hospitals (two), and the Maternity Hospital. The corporation decided by a vote of 23 to 7 (the latter being all Roman Catholics) to draw the line at the hospital which is not connected with or controlled by any Church, but by and for the whole community. In this action they have shown a truly non-sectarian attitude which Dublin might well copy. Everyone in Belfast admires the pluck and enterprise shown by the Roman Catholics in building and equipping their new hospital, and many Protestants have subscribed to its funds, but it is to be feared that the action of the Roman Catholic party in regard to the Royal Victoria Hospital will greatly destroy this good feeling.

#### *Severe Storm in Ulster.*

On Nov. 12th the most severe storm which has been experienced since that of 1894, which did so much damage, swept over Ulster. It was accompanied by a very heavy downpour of rain, and the wind, blowing from the north-east, drove the tide up Belfast Lough, so that at the harbour the water was on the level with the quays. As a result of this unusually high tide and the tremendous downpour of rain (over two inches fell in 24 hours) many parts of Belfast were flooded and enormous damage was done to property. It is quite evident that the main drainage system of Belfast is totally unfit to cope with a combination of a high tide and a great rainfall. When this occurs there is always flooding, and great injury is done to the low-lying portions of the city.

#### *Death of Mr. O. J. Forde, Treasurer of the Cork North Infirmary.*

Many past students of the Cork North Infirmary will hear with regret of the death of Mr. O. J. Forde, who for many years was closely identified with the administration of that institution. As honorary treasurer he took an intense interest in its welfare. He was always most courteous to the

medical and surgical staffs of the hospital and any improvements or reforms suggested by them had his energetic support. Possessed of great business capacity and tact he looked after the finances in a manner that procured for him on several occasions the warm thanks of the board of governors. Some few years ago failing health compelled him to resign his position, but at the urgent entreaty of his colleagues he consented to retain his seat on the board. Even then he did not cease to take a deep interest in the affairs of the hospital and he was often present at meetings when it was obvious to all that he should have been resting in his own home. He was one of those men who do good by stealth. Of a retiring disposition, he hated display of any kind, and as his intimate friends fully anticipated, gave explicit instructions that his funeral should be private. That decision was much regretted by the great body of his fellow-citizens who were anxious to pay a well-earned tribute of respect to his memory.

#### *Cork Hospital Saturday Collection.*

The Cork Hospital Saturday Fund has been distributed. One of the honorary secretaries in his report states that last year they were assisted by collections made in two or three of the country towns, but this year a new association was started called the "Hospital Aid Society" and they received through that society for distribution £696, which sum added to £443 collected in the city made a total of £1139. The funds so obtained were distributed as follows:—

	£	s.	d.		£	s.	d.
North Infirmary ...	195	0	0	St. Vincent's Hospital	105	0	0
South Infirmary ...	195	0	0	Lying-In Hospital ...	100	0	0
Mercy Hospital ...	135	0	0	Fever Hospital ...	70	0	0
Women and Children's Hospital ...	125	0	0	Maternity ...	35	0	0
Eye, Ear, and Throat Hospital ...	115	0	0	St. Patrick's Cancer and Incurable Hospital ...	20	0	0
Nov. 19th.				Queenstown Hospital	10	0	0

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *The Sensations of an "Electrocuted" Professor.*

M. ANDRÉ BROCA, *agrégé* Professor of Physics, was recently experimenting with a Rhumkorff coil and received a shock with a powerful current. The sensations which he experienced are particularly interesting at the present time, the recent execution of Czolgosz having drawn special attention to the effect of severe electric shock. M. Broca had in each hand a very large electrode, to which circumstance he owed his escape from burns. He was thrown violently to the ground, had a sensation as of his heart ceasing to beat, and quite gave himself up for lost. He tried to call his assistant to switch off the current but could only make an inarticulate noise. He lay at full length on the floor and felt no sensation in his hands or arms, while the walls of the room appeared of a green colour and as if they were leaning over to the right. When the assistant had cut off the current he went to M. Broca and raised him up. M. Broca was able to walk slowly but felt as if he possessed only a head and two legs; he tried to move his arms but they were paralysed. When they were sharply pinched he felt nothing, but, on the contrary, his fingers were hyperæsthetic—for instance, on touching a piece of metal he felt a sensation of extreme cold. About a quarter of an hour later he could move his fingers and was able to write very slowly. On trying to walk he at once became short of breath. When he got home, however, he was able to walk slowly up five flights of stairs. Some hours later he had violent cardiac palpitation, but after two days he felt perfectly well. It is noteworthy that after receiving the shock M. Broca retained perfect consciousness and said to himself that he was dying.

#### *Serum Therapeutics in Typhoid Fever.*

Paris is suffering at the present time in many districts from an invasion of typhoid fever, but the disease is on the decline, for very few fresh cases are reported. One of the nurses at the Tenon Hospital is seriously ill from the fever, while a nurse and a house surgeon from other hospitals have been admitted to the Tenon Hospital, and there are 32 cases of typhoid fever there. Dr. Chantemesse is treating them by inoculation with a new serum which he has just discovered and of which he gave an account at the meeting of the Hospitals Medical Society held on Nov. 8th. Since 1892 Dr. Chantemesse and M. Widal have been trying the

effect in typhoid fever of a serum prepared from the bodies of bacilli, but this proved to be only preventive and not curative. Lately much more has been discovered as to the nature of the typhoid toxin and the two observers have been able to prepare an anti-typhoid serum from the typhoid toxin and not from the bacilli themselves. This is the serum which Dr. Chantemesse described to the society. He reminded his hearers that the mortality from typhoid fever varied in different epidemics and in different places. In the hospital at which he attended he had treated 34 cases of typhoid fever and every patient recovered. In other hospitals, according to official statistics of the same epidemic, the mortality was over 25 per cent. In the Tenon Hospital he had treated 30 cases of severe typhoid fever, there being four deaths, while the mortality in other cases of the same disease in the same hospital during the same epidemic reached 31·8 per cent. In the great majority of cases injection of the serum was followed in a short time by a fall of temperature, after which the patient went on to recovery, provided that the injection had been made before the eighth day of disease. If the injection were made later than the eighth day the temperature fell, but more slowly, and after a few days it reached its original height, when to obtain a permanent reduction another injection was necessary. These observations exhibited various differences according to the severity of the case and the degree of resistance which the patients possessed. The injection did not prevent relapses, therefore it was necessary to watch the patient carefully and to be ready with another injection in case he were to relapse. The effects of the injection were very marked: the pulse became less frequent in a few hours and, after one, two, or three days, diarrhoea ceased, the blood-pressure rose, and the patient passed a large quantity of urine. The use of the serum did not interdict cold baths and plenty of liquid food, but no other form of medication should be used. Dr. Chantemesse made his injection under the skin of the arm in doses of 15 cubic centimetres, and the earlier it was used the better the result. An injection should be given on the first suspicion of typhoid fever, without waiting for serum diagnosis. In cases which came under treatment early recovery was certain. M. Le Gendre stated that he had had under his care a case of typhoid fever in a tuberculous patient who absolutely refused cold baths. Dr. Chantemesse injected the patient on the seventh day and he rapidly recovered. In several other instances M. Le Gendre had seen the serum to be efficacious and its use to be unattended by any inconvenience. M. Duflocq also bore witness to the good effect of the serum.

#### *The New Dean of the Faculty of Medicine.*

M. Brouardel having persisted in his refusal to stand again for the post of dean and having reached the end of his term of office the election of a new dean was held on Nov. 14th. At the first ballot no candidate obtained the requisite majority and M. Debove withdrew his candidature. The votes being divided among the other candidates M. Pinard came out at the head, but still did not obtain a sufficient majority. A number of M. Debove's colleagues then insisted upon his standing again and he was elected by 48 votes. The new dean was born in Paris in 1845. In 1869 he was *interne*, in 1877 physician to the hospitals, and *agrégé* in 1878. In 1890 he became a professor of the faculty and in 1892 a member of the Academy of Medicine. In 1890 he became a member of the council of the university and assessor to the dean. He is an officer of the Legion of Honour, an old pupil of Charcot, and holds the chair of clinical medicine. He is physician to the Beaujon Hospital and takes a special interest in diseases of the lungs and of the digestive system.

Nov. 19th.

## ROME.

(FROM OUR OWN CORRESPONDENT.)

#### *A New Malarial Problem.*

NOTWITHSTANDING all the recent advances in our knowledge of the etiology of malaria it would seem that there remain more than one problem in regard to it, a satisfactory solution of which has still to be found. It has been asserted, for example, that malarious localities exist where the mosquito cannot become infected from the human subject because they are destitute of human inhabitants, but

where, nevertheless, fever may readily be contracted by the passing traveller. This statement has never been tested in a scientific way and is a difficult one either to prove or to disprove. It is most likely founded on an imperfect knowledge of the localities concerned, as has so often happened in regard to other statements that appear to negative the mosquito theory of infection. But how can we interpret the facts lately noted by Celli and Gasperini in a communication to the *Policlinico*, entitled, "Paludismo senza Malaria"?<sup>1</sup> These observers, examining certain localities in Tuscany—namely, the swamps of Fucecchio and Bientina, the Lago di Massaciucoli and marshes surrounding it, and the Tuscan littoral from Collesalveti and Leghorn to Viareggio and Pietrasanta—find a condition of affairs of which it is very hard to offer any satisfactory explanation. These localities were in former times highly malarious, a fact testified to by the old Austrian military maps compiled in the grand ducal times, on which they are indicated as "regions where intermittent fevers prevail," as well as by the older local medical men who remember the prevalence of malaria in them as lately as from 25 to 30 years ago. Since that time a progressive salutary change with respect to malaria has taken place, although the physical conditions remain precisely the same as before. For example, the marshes of Fucecchio and Bientina are still deserted swamps in the midst of an agricultural oasis; in the other districts there exist canals of stagnant water precisely like those of the neighbouring fever-stricken Maremma; at Massarossa there are large rice-fields like those of Lombardy, with macerating tanks for hemp; while in the marshes between Bientina and Orentano peat-mosses abound and the cutting of peats goes on regularly. All the conditions, therefore, obtain in these localities which in other places give rise to fevers and tend to enhance their numbers and their deadliness. In all of them the stagnant water swarms with larvæ of anopheles (*claviger* and *pictus*) and myriads of the adult insects, in no respect distinguishable in their specific characters from the same varieties in malarious localities, inhabit the stables and dwelling-houses, causing great annoyance to their inhabitants; and finally, there is no want of malarial subjects by whom the mosquitoes might be infected, for many of the inhabitants of these Tuscan marshes go to Algeria, Corsica, Sardinia, the Maremma of Grossets, and the Campagna of Rome in search of work and there contract malaria, of which they have the usual more or less obstinately recurring relapses after their return home. There is therefore plenty of parasitic blood obtainable by the anopheles during the summer and autumn months and all the conditions necessary for an extensive epidemic of malaria are thus apparently provided in abundance. In another locality such an outbreak would be inevitable, but in this favoured region no such result follows. The children, who are elsewhere the surest indicators of malaria, are here robust and rosy, although born and bred in the midst of these marshes; the adult population may be unhealthy and squalid from the effects of pellagra, but show no traces of malaria, and it is not uncommon to find persons far advanced in years who have lived all their lives in these marshes without ever having suffered from fever. In the neighbourhood of Massaciucoli there is a colony of women and children who watch night and day over the tomato crops and are lodged in huts giving no better protection than do those of the Roman Campagna and Pontine Marshes, but who nevertheless remain quite immune. In other places careful inquiry either failed to reveal any cases of fever, or if such occurred they were very few and mild, and had given rise to no fresh cases amongst the relatives or neighbours. Only two circumscribed foci of malaria were found in the whole of this extensive paludal zone. One of these was situated near Cava between Vecchiano and the Lago di Massaciucoli, where a relapsing case was encountered in a house inhabited by a family in which a case or two of fever occurs every year, while the numerous families in some houses quite near at hand all remained healthy. Another focus was met with on the edge of the marsh of Fucecchio, but here, too, there occur only about 30 cases a year amongst some 3000 persons. The immunity enjoyed by nearly the whole population of these Tuscan marshes cannot depend on any peculiarity of the meteorological conditions since in the small province of Pisa these are practically the same in the part towards Rome where grave forms of malaria prevail as in the other part,

only a short distance off, which is quite healthy. Nor can it be explained by any inherent powers of resistance in the inhabitants, who on going to work in malarious localities readily contract the fever; nor by any want of susceptibility of the anopheles, which were readily infected by malarious blood on being brought to Rome; nor by the use of quinine, which is not more employed here than in other places. It is therefore evident that we have here to deal with an indisputable and so far inexplicable exception to the working of the new theory of the etiology and epidemiology of malaria. Celli and Gasparini regard it as the exception which confirms the rule, and point out that it is not unusual to observe, even in such typically contagious maladies as plague and leprosy, a gradual reduction in the number of cases and an attenuation in their infective power to such a degree that the possibility of contagion finally disappears. Elsewhere—as in France, Germany, and England—this happy stage in the history of malaria has been reached, the anopheles which still remain where there is no longer any malaria being probably the documentary evidence, as it were, of its former existence. The same consummation may be nearer in Italy than we think for, hastened, as it must surely be, by the elaborate preventive measures now so extensively adopted throughout the whole country. Perhaps the further study of any peculiar conditions existing in the Tuscan marshes may afford useful indications for attacking the problem of the prophylaxis of malaria from some new and still more promising direction.

#### Obituary: Emilio De Rossi.

By the death of Professor Emilio De Rossi, which occurred suddenly from angina pectoris on Nov. 11th, Italy loses the foremost as well as the first of her aural surgeons. Born at Mentone in 1844, he graduated at the age of 20 years at Genoa, whence he went to Paris with the intention of studying ophthalmology. While there he transferred his attention to the study of the ear, devoting himself to it so successfully that in 1871 a chair of Otiatry, which he has occupied ever since, was founded expressly for him in the University of Rome. In 1866 he published his "Trattato sulle Malattie dell' Orecchio" which is regarded in Italy as a classical work. Besides numerous contributions to otiatry he published various papers on nasal and laryngeal subjects, in which he was likewise a recognised authority. For over 20 years he published regularly his valuable *Rendiconti Statistico-clinici*, and in 1893 he founded, in conjunction with Professor Gradenigo of Turin, the well-known *Archivio Italiano di Otiatria*. He was a bold and skilful operator, and is responsible for several advances in operative procedures in connexion with his speciality, notably the disarticulation of the incus from the stapes (first performed by him in 1898), and for different new plastic and grafting operations. He demonstrated the value of electrolysis in the treatment of naso-pharyngeal polypus and was the inventor of various ingenious instruments for the removal of laryngeal tumours. His loss at the comparatively early age of 57 years is much regretted, especially in Rome, where he was esteemed not only for his professional skill but also for his personal qualities and for his kindness to the poor.

Nov. 17th.

#### CANADA.

(FROM OUR OWN CORRESPONDENT.)

#### Precautions against Bubonic Plague.

DR. MONTIZAMBERT, the Director-General of Public Health, owing to the outbreak of bubonic plague at Glasgow has issued an official letter to all steamship companies which requires that all medical officers of vessels shall prepare a statement of the temperature of every person on board 24 hours prior to arrival at any Canadian port. This will insure that the ship's surgeon is brought into contact with every one on board, and cases of disease indicated by a rising temperature will thus be detected. Additional instructions have also been issued to all quarantine officers that they shall resume, with regard to Liverpool and Glasgow, the special instructions issued a year ago when the plague was at Glasgow.

#### Further Provision for the Consumptive Poor in Ontario.

The National Sanatorium Association have announced that the free hospital now in course of erection near the Muskoka Cottage Sanatorium will be ready for occupation in the near-

<sup>1</sup> Policlinico, Sezione pratica, Fasc. 42, August 17th, 1901.

future. The main building is located in a beautiful park of 56 acres, within half a mile of the town of Gravenhurst, and is the gift of Mr. W. J. Gage of Toronto and the trustees of the estate of the late Hart A. Massey. 50 beds will be provided for the poor of Toronto, and the Grand Trunk Railway have agreed to carry 100 of these patients to the hospital and return, free of charge, every year, while all in excess of that number will be carried at half fare. Physicians and nurses who are the victims of consumption will be carried free. This new hospital of the National Sanatorium Association is for first-stage cases: advanced cases will be cared for nearer Toronto, where a fine site has recently been purchased at a cost of \$30,000. It is understood that the late Mr. W. E. H. Massey has bequeathed a large sum of money for the purpose of a research laboratory at the Gravenhurst institution.

#### *A New Sanatorium for Tuberculosis at Quebec.*

The Fathers of the Holy Cross, who have charge of the Côte des Neiges College, have given a large tract of land on the north side of the second mountain at Montreal as a site for a new consumption sanatorium. Prominent physicians of Montreal have been working on this matter for some time owing to the increasing death-rate from tuberculosis during the past few years, and the above donation is part of the outcome of their endeavours. A well-known philanthropist of Toronto has offered to endow the institution sufficiently to meet the expense of running it, provided that the Provincial Government erect the building. A delegation of physicians is to wait on the members of the Government shortly in this connexion. As an evidence of the rapid growth in the death statistics from tuberculosis the following figures are interesting. In 1894 there were 2664 deaths from tuberculosis in the province of Quebec; in 1895, 2791; in 1896, 2826; in 1897, 3079; in 1899, 3487; and in 1900, 4782. There were 927 deaths alone in Montreal in 1900 from this cause.

#### *Deaths in Ontario in September.*

The total number of deaths reported in the Province of Ontario during the month of September numbered 1959, which was 531 less than for the corresponding month of 1900. Some little time ago the Provincial Board of Health sent out warnings to the clerks of municipalities, who had become lax in regard to the reporting of deaths, that the law in this respect must be complied with; and as a result in September 99 per cent. of the population were reported, which means that out of 777 municipalities 770 sent in returns. There died from scarlet fever, 13; from diphtheria, 45; from measles, 2; from whooping-cough, 17; from typhoid fever, 41; and from tuberculosis, 165.

#### *Small-pox at the Capital.*

There has been quite an outbreak of small-pox at Ottawa during the past month, something like 75 cases having been reported; and the outbreak has occasioned a few complications in health matters there. Dr. Robillard, who has been the health officer for over 20 years, has resigned, and Dr. Law has been appointed in his place. The disease so far has been very mild in its character, and on this account there has been a good deal of laxity on the part of the people with regard to observing quarantine regulations and the call for general vaccination. Then it appears that the quality of the lymph used in vaccinating has not been giving satisfaction—a factor as regards successful vaccination which has been all too common in Ontario during the past year. Feeling is running so high against compulsory vaccination that the city council will probably rescind the order for general vaccination.

#### *Small-pox in Quebec.*

In consequence of the increase of outbreaks of small-pox in the province of Quebec the Quebec Board of Health has ordered the municipal councils of the province to carry out the provisions of the Quebec Public Health Act, and to see that the heads of industrial establishments secure from all persons in their employ certificates of successful vaccination—the operation having been performed within the past seven years—or in default of such certificate to see that the employés are properly vaccinated. Further, the municipal officer of the sanitary authorities must give a similar notice to the directors of educational institutions that the pupils attending these schools must produce similar certificates or else undergo an operation for vaccination.

#### *Fellows in Pathology at McGill University.*

The medical faculty at McGill University have recently appointed two new Fellows to assist Professor Adami in the pathological department. The recipients of these honours are Dr. G. A. Charlton of Montreal and Dr. H. G. Wooley of Johns Hopkins University, Baltimore, and their special work as research fellows will be to discover means to combat communicable diseases. Some little time ago the faculty appointed Dr. Ford to the Rockefeller research scholarship at McGill University. Dr. Ford has been studying at the Pasteur Institute at Paris for the past six months, but will shortly return to Canada to commence the work to which he has been appointed. During the past summer extensive alterations and additions have been in progress in the different departments of the medical faculty at McGill University.  
Nov. 4th.

## AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

#### *Melbourne Hospital and Infectious Diseases.*

At the last meeting of the committee of the Melbourne Hospital the subject of provision for infectious diseases came up for consideration. At present it is the only hospital in the metropolitan area that admits infectious cases, and the accommodation is totally inadequate and unsuitable, consisting of tents, which are always overcrowded. So long ago as November, 1899, a committee was formed to proceed with the erection of an infectious diseases hospital and about £19,000 in public subscriptions were placed in its hands for the purpose. After repeated squabbles and blunderings the buildings were started, but though now built are not available for use, as the money is all spent and the buildings are not quite completed, are not furnished, and there is no provision for maintenance. In view of the expected early opening of this building the Melbourne Hospital has done nothing, but tired of waiting at last proposes to spend £5000 in erecting permanent suitable buildings for infectious cases in place of the tents. The Board of Public Health, however, objects, and "cannot give its approval to the treatment of distinctly infectious cases in any building erected in the grounds of the institution." During last year 344 cases of diphtheria, 72 of measles, 11 of scarlet fever, and five of whooping-cough were treated in the tents of the Melbourne Hospital. At the same meeting of the committee the medical superintendent reported that the number of operations had greatly increased of late, as many as 92 having been performed in a fortnight, and an additional resident surgeon was required. It was resolved that a relieving surgeon should be appointed temporarily.

#### *The Proposed Additions to the Prince Alfred Hospital, Sydney.*

The Parliamentary Standing Committee on Public Works in the New South Wales Legislative Assembly is taking expert evidence as to the expediency of constructing the additions to the Prince Alfred Hospital as proposed by the directors. Professor Anderson Stuart, Sir James Graham, M.D. Edin., Dr. C. K. Mackeller, Sir Arthur Renwick, M.D., Dr. H. N. MacLaurin, Dr. Tidswell, Dr. Purser (formerly medical superintendent of the hospital), and Dr. Blackburn (present medical superintendent of the hospital) gave evidence as to the necessity for increasing the hospital accommodation of Sydney, and generally approved of the proposed additions to the Prince Alfred Hospital, which received patients from all parts of the State and was on a suitable site. Mr. J. Kirkpatrick objected to the proposed plans. The aspect was faulty, excluding sunlight. The wards were to be connected by a dark corridor and by a staircase, so that vitiated air could travel from any ward to any other. The sanitary arrangements were not in accord with the recommendations of the Water and Sewerage Board. The proposed new wards would block the sunlight and currents of air from the existing wards. The original plans of the existing building were less defective than the proposed plans and the defects were caused by the desire to have clinical teaching-rooms attached to the wards, which were too small, accommodating only 14 patients. 32 bed-wards were much more economically worked.

*Opening of the New Wing at Balmain Hospital.*

The Premier of New South Wales formally opened the new wing of the Balmain Hospital. In doing so he remarked that Governments in New South Wales had all of them taken a warm interest in hospital affairs and given financial assistance. From 1890 to 1900 no less than £914,900 had been spent by the State of New South Wales in the relief of the sick.

*Proposed Dental Hospital, Sydney.*

Nearly 100 dentists attended a meeting on Sept. 24th to consider the advisability of establishing a dental hospital in Sydney. It was decided to establish such a hospital and an organising committee was appointed.

*A Fatal Headache Powder.*

A man, aged 43 years, died in Suny Hills, near Sydney, on Sept. 12th, after taking a "headache powder" obtained from a local druggist. The post-mortem examination and analysis of the stomach and other organs showed that death was due to strychnine poisoning. The druggist who supplied the powders said that they consisted of six grains of antipyrin. The boxes of antipyrin in his stock on analysis were found to be pure, but some antipyrin in a stock bottle contained strychnine as well. The druggist could not explain how the strychnine could have got into the antipyrin. The jury found that death was due to poisoning by strychnine, and "that due care had not been exercised in putting up the powder, but on whose part there was no evidence to show."

*Suing Private Patients in a Public Hospital for Fees.*

Two cases of interest to the profession were lately tried at the Melbourne County Court. In both Mr. M. A. O'Sullivan, surgeon to St. Vincent's Hospital, brought an action to recover his fees for operations and attendance on patients sent in by him to the private wards at St. Vincent's Hospital. In the first case he had also gone some 20 to 30 miles into the country to see the patient in consultation and the action was decided in his favour. In the second case the judge decided against him on the ground that there was not sufficient evidence of a specific contract before the patient went into the hospital.

*Dr. S. T. Knaggs and the Australasian Medical Gazette.*

Dr. S. T. Knaggs has resigned the position of editor-in-chief of the *Australasian Medical Gazette*, the organ of the branches of the British Medical Association in Australia. A member of the Association complained to the Council of the New South Wales Branch that there was a widespread feeling of dissatisfaction among medical men in Australia at the way the *Gazette* was conducted, and that instead of being a powerful organ as it should be it was an absolute failure. Dr. Knaggs has resigned in order to appeal to the members of the Association, but complains that the Council has practically disfranchised most of the members by deciding that the election of editor must take place in Sydney by open voting at a meeting of the branch instead of by sending a ballot paper to every member, as was done previously.

*Obituary.*

Extreme regret was felt throughout Victoria, and especially in the medical profession and the military forces, at the death of Colonel G. H. Fetherston, M.D. Melb., late principal medical officer to the Victorian Military Forces. Colonel Fetherston, who was 72 years of age, held many important positions. He settled in Victoria in 1860 and became resident medical officer to the Women's Hospital and his association with the military forces commenced in 1866, when he was gazetted surgeon-lieutenant in the Victoria Volunteers. On the reorganisation of the forces upon a militia basis he was made surgeon-major, and in 1890 became principal medical officer with the rank of colonel. For over 20 years he was honorary surgeon to the Women's Hospital and was one of the oldest members of the University Council. He was also chairman of the Medical Board and chairman of the honorary justices at Prahran, where he lived and practised, and for which place he was also health officer. He had a large practice at one time and was generally esteemed by his brethren in the profession. He was given a military funeral which was very largely attended—indeed, the military cortège was the largest seen in Melbourne for many years—Dr. H. G. A. Wright, of Wynyard-square, Sydney, died suddenly from heart disease. He was 74 years old and had practised in Sydney since 1854. He attended the late Duke of Edinburgh when he was shot in Sydney.

He joined the Royal Society of New South Wales in 1872 and held the office of treasurer from 1879 to 1885 and again from 1893 to his death; he, however, could never be prevailed upon to assume the position of president, though it was repeatedly open for his acceptance. Dr. Wright was a proficient in astronomy, photography, and microscopy. He was widely respected and his funeral was very largely attended both by the profession and by eminent citizens.

Oct. 8th.

*Obituary.**JOHN CONNELL, M.D., F.R.C.P. EDIN., M.A. ST. AND.*

THE Scottish Lowlands and Tweedside in particular have sustained a heavy loss by the untimely death of Dr. John Connell of Peebles, which took place on Nov. 2nd in Edinburgh. He had gone thither about a fortnight before to undergo an operation for malignant tumour of the rectum. From this he never rallied, and in spite of all that skill and care could do he succumbed in his fifty-ninth year. A "son of the manse," he was born at Bo'ness in West Lothian, where his father, the Rev. David Connell, had long held with ability and acceptance the post of United Presbyterian pastor, his mother being the eldest daughter of another light of the Scottish ministry—the Rev. Archibald Browning of Tillicoultry. His education, begun at home, was further prosecuted at Croft Lodge Academy, Rothsay, and at Bonnington Park School, Peebles, of both of which institutions his uncle, Dr. James Browning, was the scholarly and efficient headmaster. Thence he proceeded to the University of St. Andrews, matriculating in the Faculty of Arts, and distinguishing himself in all the classes, till he took his Master's degree with first-class honours in Latin and Greek, while also gaining the Miller prize for proficiency in modern languages. Thus equipped he entered on the study of medicine in the University of Edinburgh, where again he took a foremost place in the classes, obtaining the bronze medal in chemistry and first-class honours in *medica materia*. He graduated with distinction M.B. and C.M. in 1867, proceeding to the "*summi in medicina honores*" in 1873 and was elected Fellow of the Royal College of Physicians of Edinburgh in 1877.

Dr. Connell began professional work at Melrose under Dr. Brown and thence repaired to Peebles as successor to Dr. J. B. Junor whose daughter he married in 1870. Retaining and extending his predecessor's *clientèle* he rose to be the most active and popular practitioner in Tweedside, skilful in all surgical and obstetric cases and not less so in medicine proper. He held many appointments under Government and in local administration, being medical referee under the Workmen's Compensation Act, surgeon to the county prison and county poorhouse, parochial medical officer of Eddlestone, local medical officer to the Board of Health, and medical referee to the Scottish Widows Fund and other assurance offices; while in the scientific department of the profession he filled the posts of president of the Border Counties Branch of the British Medical Association, president of the Edinburgh Obstetrical Society, and president of the Edinburgh Harveian Society. His addresses in a presidential capacity were greatly admired for their intellectual breadth and moral sympathy as well as for their scholarly finish of style, particularly those delivered before the Harveian Society and the Obstetrical Society—both being published by request, the latter in the *Edinburgh Medical Journal* for February, 1885. Of his special contributions to professional literature the most important is his "Fatal Case of Post-partum Hemorrhage after Injection of Perchloride of Iron," which appeared in the above-named periodical in 1875. With all this Dr. Connell was a public-spirited citizen and a prominent participant in all discussions bearing on the common weal. A fluent speaker, trained in the Royal Medical Society of Edinburgh, in the debates of which he distinguished himself, he appeared from time to time on the public platform, always in furtherance of hygienic and social reform, mainly in the direction of temperance legislation. Inheriting a special interest in education, he was for 21 years chairman of the school board and left a salutary mark on the burgh in his capacity of justice of the peace and honorary sheriff-substitute of the county. To the last he kept up his academically high standard

of scholarship and formed one of a select society of professional men—clerical, legal, and other—who, not content *ἑ ἀναθλα καραβλῶσαι*, met periodically at each other's houses to read and to discuss some Greek or Roman master-work in the original tongue. In truth, it is difficult to say by what interest, scientific, literary, political, social, or religious, he will not be sorely missed, whether on the school board, where he was an ardent promoter of the recognition of science, natural and physical, in the curriculum; or on the literary platform where he lectured on "Materialism," "Temperance," "Astronomy" (the latter a subject in which he had an expert's knowledge), or on the "Lights and Shadows of the Lifeboat Service"; or in the public meeting where his voice was always raised for "*imperium et libertas*"; or in the Church conferences where his influence went cordially for a healthy latitude of belief in harmony with the reverential spirit. To the youth of his town and neighbourhood, above all to the young professional brother on the threshold of his career, he was the best and steadiest of friends, and many of these now prosperous in practice in distant climes will cherish the memory of the gifted, scholarly, and kindly practitioner whose sun has gone down while it was yet day.

WILLIAM GEORGE NICHOLAS MANLEY, C.B., V.C.,  
M.R.C.S. ENG.,

SURGEON-GENERAL ARMY MEDICAL DEPARTMENT (RETIRED).

SURGEON-GENERAL MANLEY died at his residence in Lansdown-terrace, Cheltenham, on Nov. 16th. Born in Dublin in 1831, the son of a clergyman, he obtained the diploma of M.R.C.S. Eng. in 1852 and in March, 1855, entered the army as an assistant surgeon. The war with Russia was then in progress and he served with the Royal Artillery in the Crimea from June 11th, 1855, being present during the siege and fall of Sebastopol and receiving the medal with clasp and the Turkish medal. He also served with the Royal Artillery in the New Zealand war of 1864-66. During that campaign he volunteered to accompany the storming party at the assault of the Gate Pah near Tauranga on April 29th, 1864, and was awarded the Victoria Cross for risking his life in his endeavour to save that of Commander Hay of the Royal Navy and others. He attended Commander Hay when he was carried away mortally wounded, and then volunteered to return in order to see if he could find any more wounded. It was stated that he was one of the last officers to leave the pah. He also accompanied the field force under General Chute in the expedition from Wanganui to Taranaki, and was present at the assault and capture of several pahs. For these services he received a medal, was thanked in general orders, and was promoted to be staff-surgeon for his "distinguished and meritorious services rendered to the sick and wounded." He also received the bronze medal of the Royal Humane Society for rescuing a gunner of the Royal Artillery who had fallen into the Waitotara river, New Zealand. In the Franco-German war of 1870-71 he was in charge of the B division of the British Ambulance and was attached to the 22nd Division of the Prussian army, accompanying it during the operations consequent on the advance on Orleans. For his services on these occasions he was thanked by General von Wittich commanding the division, and received the German steel war medal, the second class of the Iron Cross, and the Bavarian Order of Merit. He also served in the Afghan war in 1878-79 for which he received a medal, and in the Egyptian war of 1882 as principal medical officer of the 2nd Division. He was present at the battle of Tel-el-Kebir, was mentioned in despatches, was promoted to be deputy-surgeon-general, and received a medal with clasp, the third class of the Osmanieh, and the Khedive's star. He retired from the army in 1884 with the honorary rank of surgeon-general, and was subsequently created Companion of the Bath and Knight of Grace of the Order of St. John of Jerusalem. Deceased has left a widow and five sons and one daughter.

The late Surgeon-General Manley was not only a man of great physical but of great moral courage also—and the two do not by any means always go together. He was a very trustworthy and pleasant comrade. He spared no pains to bring himself up to date in matters connected with the scientific progress of his profession and their application to military surgery as well as in those connected with field hospital administration. He had had great experience in the field, as his long and distinguished record of service

shows, and, whenever needful, was prompt and fearless in assuming responsibility. He believed that "measures not men" was only partially true, because his personal experience and practical acquaintance with life taught him otherwise, and that men of the right stamp and qualifications were just as necessary as the best of measures; he also believed in the influence of rewards and punishments in getting men to do their work well, and in the application of the principle of promotion by selection. If he were unstinted in his praise of any unusual zeal and ability on the part of those serving under him, he was not the man to overlook negligence and want of capacity. In the Egyptian war of 1882 he was placed in charge of the Citadel hospital on the arrival of the British force at Cairo, where he did excellent work. The building which, we believe, had been the Egyptian War Office, was, for one thing, in an indescribable state of uncleanness, and its fitting-out and organisation as a hospital with the work of invaliding going on caused a great strain, but it could not have fallen on a more capable man. He was succeeded in medical charge of this hospital by a very capable officer, the late Deputy-Surgeon-General Barnett.

JAMES MANN WILLIAMSON, M.D. EDIN.

ON Tuesday, Nov. 12th, the Isle of Wight lost one of its best known medical practitioners by the death of Dr. J. M. Williamson of Ventnor, after a long and trying illness patiently borne. He was the son of the late Dr. James Williamson of Petherton-road, London, and formerly of South Shields. He received his school education first in Shields, his native town, and afterwards in the High School of Edinburgh, of which he was one of the most successful and distinguished pupils. Subsequently he was under the educational care of the late Rev. Dr. Angus and prepared for graduation in the University of London, passing the matriculation examination. But he finally decided to graduate in Edinburgh, which he did as M.B. and M.S. in 1872 and as M.D. in 1877. During his career as a student he had several attacks of rheumatic fever which left their impress on his heart and laid the foundation of troubles which in many men tend to spoil life, but only serve to illustrate the inherent and dogged energy of strong characters. He went to Ventnor as resident physician to the Royal National Hospital for Consumption more than a quarter of a century ago and has since been one of its foremost and most consulted practitioners. He was indeed a model adviser, believing in, and enjoying the practice of, his art, and studying not only the disease but the patient also, having capacity for dealing with emergencies as well as with common diseases. Living in Ventnor he naturally gave great attention to the treatment of diseases of the chest. He kept himself abreast of all advance in clinical medicine, diagnostic or therapeutic, and would have made as successful a teacher as he was a practitioner. For many years he was honorary surgeon to the Royal National Hospital for Consumption and it was a disappointment to him that on the death of Dr. Hassall he was not made physician to the hospital. At length, on the death of Dr. J. G. S. Coghill, he was made physician, much to his gratification. But the honour came too late. By this time, after a succession of attacks of influenza, his health was much broken and he was physically unfit to do justice to hospital work in addition to that of his large private practice. After a few months he resigned the appointment. Soon after doing so he had to restrict his private work. In January, 1900, in the middle of one of his illnesses the death of his beloved wife occurred, not suddenly but after a rapid and unexpected illness, and gave a terrible blow to his failing powers. He temporarily recovered, but in the beginning of this year cardiac troubles again laid him aside, and on medical advice he resolved to hand over his practice to his then assistant, Dr. T. A. Ross. In the summer he recovered so far as to be able to get downstairs and to see a patient occasionally in his own house. About three weeks ago with colder and misty weather his cardiac troubles began to get worse and culminated in his death. A few days before his death he had the advantage of a visit from Dr. J. Mitchell Bruce. He was also visited by Dr. J. G. Glover of Highbury, with whom his friendship had been lifelong and unbroken. Dr. Ross was incessant and untiring in his medical attentions to Dr. Williamson. The esteem in which Dr. Williamson was held in Ventnor

and the neighbourhood was great and was shown three days before his death in a way which touched him much. The Vicar of Ventnor visited him and presented him, in the name of a number of his neighbours, patients, and friends, with an antique clock with a double set of chimes, an illuminated address contained in a volume bound in morocco, and a cheque representing the balance of a sum amounting in all to about £200. An equally striking proof of the respect in which Dr. Williamson was held was given on the day of his funeral. All shops were closed and nearly the whole population of Ventnor, including his professional brethren, attended, besides many from other parts of the island. His death at the early age of 52 years leaves a conspicuous blank in Ventnor, where he will be much and long missed. He leaves one daughter and one son.

#### ROBERT BARBOUR McKELVIE, M.D. GLASG.

In the passing away of Dr. Robert Barbour McKelvie Argyllshire and the Western Highlands lose a well-known figure and a most conspicuous personality. When apparently in his usual health he was struck down by apoplexy on the morning of Nov. 5th and succumbed within 10 hours of the seizure. Born in the island of Arran and educated at Ayr Academy, he proceeded to Glasgow University, where he graduated as M.D. in 1858. For two years he acted as assistant, first at Ayr and subsequently at Dalry, Ayrshire. He then obtained the post of medical officer of the united parishes of Appin and Lismore, to which district he afterwards added the adjacent parishes of Ardchattan and Muckairn. It was at the time to him a proud thought that for the 15 years during which he held these posts his medical services were bestowed over a greater area than that held by any other parochial medical officer in Great Britain. His professional skill caused him to be frequently called upon for consultations by his colleagues in different parts of Argyllshire, and over the whole land of Lorne and the island of Mull he was constantly to be met with journeying by ferry or on his pony, and perhaps most often on foot. In 1875 he succeeded the late Dr. Macgilvray and settled at Oban. There for 26 years he was the principal medical figure. But the laborious life of a country practitioner, the broken rest, the long journeys, and the constant exposure to all weathers must eventually tell upon the strongest constitution, and for some time past it was noticed that his erect figure was bending to the weight of years, and that he was losing vigour and becoming prematurely aged. He was carried off before he had reached his sixty-fifth year, yet his end was as he desired it might be. He never witnessed a sudden death without expressing the hope that that might be the mode of his exit from this stage of life. He benefited Oban by his gift of the McKelvie Isolation Hospital for the treatment of infectious diseases, and his fellow-townsmen were indebted to him for innumerable acts of kindness and generosity, friendly counsel, and help in many ways. He was a man of buoyant and genial spirit, and possessed a wonderful facility for repeating anecdotes. The large and sympathetic gathering which attended his funeral on Nov. 9th was a striking testimony to the esteem in which he was popularly held.

#### JOHN PALMER WAY, M.R.C.S. ENG., L.S.A.

By the death of Mr. J. P. Way, which took place at his residence, The Limes, North End, Portsmouth, on Nov. 16th, Portsmouth loses one of its best known practitioners. Born on Nov. 5th, 1838, the son of a local solicitor, Mr. Way was first destined for the legal profession, but eventually became a pupil of the late Mr. Piercy, a Portsmouth practitioner, under the old apprenticeship system. Subsequently he entered as a pupil at St. Thomas's Hospital where he held the appointment of resident accoucheur. Becoming qualified as L.S.A. in 1862 and M.R.C.S. Eng. in 1863 he soon afterwards entered the Royal Navy as assistant surgeon, in which capacity he served until 1867. He then took up his residence at Mile End, Portsmouth, where by his kindness of heart and devotion to his patients he rapidly acquired a large practice. For some years he held the appointment of surgeon to the Royal Portsmouth Hospital. Mr. Way thoroughly recognised a brother practitioner's honour as his own and was always ready to assist in absence or in cases of doubt and difficulty. For some five years past he had suffered from angina pectoris which curtailed his labours

considerably, but he still continued to see his patients. Some two months ago he caught cold, a severe attack of pneumonia supervened, and in spite of all the care bestowed upon him by his medical friends he quietly sank to rest.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

### ORDINARY MEETING.

An ordinary meeting of the Council was held on Nov. 14th, the President, Mr. H. G. HOWSE, being in the chair.

The SECRETARY reported the death, on Oct. 29th, of Mr. Henry Spencer Smith, past member of the Council and of the Court of Examiners. The following resolution was carried:—

The Council do hereby express their sincere condolence with the widow and family of Mr. Henry Spencer Smith in the loss they have sustained by his death, and do also record their appreciation of the services rendered by Mr. Spencer Smith to the College in the conscientious discharge of the several duties which devolved upon him as a member of the Council and of the Court of Examiners.

A letter was read from Mr. E. F. Drake-Brockman, F.R.C.S., offering to the College on behalf of his son, Major Herbert Drake-Brockman, I.M.S., a complete set of surgical instruments used by the "Suttiahs" (or native doctors) of India in operations on the eye. The gift was accepted with thanks.

A letter was read from Miss Bartley of Mitcham offering to the College a pocket-case of surgical instruments which belonged to Mungo Park, and a letter, dated April 6th, 1816, from Sir Anthony Carlisle stating that the case had been given to him by Mungo Park, and presenting it to Miss Bartley's father. The gift was accepted with thanks.

The PRESIDENT laid before the Council a bronze copy of the Cartwright medal.

The PRESIDENT stated that the Bradshaw Lecture would be delivered by Mr. T. R. Jessop on Wednesday, Dec. 11th, at 5 o'clock P.M., and that the subject of the lecture would be, "Personal Experiences in the Surgical Treatment of Certain Diseases."

### ANNUAL MEETING OF FELLOWS AND MEMBERS.

The seventeenth annual meeting of Fellows and Members was held at the College on Nov. 21st, at 3 P.M., the President, Mr. H. G. HOWSE, being in the chair.

The PRESIDENT placed before the meeting the report of the Council for the year ending July 31st, 1901. He drew attention to a few points in the report, especially to the fact that for the first time the names of the Members of the College who had died during the year had been inserted.

Dr. THOMAS MORTON then moved:—

That this annual meeting of Fellows and Members adheres to the opinion, which it has regularly expressed during the last 17 years, that a certain proportion of the College Council should be elected by the Members. As, however, the Council has hitherto refused to entertain this proposal, it is hereby invited to suggest some alternative means by which the Members may be admitted to that share in the direction of the affairs of the College to which they are entitled on account of their membership, their numbers, their professional status, their large contribution to the College income, and by the fact that in them alone is vested the whole of the College property.

He stated his conviction that one day or other this reform would be carried. It was not possible that the 16,000 Members of the College could for ever be debarred from their share in the government of the College. He earnestly asked the Council to suggest some way in which the Members might be represented.

Mr. JOSEPH SMITH, who seconded, expressed his opinion that the suggested change would strengthen the College.

Mr. F. W. COLLINGWOOD said that in these democratic times the constitution of the College should be more democratic.

Surgeon-Major J. INCE considered the constitution to be an anachronism.

Several other Members spoke, and the motion was carried.

Mr. GEORGE BROWN moved:—

That this meeting regrets that the Council has adopted the policy of contravening the regulations of the General Medical Council in the matter of the recognition of scientific institutions, thereby acting disloyally to the General Medical Council and setting an example which, if followed by other licensing bodies, must result in materially lowering the standard of medical education.

He looked upon the action of the College in this matter as tending to retard the improvement of medical education.

Mr. NELSON HARDY seconded.

Mr. T. R. ATKINSON thought it was almost impertinent for the meeting to venture to express an opinion on a matter about which they had not sufficient data.

Mr. BRYANT, though it would be well to postpone the motion as the matter was still *sub judice*.

Mr. W. G. DICKINSON and Mr. J. SMITH having spoken, the PRESIDENT pointed out that the action of the Council had been dictated solely by a desire not to surrender without sufficient reason the legal rights of the College.

The motion was carried by 16 to 6.

Dr. G. DANFORD THOMAS moved:—

That this meeting concurs generally in the suggested amendments to the Medical Acts mentioned as desirable in the letter quoted on pages 5 and 6 of the Report. This meeting regrets, however, that the Council declines to actively promote even those amendments of which it approves, and trusts that it will at least give hearty support to the Bill of the British Medical Association when it comes before Parliament.

He hoped that the Council would consider carefully the Bill, of which he handed in six copies, and if they could see their way to support it it would be of very great service to the Bill.

Mr. DICKINSON seconded, and the PRESIDENT promised that he would bring the matter before the Council.

Mr. BRINDLEY JAMES next moved:—

That this meeting is of opinion that the representative of the College in the General Medical Council should be elected jointly by the Fellows and by Members of 10 years' standing.

He asked that the Council, who had the legal power to do so, would permit the Fellows and Members to elect the representative of the College.

Mr. JOSEPH SMITH seconded, and the PRESIDENT having shown the necessity there was for the representative of the College being a member of the Council of the College, the motion was carried.

The last motion was that of Dr. HERBERT SNOW who moved:—

That it is inadvisable to continue to hold the annual meeting with closed doors; and that the Council be requested to sanction the free admission of the public to the gallery.

He considered that to exclude strangers from the gallery was against the best interests of the College and was against the spirit of the times.

Mr. BRINDLEY JAMES seconded.

The motion was lost by 8 votes to 7.

## Medical News.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following gentlemen having passed the necessary examination have been admitted Licentiates in Dental Surgery of the College:—

Thomas Beaumont, Francis Xavier Costello, Ben Farrar Cowper, and Edward Thomas Patley.

FOREIGN UNIVERSITY INTELLIGENCE.—*Ghent*: Dr. van Duyse and Dr. Gilson have been respectively promoted to Ordinary Professorships of Pathological Anatomy and Pharmacognosy.—*Jena*: Dr. E. Giese has been recognised as *privat-docent* of Forensic Medicine.—*Liege*: Dr. P. Snyers has been appointed Extraordinary Professor of Internal Medicine.—*Munich*: Dr. R. Barlow has been appointed Extraordinary Professor of Dermatology, and Dr. G. Klein Extraordinary Professor of Midwifery and Gynecology.—*Naples*: Dr. Carlo Cucca has been recognised as *privat-docent* of Midwifery and Gynecology. Dr. Giulio Martuscelli as *privat-docent* of Laryngology and Dr. O. Barrago Ciarella as *privat-docent* of Otolaryngology and Rhinology.

THE Lord Chancellor has placed the name of John Horne, M.D., The Wick, Scarborough, on the Commission of the Peace for the North Riding of Yorkshire.

VACCINATION GRANT.—Mr. C. C. Skardon, L.S.A., the public vaccinator of Evershot, has received the Government grant for the second time in succession for successful vaccination in the Beaminster Union Districts.

DEATHS OF CENTENARIANS.—The death occurred on Nov. 11th at Cheltenham of Mrs. Haines at the age of 104 years and eight months.—Mrs. Mary Bown, aged 103 years, died in Milk-street, Bath, on Nov. 14th.

COLSTON DAY IN BRISTOL.—Nov. 13th was observed in Bristol as Colston Day in the customary manner, and at the banquets held in the evening the sum of £3400 was collected for the various charities.

THE Sanitary Institute, in connexion with its recent conference on Water-supply, has held an exhibition of the principal filters alleged to prevent infection, and has given its highest award (the silver medal of the Institute) to the Pasteur-Chamberland filter.

BEQUESTS AND DONATIONS TO HOSPITALS.—The Committee of the North London Hospital for Consumption, Mount Vernon, Hampstead, N.W. have received a donation of £1000 from Mrs. George Field to name a bed in memory of her late husband.

FREE ANTITOXIN.—At a meeting of the Crewe Town Council held on Nov. 9th it was resolved that a minute of the Health Committee deciding on the recommendation of their medical officer of health to supply antitoxin free for cases of diphtheria be confirmed.

ENTERIC FEVER AT PLYMOUTH.—At the meeting of the Plymouth Borough Council held on Nov. 11th the sanitary committee reported, on the authority of the medical officer of health, that the recent outbreak of enteric fever was practically at an end.

TUBERCULOSIS AND MUNICIPAL CORPORATIONS AND COUNTY COUNCILS.—At a meeting of the Council of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, held in London on Nov. 11th, Dr. Nathan Raw brought forward the following motion: "That in the light of our present knowledge the time has now come when the whole question of tuberculosis, including treatment for suitable cases in municipal sanatoria, should be undertaken by the municipal corporations and county councils throughout the country." After full discussion the motion was put from the chair by Sir W. Broadbent, Bart., and seconded by Mr. Malcolm Morris, and carried unanimously.

THE WORKMEN'S COMPENSATION ACT.—At the Taunton County Court on Nov. 12th an undertaker brought an action against a man to recover £9, the expenses of a funeral for his deceased son. Evidence showed that the defendant's son met with a fatal accident at the new Taunton reservoir works for which the father received £50 as compensation from the contractor, and that he promised to pay the undertaker out of this sum. The solicitor for the defence contended that the £50 which were obtained under the Workmen's Compensation Act were not part of the deceased's estate, and therefore the defendant was not liable for funeral expenses out of that sum. His Honour gave judgment for the plaintiff for the amount claimed with costs, and granted leave to appeal.

FREEMASONRY.—*The Sancta Maria Lodge*.—The installation meeting of the Sancta Maria Lodge, No. 2682, was held at Mark Masons Hall on Nov. 12th, when the incoming Master Bro. H. Pearce was installed by Bro. A. P. Luff, whose term of office in the chair had expired. The ceremony was attended by a number of grand officers, among whom were Bro. Clement Godson and Bro. H. W. Kiallmark, and by the masters of many of the kindred lodges, including Bro. Ernest Clarke of the Esculapius Lodge; Bro. Phineas Abraham of the Rahere Lodge; Bro. A. E. Sansom of the London Hospital Lodge; and Bro. T. Wakley, jun., of the Cheselden Lodge. The following were appointed to the principal offices of the lodge: Bro. Handfield Jones, S.W.; Bro. P. P. Whitcombe, J.W.; Bro. Rev. H. S. Cronin, chaplain; Bro. Malcolm Morris, treasurer; and Bro. J. Ernest Lane, secretary. After the Masonic business was finished the brethren to the number of 56 dined at the Freemasons Tavern.

THE NOTIFICATION OF SMALL-POX.—On Nov. 13th Mr. John Padman, M.R.C.S. Eng., of Bloomsbury-square, appeared at Bow-street Police-court to answer a charge made against him by the Holborn Guardians to the effect that he had failed to notify a case of small-pox. The evidence brought forward by the prosecution showed that Mr. Padman was in doubt as to whether the case was one of small-pox or chicken-pox and inclined to the belief that it was chicken-pox. No evidence was called on his behalf, the

counsel for the defence submitting that there was not a particle of evidence to show that any offence had been committed. Mr. Padman had, as a matter of fact, shown commendable caution in arriving at a diagnosis and at the same time had taken every care to check infection. The summons was dismissed without costs. Mr. Padman was defended by the London and Counties Medical Protection Society.

### BOOKS, ETC., RECEIVED.

BAILLIÈRE, TINDALL AND COX, 8, Henrietta-street, Strand, W.C.

Medical Monograph Series, No. 5. Edited by David Walsh, M.D. Menstruation and its Disorders. By Arthur E. Giles, M.D. B.Sc., F.R.C.S., M.R.C.P. Price 2s. 6d. net.  
On the Cure of the Morphia Habit without Suffering (Physiological Demorphinisation). With a Note on the Physiological Method of Relieving the Craving for Drink. By Oscar Jennings, M.D. Paris, M.R.C.S. Eng. Second edition, revised and enlarged. Price 3s. 6d. net.

CASSELL AND COMPANY, LIMITED, London, Paris, New York, and Melbourne.

The Practical Nursing of Infants and Children. By Frank Cole Madden, M.B., B.S. Melb., F.R.C.S., formerly Medical Superintendent of the Hospital for Sick Children, Great Ormond-street, London. Price not stated.

CHARLES GRIFFIN AND COMPANY, LIMITED, Exeter-street, Strand, W.C.

Ferments and their Actions. By Carl Oppenheimer, M.D., Ph.D., Assistant in the Physiological Institute at Erlangen. Translated from the German by C. Ainsworth Mitchell, B.A. Oxon., F.I.C. Price not stated.

CHATTO AND WINDUS, 111, St. Martin's-lane, W.C.

Familiar Studies of Men and Books. By Robert Louis Stevenson. Large type, fine-paper edition. Price 2s. net in cloth; 3s. net in leather.

A Sower of Wheat. By Harold Bindloss, author of "Ainslie's Ju-Ju." "In the Niger Country," &c. Price 6s.

Tales of a Dying Race. By Alfred A. Grace. Price 3s. 6d.

Three Men of Mark. By Sarah Tytler, author of "Citoyenne Jacqueline," "Mrs. Carmichael's Goddesses," &c. Price 6s.

The Cankerworm, being Episodes of a Woman's Life. By George Manville Fenn, author of "The New Mistress," "The Master of the Ceremonies," "A Crimson Crime," &c. Price 6s.

In London's Heart. By George R. Sims, author of "Rogues and Vagabonds," "How the Poor Live," &c. Price 2s.

Only a Nigger. By Edmund Mitchell, author of "The Lone Star Rush," "Plotters of Paris," &c. Price 6s.

Thoreau: His Life and Aims. By H. A. Page, author of "The Life of Thomas De Quincey," &c. Price 2s. 6d.

Told by the Taffrail. By Sundowner, author of "Rambles in Polynesia," "Wild Life in the Pacific," &c. Price 3s. 6d.

The Gentleman's Annual, Christmas, 1901. Containing a complete novel, "As it was written," by T. W. Speight, author of "The Mysteries of Heron Dyke," "The Doom of Silva," &c. Price 1s.

A Versailles Christmastide. By Mary Stuart Boyd. With 53 illustrations by A. S. Boyd. Price 6s.

EYRE AND SPOTTISWOODE, London.

Minutes of Evidence taken by the Indian Plague Commission (1898-99), with Appendices. Volume I. Price 10s. Vol. II. Price 8s. Vol. III. Price 15s. 5d.

Indices to the Evidence, also Glossary, Maps, and Summary of the Report and Appendices. Vol. IV. Price 4s. 3d.

Report of the Indian Plague Commission, with Appendices and Summary. Vol. V. Price 4s. 6d.

HIRSCHWALD, AUGUST, Unter den Linden, 68, Berlin, N.W.

Das Licht als Kraft, und seine Wirkungen. By Dr. Fritz Frankenhäuser, Assistenten an der Königl. medicinischen Universitäts-Poliklinik zu Berlin. Price M.2.

KARGER, S., Karlstrasse, 15, Berlin (WILLIAMS AND NORGATE, 14, Henrietta-street, Covent-garden, W.C.)

Lehrbuch der Nervenkrankheiten für Aerzte und Studierende. By Professor Dr. H. Oppenheim of Berlin. Third enlarged and revised edition. Price 27s. net.

MURRAY, JOHN, 50, Albemarle-street, W.

Impressions of a Doctor in Khaki. By Francis E. Fremantle, M.A., M.B., B.Ch. Oxon., M.R.C.P., late Civil Surgeon to H.M. forces in South Africa. Price 10s. 6d. net.

SMITH, ELDER, AND CO., 15, Waterloo-place, London.

The Great Boer War: A two years' record, 1899-1901. By A. Conan Doyle. With maps. New edition, being the thirteenth impression. Price 7s. 6d.

TOKIO PRINTING CO., LTD., Tokio, Japan.

The Surgical and Medical History of the Naval War between Japan and China during 1894-95. Translated from the original Japanese report, under the direction of Baron Saneyoshi, F.R.C.S. Eng., &c., Director-General of the Medical Department of the Imperial Japanese Navy, by S. Suzuki, M.R.C.S. Eng., L.R.C.P. Lond., &c., Deputy Inspector-General of Hospitals and Fleets, Imperial Japanese Navy. Price not stated.

WILLIAMS AND NORGATE, 14, Henrietta-street, Covent-garden, W.C.

Studies in Heterogenesis. By H. Charlton Bastian, M.A., M.D., F.R.S. First part, with 210 illustrations from photomicrographs. Price 7s. 6d.

WITHERBY AND CO., 326, High Holborn, W.C.

The Royal Navy List Diary and Navy Handbook for 1902. Price 3s. net.

## Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.

AIRD, I., M.B., B.S. Edin., has been appointed Certifying Surgeon under the Factory Acts for the Bangor District of County Down.

BARTON, G. A. H., M.D. Brux., M.R.C.S., L.S.A., has been appointed an Honorary Assistant Anaesthetist to the City Orthopaedic Hospital.

GLOVER, DR., has been appointed Medical Officer of Health, *pro tem.*, to the Woodbridge Urban District Council.

GRIEVES, JAMES P., M.R.C.S., L.R.C.P., has been appointed Medical Officer to the Post Office for the Leytonstone Division.

INGLE, C. D., M.R.C.S., F.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Acts for the Somerton District of the county of Somerset.

JOYNES, FRANCIS JAMES, M.R.C.S., L.S.A., has been re-appointed Medical Officer of Health by the Dursley (Gloucestershire) Rural District Council.

PARRY, LEONARD A., F.R.C.S. Eng., B.S. M.D. Lond., has been appointed Assistant Surgeon to the Sussex Eye Hospital, Brighton.

PATERSON, M. S., M.B., B.S. Durh., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the Hospital for Consumption and Diseases of the Chest, Brompton.

ROCHE, REDMOND, A.B., M.R.C.S., L.R.C.P. Lond., L.M., has been appointed Attending Medical Officer, Westminster Dispensary, Westminster, vice J. E. Sinclair, L.R.C.P. Lond., L.R.C.S., resigned.

SELKIRK, J. FREDERICK, M.B., Ch.B. Edin., has been appointed House Surgeon to the Chichester Infirmary.

TAYLOR, F. E., M.A., M.B., Ch.B., M.Sc., M.R.C.S., L.R.C.P., late Resident Medical Officer is appointed Registrar to the Chelsea Hospital for Women.

THORNTON, GEORGE, M.D., M.S. Edin., M.R.C.P. Lond., M.R.C.S. Eng., D.P.H. Oxford, has been confirmed in his appointment as Medical Superintendent of the Civil Hospital, Pretoria, by His Excellency Lord Milner, the administrator of the Transvaal.

WATSON, DR., has been appointed Medical Officer to the District Council of Cottingham.

WIGHTWICK, CHARLES PITT, M.R.C.S., L.S.A., has been re-appointed Medical Officer of Health for Malmesbury.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BEVERLEY DISPENSARY AND HOSPITAL.—Medical Officer and Dispenser. Salary £160 per annum.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES, Birmingham.—Clinical Assistant.

BRACEBRIDGE ASYLUM, near Lincoln.—Junior Assistant Medical Officer, unmarried. Salary £125 per annum, with apartments, board, attendance, &c.

BRADFORD CHILDREN'S HOSPITAL.—House Surgeon. Salary £100, with board, residence, and washing.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, unmarried. Salary £100 per annum, with board and residence.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn-road, W.C.—House Surgeon. Salary at rate of £50 per annum, with board and residence.

CHESTER GENERAL INFIRMARY.—House Physician. Salary £90 per annum, with residence and maintenance.

COUNTY ASYLUM, Mickleover, Derby.—Senior Assistant Medical Officer. Salary £150, rising to £180 per annum; also Junior Assistant Medical Officer. Salary £120, rising to £150 per annum; both with apartments, board, washing, and attendance.

COUNTY OF EAST SUSSEX.—Medical Officer of Health. Salary £200 per annum, with fees, &c.

CROYDON GENERAL HOSPITAL.—Senior and Junior House Surgeons, unmarried. Salary, senior £105, junior £80, with board, laundry, and residence.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—House Surgeon and Assistant House Surgeon. Salary, House Surgeon £100 per annum, Assistant £50 per annum, with apartments, board, and lodging.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—House Physician, for six months. Honorarium of £25, with board and residence.

GENERAL INFIRMARY, Leeds.—Resident Surgical Officer. Salary £100 per annum, with board, residence, and washing.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.O.—House Physician, unmarried, for six months. Salary £20, washing allowance, and board and residence in the hospital.

HOSPITAL FOR WOMEN, Soho-square.—Clinical Assistantships.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST (In-patient Department, Bowdon, Cheshire).—Resident Medical Officer. Salary £100 per annum, with board, apartments, washing, and railway contract to Manchester.

MIDDLESEX HOSPITAL, W.—Medical Officer and Registrar to the Cancer Department. Salary £100 per annum, with board and residence.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer and also Assistant Resident Medical Officer. Salary at rate of £50 per annum attaches to each post, with board, residence, and washing.

NORTH STAFFORDSHIRE INFIRMARY AND HYE HOSPITAL, Hartshill, Stoke-upon-Trent.—House Surgeon. Salary £120 per annum, with increase, and apartments, board, and washing.

NOTTINGHAM GENERAL HOSPITAL.—House Surgeon. Salary £100, rising to £120, with board, lodging, and washing.

OWENS COLLEGE, Manchester.—Assistant Lecturer in Pathology. Stipend £150 per annum.

PADDINGTON GREEN CHILDREN'S HOSPITAL, London, W.—Honorary Dental Surgeon.

PERTH DISTRICT ASYLUM, Murthly. — Assistant Physician, unmarried. Salary £110, with apartments, board, attendance, &c.

POPLAR HOSPITAL FOR ACCIDENTS, Poplar, E.—Assistant House Surgeon, for six months. Salary at rate of £80 per annum, with board and residence.

ROYAL ALBERT EDWARD INFIRMARY, Wigan.—Junior House Surgeon. Salary £80 per year, with rations and apartments.

ROYAL EAR HOSPITAL, Soho.—House Surgeon. Small honorarium.

ROYAL HANTS COUNTY HOSPITAL.—House Physician, unmarried. Salary £65 per annum, rising to £75, with board, residence, &c.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge-road, S.E.—Resident Medical Officer, for four months. Salary at rate of £70 per annum.

ROYAL HOSPITAL FOR INCURABLES, Donnybrook, Dublin.—Resident Medical Officer. Salary £100 per annum, with board and apartments.

ROYAL INFIRMARY, Sheffield.—Casualty Officer. Salary £100 per annum, with board, lodging, and washing.

ST. MARLEBONE GENERAL DISPENSARY, 77, Welbeck-street, Cavendish-square.—Resident Medical Officer. Salary 100 guineas per annum, increasing to 120 guineas, with apartments, attendance, coal, and light.

ST. MARY'S HOSPITAL FOR SICK CHILDREN, Plaistow, E.—Assistant Resident Medical Officer (unmarried) for six months. Salary £80 per annum, with board, residence, laundry, &c.

ST. MARY'S HOSPITAL, Quay-street, Manchester.—House Surgeon and Resident Obstetric Assistant Surgeon. Salary £100 per annum, with board and residence.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road.—Honorary Physician.

SCHOOL BOARD FOR LONDON.—Medical Officer. Salary £800 a year, rising to £1000 a year.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Assistant House Surgeon for six months. Salary at rate of £50 per annum, with food and residence.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

STOCKTON AND THORNABY HOSPITAL, Stockton-on-Tees.—House Surgeon. Salary £200 per annum.

SUSSEX COUNTY HOSPITAL, Brighton.—Third House Surgeon, unmarried. Salary £80 per annum, with board, residence, and washing.

THROAT HOSPITAL, Golden-square, W.—Three Honorary Anaesthetists.

WEST HAM UNION.—Lady Assistant Medical Officer. Salary £100 per annum, with residential allowances.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician; also House Surgeon for six months. Board and lodging are provided.

WINDSOR AND ETON ROYAL DISPENSARY AND INFIRMARY.—House Surgeon, unmarried. Salary £120 per annum, with residence, board, washing, and attendance.

WILTS COUNTY ASYLUM.—Assistant Medical Officer, unmarried. Salary £150, rising to £180, with board, residence, attendance, and washing.

WORCESTER COUNTY AND CITY ASYLUM.—Junior Assistant Medical Officer. Salary £120 per annum, increasing to £150, with board, apartments, and washing.

The Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies under the Factory Acts as Certifying Surgeons at Camolin, in the county of Wexford; at Doncaster, in the West Riding of the county of York; at Stewarton, in the county of Ayr; at Ballyroan, in Queen's County; and at Monasterevan, in the county of Kildare.

## Births, Marriages, and Deaths.

### BIRTHS.

ATKINSON.—On Nov. 14th, the wife of G. L. Atkinson, M.R.C.S., L.R.C.P. Lond., of a daughter.

DEANESLY.—On Nov. 18th, the wife of Edward Deanesly, M.D. Lond., of a daughter.

MACLEAN.—On Nov. 15th, the wife of Kenneth Maclean, F.R.C.S. Edin., of a daughter.

MARSHALL.—At Rawalpindi, Punjab, India, on the 16th inst., the wife of Major D. G. Marshall, I.M.S., 17th Bengal Lancers, of a son.

OSBORN.—On Nov. 5th, the wife of F. A. Osborn, M.R.C.S., L.R.C.P. Lond., of a son.

### MARRIAGE.

HYDE—ROLLESTON.—On Nov. 12th, at St. Mary-le-Strand, Patrick George Hyde, M.B., to Minnie Carson Rolleston, only daughter of the late Archibald Rolleston of Drogheda.

### DEATHS.

MANLEY.—On Nov. 16th, at Lansdown-terrace, Cheltenham, Surgeon-General William George Nicholas Manley, C.B., V.C., M.R.C.S. Eng., Army Medical Staff (retired), son of the late Rev. William Nicholas Manley, in his 70th year.

STURGES.—On Nov. 16th, at Garth, Baird's-hill, Broadstairs, Montague James Sturges, M.D. Edin., aged 66.

SUTHERLAND.—On Nov. 19th, at 21, New Cavendish-street, Portland-place, W., Henry Sutherland, M.A., M.D. Oxon., M.R.C.P., second son of the late A. J. Sutherland, M.D., F.R.C.P., F.R.S., aged 59.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## Notes, Short Comments, and Answers to Correspondents.

### DOUBTFUL COMPLIMENTS.

"Dr. H. S. Lunn, Mr. W. H. Lunn, and Mr. Connop F. Perowne present their compliments to

Dr. ....

and invite him to stay for one week at the Hotel Eiger, Grindelwald, during the skating season,

or

the Hotel Marini, the Hotel Roma, or the Hotel Russie, Rome, on one of the dates mentioned overleaf, and on the conditions there stated."

The above is a faithful rendering of a document which we have received, in company, we gather from "the conditions stated over-leaf," with a few other selected medical men. At first we thought it a very generous offer on the part of Messrs. Lunn, Lunn, and Perowne, but on turning to the conditions over-leaf we changed our opinion. The three gentlemen, to do them justice, make no secret of why they make this offer. "This invitation," they say, "is given with the object of making known to the medical profession the economical advantages of the system of travelling in groups on the outward journey with the right of independent return, the excellence of our hotels and our general arrangements, and also the charms of the High Alps in the winter season, and the climatic advantages and other attractions of Rome during the winter. The invitation is given on the understanding that those who accept it will take tickets from our offices and travel with our parties on the dates mentioned below, such tickets being charged for only at the rate at which ordinary return tickets can be purchased." The prices, we learn, are for Rome, first-class return, £16 1s. 8d.; for Grindelwald, first-class return, £10 1s. 3d. No charge is made for hotel accommodation in either Rome or Grindelwald during the week. The invitation is strictly personal and those not favoured with it must pay ordinary rates—namely, Rome £17 17s., or Grindelwald, £12 12s. Thus it will be seen that the offer is not much measured in sordid dross. It is only £1 15s. 4d. in the one case and £2 10s. 9d. in the other. We do not think it right for a tourist agency to conduct its business in this manner.

### CHEAP PISTOLS.

To the Editors of THE LANCET.

SIRS.—Your articles on the "cheap pistol" craze tempt me to chronicle a case that came under my notice. Some few months ago, whilst acting as locum, a boy was brought to me suffering from a bullet wound inflicted accidentally, though through gross carelessness, by a friend of his. The pistol was of the "toy" variety, although it took a conical bullet. The wound was in the abdomen, about three inches above the pubes and almost in the middle line. I probed the wound and found that the track made by the projectile was in the layers of the anterior abdominal wall. The bullet I could not localise, so I carefully washed and dressed the wound. No bad symptoms occurred and the wound healed rapidly.

I am, Sirs, yours faithfully,

EDGAR WHALLEY, M.R.C.S. Eng., L.R.C.P. Lond.

Lancaster, Nov. 17th, 1901.

### THE VALUE OF A BOOK.

To the Editors of THE LANCET.

SIRS.—Can any of your readers tell me the value of a book entitled "Elementa Physiologiae Corporis Humani," Auctore Alberto v. Haller. Four volumes. Published in 1762 at Lausanne by Franciscus Grasset.

I am, Sirs, yours faithfully,

Nov. 14th, 1901.

S. E. L.

### A CASE OF MALINGERING.

To the Editors of THE LANCET.

SIRS.—Mr. Donaldson-Sim's letter published in THE LANCET of Nov. 9th, p. 1314, recalls to my mind a malingerer whom I had to deal with as far back as in 1896. During that year I was temporarily at the Poplar Hospital. A man walked into the receiving-room and said that whilst working on the Great Eastern line he had been hit in the abdomen by a telegraph pole. He had vomited, he said, and the abdomen was hard and distended and very painful (apparently). There was an old laparotomy scar; the operation, he stated, had been done in Montreal. He was admitted to be watched, as his pulse and general condition did not indicate any serious abdominal injury. He did not vomit again and was discharged for insolence the next day. Early in 1897 I was house surgeon at the London Hospital. The same man was admitted into the wards under my care with the same history and identical condition of abdomen as observed at Poplar. The scene of the accident was transferred to the Underground at St. Mary's station. Unfortunately for him I recognised him. He worked his temperature

up to 105°, and became so abusive and noisy when the sister of the ward attempted to hold the thermometer under his arm that I had to have him removed to the padded room. There with some considerable trouble I took his temperature in the rectum and found it normal. He discharged himself next morning. At both hospitals he gave the name of James Dutton. I found that he had been in London Hospital 18 months previously and was marked on the register as discharged "by himself." He had not then a laparotomy wound, so he had induced some confiding surgeon to open his abdomen soon after his first stay with us. No doubt this man has been imposing on public charities for at least seven years. I would suggest that the authorities of the next hospital he victimises should hand him over to the police either for "obtaining food and lodging by false pretences" or as "a rogue and a vagabond."

I am, Sirs, yours faithfully,

Stoke Newington, Nov. 12th, 1901.

PHILIP WILLIAMS.

#### MR. YORKE-DAVIES.

To the Editors of THE LANCET.

SIRS,—Your remarks in THE LANCET of Nov. 16th, p. 1387, oblige me again to write. I inclose you my secretary's shorthand notes of my dictated letter, and you will see that it is written to Mr. T. P. O'Connor and not to the Editor of M.A.P. With regard to advertising, may I point out that in these days THE LANCET may be found in all clubs and in many of the hotels; indeed, not only THE LANCET but other medical papers, and that these papers are read by 10, or probably 50, times the number of lay readers to medical men. Surgeons and medical men give their experience (and that very rightly) in these papers as I did to Mr. O'Connor, and therefore are really advertising themselves "in *excessu*," in my opinion quite legitimately. It has always struck me as an anomaly that though all lay papers are allowed to advertise barristers, military men, artists, and, indeed, every other profession as a matter of course, they must not do so in the case of members of the medical profession. I do not make these observations in the unkindly spirit that you have displayed towards me in the recent comments you have made. Trusting you will find room for this letter, I hope my last,

I am, Sirs, yours faithfully,

Harley-street, W., Nov. 18th, 1901.

N. E. YORKE-DAVIES.

\* The shorthand notes are addressed to Mr. O'Connor. And it seems that Mr. Yorke-Davies still maintains that Mr. O'Connor was guilty of a breach of confidence when he published in his paper, M.A.P., a letter intended for his private eye only. We also gather that Mr. Yorke-Davies has no objection to securing publicity, though he resents any suggestion that he has tried to obtain it. Mr. Yorke-Davies does not say how his letter upon his system of treatment for obesity came to appear in *Modern Society*, but we can quite understand that an explanation is not easy. We disclaim any animus against Mr. Yorke-Davies, while admitting the greatest distaste for his ethical views.—Ed. L.

#### A NOVEL SCISSORS SHARPENER.

A SIMPLE contrivance for keeping scissors sharpened is a rounded piece of glass, about three inches long, upon which the scissors are drawn a few times backward and forward, as in the act of cutting. Messrs. Ellen and Co., of 118, Fenchurch-street, London, E.C., supply it for 4d., post free.

#### "LOOKING BACK."

A CORRESPONDENT signing himself "Vacca," who confesses his ignorance, asks us to tell him who was Blackmore, the poet from whom the quotation was taken which appeared in THE LANCET of Nov. 16th, 1823, and which we reprinted last week. Richard Blackmore, M.D., was born at Corsham in 1650. He was educated at Westminster School and took his degree at Padua. He was knighted by William III. and produced a vast quantity of writings. One poem—namely, "Creation"—must have been good for it was praised by two such competent critics as Addison and Johnson. Besides his poems and a new version of the Psalms he wrote sundry medical works.

B. J. H.—The information supplied is not sufficient to enable us to give a definite answer to the question. The section of the Lunacy Act put in action is not stated. If the patient was dealt with under Section 13 of the Lunacy Act, 1890 (and this appears probable by two medical certificates being required), the justice should have made an order upon the guardians for the payment of a "reasonable remuneration," in accordance with Section 285 of the same Act. The fee is payable whether the alleged lunatic is a pauper or not. If the patient was removed under Section 20 our correspondent would be entitled to the justice's order for a fee, but if under Section 4 he would not. Much trouble would be saved if medical men certifying for alleged lunatics would furnish themselves with blank orders for payment of fees and would lay one of them before the justice at the time of submitting the certificate of insanity. The forms are supplied by Messrs. Knight, La Belle Sauvage, E.C.

L.R.C.S. & P.—We think that all druggists should make a habit of returning prescriptions. In our correspondent's case he does not seem to have inquired for his prescription until two and a half years after he had given it to the druggist, so that he must not be surprised that it was not forthcoming.

Podagra.—We do not give medical advice. The question is one that should be put to the family medical man.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

B. J. P.—Diseases of the Lungs and Pleura, including Consumption, by Sir Richard Douglas Powell.

#### METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 21st, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 a.m.
Nov. 15	29.58	W.	...	56	42	30	30	31	Foggy
" 16	29.94	N.	...	48	40	31	31	32	Foggy
" 17	30.32	W.	...	59	42	26	Fzn	28	Fine
" 18	30.33	W.	...	56	52	28	38	39	Cloudy
" 19	30.12	W.	...	58	54	39	50	52	Overcast
" 20	29.95	N.W.	...	62	56	51	50	53	Cloudy
" 21	29.84	S.W.	...	57	54	49	48	51	Raining

## Medical Diary for the ensuing Week.

### OPERATIONS.

#### METROPOLITAN HOSPITALS.

**MONDAY (25th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynaecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopedic (2 P.M.), City Orthopedic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

**TUESDAY (26th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Bar (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**WEDNESDAY (27th).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopedic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

**THURSDAY (28th).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynaecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**FRIDAY (29th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square, (9.30 A.M.), City Orthopedic (2.30 P.M.).

**SATURDAY (30th).**—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

### SOCIETIES.

**MONDAY (25th).**—MEDICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Discussion on the Symptoms and Treatment of Floating Kidney (opened by Mr H. Morris.) (Council Meeting Night.)

OPHTHALMOLOGICAL SOCIETY OF GREAT BRITAIN (20, Hanover-square, W.).—7 P.M. Council. 8 P.M. Communications:—Mr. E. W. Roughton: A Case of Alveolar Abscess followed by Necrosis.

Cellulitis, and Fatal Hemorrhage.—Mr. A. S. Underwood: Unexpected Outcome of a Regulation Case. Paper:—Mr. W. O. Grayston: Science in Dentistry and a few Experiments in Gold Filling.

**TUESDAY (26th).**—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Papers:—Mr. T. Bryant: Case of Intestinal Obstruction due to the Pressure of a Vesical Sacculus upon a Coil of Small Intestine.—Dr. A. B. Gartrod:—About Alkaptonuria.

**WEDNESDAY (27th).**—DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND (20, Hanover-square, W.).—5 P.M. Meeting.

HUNTERIAN SOCIETY (London Institution, Finsbury-circus, E.C.).—8.30 P.M. Pathological Evening.

#### LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

**MONDAY (25th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. M. Morris: Clinique. (Skin.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Paget: Cancer of the Breast.

NATIONAL INDIAN ASSOCIATION (Jehanghir Hall, Imperial Institute-road, S.W.).—4.30 P.M. Dr. M. L. Dhingra: Indian Sanitation, a Personal View.

**TUESDAY (26th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. W. Ewart: Clinique. (Medical.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Abraham: Skin Cases.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. J. Taylor: Hemiplegia.

**WEDNESDAY (27th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. P. W. de Santi: Clinique. (Surgical.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Saunders: Therapeutics.

LONDON THROAT HOSPITAL (204, Great Portland-street, W.).—5 P.M. Dr. Kelson. (Post-Graduate Course.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. P. Kidd: Laryngeal Tuberculosis.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL (Gray's Inn-road, W.C.).—8 P.M. Dr. Holloway: Diseased Conditions of the Fauces and Pharynx.

**THURSDAY (28th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Beddard: Some Points in the Treatment of Bright's Disease.

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Mr. Steward: The Surgical Treatment of Infantile Paralysis.

CHARING-CROSS HOSPITAL.—4 P.M. Dr. Mott: Medical Cases. (Post-Graduate Course.)

LONDON TEMPERANCE HOSPITAL (Hampstead-road, N.W.).—2 P.M. Dr. S. Fenwick: Clinical Demonstration.

**FRIDAY (29th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. E. Clarke: Clinique. (Eye.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. S. Taylor: Medical Anatomy.

LONDON TEMPERANCE HOSPITAL (Hampstead-road, N.W.).—2 P.M. Dr. P. Parkinson: Clinical Demonstration.

#### EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

#### MANAGER'S NOTICES.

##### TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	... £1 12 6	One Year	... £1 14 8
Six Months	... 0 16 3	Six Months	... 0 17 4
Three Months	... 0 8 2	Three Months	... 0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or on any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and Agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

During the week marked copies of the following newspapers have been received:—Building News, Dorset County Chronicle, Bath Chronicle, Leicester Daily Post, Infant's Magazine, Leicester Daily Mercury, Bath Herald Weekly, Surrey and Hants News, Leek Times, Cumnock Express, Rutland Echo, Oban Express, Daily Telegraph, Sussex Coast Mercury, Workop Guardian, Sunderland Herald and Daily Post, Glasgow Herald, Batley News, Nuneaton Advertiser, The Tribune (Warwickshire), Jedburgh Post, East Anglian Times, Jewish World, Echo, Teviotdale Record, Brewing Trade Review, Chronicle, Leeds Mercury, Brick and Pottery Trades Journal, Carriage Builders' Journal, &c.

### Communications, Letters, &c., have been received from—

- A.**—Dr. P. H. Abercrombie, Lond.; Monsieur J. Astier, Asnières; Messrs. Arnold and Sons, Lond.; Apollinaris Co., Lond.; Anglo-American and Continental Pharmaceutical Co., Lond.; Arrow-smith Co., Newark, U.S.A.
- B.**—Mr. C. Birchall, Liverpool; Messrs. Bedford and Co., Lond.; Messrs. Brand and Co., Lond.; Bradford Children's Hospital, Secretary of; *Brighon Gazette*; Mr. A. Baxendell, Churt; Miss Christiana S. Bremner, Florence; Mr. Buckston Browne, Lond.; Dr. J. Braithwaite, Leeds; Dr. J. Percival Brown, Manchester; Mr. H. L. Barnard, Lond.; Dr. F. J. Barker, Lond.; Dr. E. F. Buzzard, Lond.; Mr. C. J. Bond, Leicester; British Fuel Economiser, &c., Co., Lond.; Secretary of; Dr. W. Bruce, Dingwall; Dr. W. F. V. Bonney, Lond.; Mr. C. L. Bedford, Birmingham; Dr. F. A. Brockhaus, Lond.; Dr. J. T. Brown, Tarkaston.
- C.**—Dr. L. M. Chesney, Lond.; Messrs. Callard and Co., Lond.; Messrs. Carrick and Co., Lond.; Messrs. E. Cook and Co., Lond.; C. A. J.; Mr. J. B. Cameron, Lond.; Chester General Infirmary, Secretary of; Messrs. J. A. Carveth and Co., Toronto, Canada; Calf, Kintbury; Dr. Thompson Campbell, Glasgow; Mr. J. H. Chaldecott, Lond.; Clayton Fire Extinguishing, &c., Co., Lond.; Secretary of.
- D.**—Messrs. J. Defries and Sons, Lond.; Mr. T. Dixon, Lond.; Messrs. Davis and Ormiston, Lond.; Mr. E. Darke, Lond.; Messrs. H. Dawson and Co., Lond.; Messrs. A. De St. Dalmas and Co., Leicester.
- E.**—Mr. W. Escombe, Grimaby; Miss Evans, Bolton; Electrical Ozone and Light Treatment, Lond.; Secretary of; Electric Lamp Regenerating Co., Lond.; Secretary of; Examination Hall, Lond.; Secretary of.
- F.**—Mr. A. Fawcett, Birmingham; Dr. T. C. Fisher, Blagdon; Messrs. Fletcher, Fletcher, and Co., Lond.; F. P.
- G.**—Dr. W. A. Galton, Lond.; Mrs. Gann, Hayling Island; Glasgow Southern Medical Society, Editorial Secretary of.
- H.**—Mr. F. R. Humphreys, Lond.; Mr. C. H. Huish, Lond.; Hovis Bread Flour Co., Macclesfield; Mr. H. J. Hall, Manchester; Mrs. H. Hertford; Dr. T. H. Hunt, Halifax; Hastings, Town Clerk of.
- I.**—Mr. E. C. B. Ibbotson, Lond.; Irish Medical Schools and Graduates Association, Dean of.
- J.**—Dr. Robert Jones, Woodford Bridge; J. G.; J. J.; J. H.; J. H. A.
- K.**—Mr. R. B. B. Kerin, Lond.;
- Messrs. R. A. Knight and Co., Lond.
- L.**—Dr. W. J. Le Grand, South Normanton; Dr. T. G. Lyon, Lond.; Dr. C. H. Leaf, Lond.; Messrs. C. and E. Layton, Lond.; La Parole, Paris, Editor of; Dr. A. Leitch, Gourrock; Miss Leech, Lond.; Mr. C. Lindsay, Slaidburn; Leith Hospital, Secretary of.
- M.**—Dr. D. J. Macaulay, Halifax; Messrs. Mather and Crowther, Lond.; M. J.; Melbourne House, Leicester, Principal of; Dr. M.; Dr. C. F. Moore, Dublin; Dr. B. E. Myers, Lond.; Male and Female Nurses' Association, Lond.; Lady Superintendent of; Mr. E. C. Masey, Moseley; Manchester Hospital for Consumption, Secretary of.
- N.**—Messrs. Nicolay and Co., Lond.; North London Hospital for Consumption, Secretary of; North Staffs Infirmary, Hartshill, Secretary of; Nurses' Institute, Canterbury, Lady Superintendent of; Nottingham General Hospital, Secretary of; Mr. H. Needes, Lond.; Mr. J. C. Needes, Lond.
- O.**—Messrs. Orridge and Co., Lond.
- P.**—Dr. J. B. Pike, Loughborough; St. Pancras Borough, Medical Officer of Health of; P. V.; Mr. Y. J. Pentland, Edinburgh; Mr. T. Pabst, Bath; Perth District Asylum, Superintendent of; Mr. J. C. Platt, Lond.; Mr. E. A. Piggot, Clare, Suffolk; Mr. Victor G. Piarr, Lond.; Mr. J. Padman, Lond.; Dr. C. T. Parsons, Lond.; Messrs. Peacock and Hadley, Lond.
- R.**—Dr. Guthrie Rankin, Lond.; Dr. Nathan Raw, Liverpool; Royal College of Surgeons in Ireland, Registrar of; Royal Aquarium, Managing Director of; Messrs. Ridges and Sons, Wolverhampton; Mr. W. Randall, Bridgend; Royal Hants County Hospital, Winchester, Secretary of; Dr. J. Riviere, Paris; Messrs. Reynolds and Branson, Leeds; Royal Hospital for Incurables, Dublin, Secretary of.
- S.**—Mr. J. L. Stretton, Kidderminster; Mr. J. Startin, Lond.; Messrs. W. B. Saunders and Co., Lond.; Sussex County Hospital, Brighton, Secretary of; Messrs. Street and Co., Lond.; Society for the Study of Disease in Children, Hon. Secretary of; Messrs. G. Street and Co., Lond.; Society of Anaesthetists, Secretary of; Scholastic, Clerical, &c., Association, Lond.; Surgeon R. W. Stanistreet, R.N., Portsmouth.
- T.**—Toddington Orchard Co., Winchcombe; T. S. P.
- U.**—Mr. F. Upsher-Smith, Watford.

V.—Vinolia Co., Lond.; Messrs. G. Van Abbott and Sons, Lond.; Dr. Vincent, Lond.

W.—Dr. A. A. Warden, Paris; Dr. A. McCook Weir, Liverpool; Messrs. Willows, Francis, Butler,

and Thompson, Lond.; Wills, Ltd., Lond.; Dr. Hugh Woods, Lond.; Mr. A. W. Wigmore, Lond.; W. M. O. C.; Messrs. Willing, Lond.; W. J. R.

Y.—Mr. T. E. Young, Lond.

### Letters, each with enclosure, are also acknowledged from—

- A.**—Dr. J. P. Aitchison, Blackburn; A. G. B.; A. L. S.; Alpha, Bristol; A. D. J.; A. W. T.
- B.**—Dr. W. B. Bell, Alghurth; Dr. C. S. Blythman, Swinton; Bradford Union, Clerk of; Mr. H. Brook, Weston-super-Mare; Mr. D. Biddle, Kingston-on-Thames; Bristol General Hospital, Secretary of; Messrs. D. Browne and Son, Tyrone; Birkenhead and Wirral Children's Hospital, Hon. Treasurer of; Birmingham and Midland Skin, &c., Hospital, Hon. Treasurer of; Mr. C. Bryant, Lond.; Sir William M. Banks, Liverpool; Dr. T. A. Bowes, Herne Bay; Mr. H. Burt, Brighton; Messrs. Burroughs, Wellcome, and Co., Lond.; Mr. G. D. Bateman, Cork; B. O. R.
- C.**—Dr. E. P. Cathcart, Glasgow; City Advertising Agency, Lond.; Mr. G. W. K. Crosland, Huddersfield; C. A. R.; C. S. B.
- D.**—Mr. W. F. Dale, Sheffield; Mr. J. T. Davenport, Lond.; Mr. A. Driver, Chelmsford; Dr. P. J. Daly, Cork; Dr. D.
- E.**—Miss Etheridge, Lond.; E. S.; Emperor Frederick Spring, Offenbach, Germany; E. D.; Dr. W. A. Evelyn, York.
- F.**—Mr. J. M. Forbes, Greenock; Miss Lena Fox, Wimbledon; Francis, Stevensage; F. E. H.; Mr. E. J. Foulston, Liverpool.
- G.**—Dr. S. A. Gill, Formby; Messrs. Guyot-Guenin and Son, Lond.; Messrs. C. Griffin and Co., Lond.; Dr. H. W. Gardner, Shrewsbury; G. A. H.
- H.**—Mr. J. H. Harris, Blisworth; Mr. D. Heron, Ballynahinch; Messrs. C. J. Hewlett and Son, Lond.; Mr. G. F. Henry, Lond.; Mr. E. Huxley, Lond.; Hull Royal Infirmary, Secretary of; Mr. D. S. Henderson, Dunoon; Mr. J. Heywood, Manchester; Mr. J. H. Harris, Gayton; Mr. T. Homer, Cradley; Dr. D. V. Haig, Thirsk.
- I.**—International Plasmon, Lond.
- J.**—Dr. C. H. L. Johnston, St. John, New Brunswick; J. L. C.; J. I.; J. W.; J. T. C. C.; J. S. H.; J. C. B.; J. S. L.; Mr. E. O. Jones, Bethesda.
- K.**—Dr. R. Kirk, Partick; Dr. E. E. Klein, Lond.
- L.**—Dr. A. W. W. Lea, Manchester; London College of Pharmacy for Ladies, Principal of; Locum Tenens, Leicester; Mrs. Lappin, Gilford, Ireland; Dr. L.; Mr. H. K. Lewis, Lond.; Liverpool Hospital for Women, Treasurer of.
- M.**—Mr. H. Martindale, Lond.; Mr. T. H. Morse, Norwich; Mr.
- T. Messenger, Kirkbridge, Carlisle; Manchester Clinical Hospital, Secretary of; Mr. A. D. MacLeod, Allahabad, India; Mr. P. J. Murphy, Aberlure; Mr. G. W. Moseley, Bulth; Messrs. Meldrum Bros., Lond.; Mr. D. Macdougall, Greenock; C. Midgley, Ltd., Manchester; Mr. S. H. Merryweather, Coningsby; Manchester Royal Eye Hospital, Secretary of; Dr. G. de Maurans, Paris; Dr. J. F. D. Macara, Durness; Dr. A. Marriott, Aldeburgh.
- N.**—National Provident Institution, Lond.
- O.**—Mr. F. A. Osborn, Dover; Oldham Infirmary, Secretary of; Ovo, Ltd., Lond.
- P.**—Mr. J. A. Procter, Lydd; Dr. F. W. Pavy, Lond.
- Q.**—Mr. H. C. Quin, Mountain Ash.
- R.**—Dr. W. G. Richardson, Newcastle-on-Tyne; Royal Victoria Hospital, Belfast, Secretary of; Mr. R. Rowlands, Criccieth; Royal United Hospital, Bath, Secretary of; R. G.; R. P. R.; R. I.; Royal Victoria Hospital, Bournemouth, Secretary of; Dr. W. Ross, West Hartlepool; Mr. A. C. Roper, Exeter; Mr. J. S. P. Rodrigues, Pontypridd; R. S.
- S.**—Miss E. Spencer, Plymouth; Smedley's Hydro, Matlock; Dr. S.; Somerset and Bath Lunatic Asylum, Cotford, Clerk of; Dr. E. W. Saunders, Newbury; Major F. Smith, R.A.M.C.; Sierra Leone; Mr. T. J. Scott, Lond.; S. D. S.; S. R. M.; Mr. J. Sellers, Lond.; S. H. M.; Messrs. Spiers and Pond, Lond.; Messrs. T. and H. Smith and Co., Edinburgh; Surgeons' Hall, Edinburgh, Treasurer of; Mr. D. Samuel, Aberavon; Mr. F. J. Steward, Lond.
- T.**—Mr. W. H. Thomas, Bath; Dr. J. H. Tonking, Camborne; Dr. J. Taylor, Lond.; Dr. Tate, Rothwell; T. A. L.
- U.**—Miss A. C. Underwood, Torquay.
- W.**—Dr. W. A. H. Waite, Leeds; Mr. R. M. Wright, Burwell; W. M. A. A.; W. J. S. London-derry; Mr. J. Worrall, Southport; Mr. H. J. Walker, Lond.; Messrs. H. Wilson and Son, Lond.; West Bromwich District Hospital, Secretary of; W. V. R.; Dr. James Wilson, Liverpool; Weir Hall, Edmonton, Proprietor of; Mr. H. F. Wigg, Lond.; Messrs. Wyleys, Coventry.
- Y.**—Yorkshire College, Leeds, Secretary of.
- Z.**—Z., Manchester.

EVERY FRIDAY.

## THE LANCET.

PRICE SEVENPENCE.

### SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.

One Year	£1 12 6
Six months	0 16 3
Three Months	0 8 2

TO THE COLONIES AND ABROAD.

One Year	£1 14 8
Six months	0 17 4
Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice but is in itself an additional advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance. Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

### ADVERTISING.

Books and Publications	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £2 5s.

Terms for Position Pages and Serial Insertions on application.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

# An Address

ON

## THE SYMPTOMS AND TREATMENT OF MOVEABLE KIDNEY.

Delivered before the Medical Society of London on Nov. 25th,  
1901.

By HENRY MORRIS, M.A., M.B. LOND.,  
F.R.C.S. ENG.,

SURGEON TO THE MIDDLESEX HOSPITAL.

GENTLEMEN,—When asked by the medical secretary to open a discussion on moveable kidney my natural antipathy to take part in controversy disposed me to decline, but I consented on reflecting that the subject, though none of my choosing, is one upon the due and proper comprehension of which it is worth while to spend time and trouble.

I propose in the remarks which I am about to make to state in the first place what I understand by the term "moveable kidney"; secondly, to explain the great discrepancy of opinions as to the frequency of moveable kidney; thirdly, to describe how this mobility may be ascertained to exist; fourthly, to allude very briefly to the symptoms, diagnosis, and effects of moveable kidney; and lastly, to indicate the class of patients benefited by operative treatment.

### WHAT IS TO BE UNDERSTOOD BY MOVEABLE KIDNEY?

Contrary to the inferences to be drawn from some of the many works on the subject, a certain degree of mobility is natural to the kidney. Surgeons accustomed to operate upon this organ frequently witness when the kidney is exposed in the living body that it has a limited movement in a vertical direction, descending with inspiration, and ascending with expiration. Deep inspiration and forced expiration increase these movements. This slight natural descent of the kidney in inspiration cannot be detected by palpation in every individual; in some persons the organ does not descend sufficiently to enable even its lowest pole to be felt on the deepest inspiration. This, however, is not tantamount to saying that every kidney which descends during inspiration, so that the smallest part of it can be felt, is a kidney the means of fixation of which are insufficient—that it is, in fact, a moveable kidney. Many cases in which the lower pole of the kidney, though beyond reach during ordinary respiration, yet comes within range of palpation during a full inspiration and returns on quiet expiration, are uncomplicated by symptoms and the range of their movement is simply natural. But a kidney is deficient in its proper means of fixity and must be considered abnormally moveable under any of the following conditions:—

1. When the whole kidney descends during deep inspiration below the examiner's fingers, on bimanual palpation.

2. When the whole or the greater part of the kidney so descends that it can be felt between the fingers of the two hands.

3. When the lower half of the organ so descends and can be so felt. In the cases in the third group and in some of those in the second group, the organ slips back again in expiration and cannot be retained between the fingers; but in many of the cases in the second group and all of those in the first group, the kidney can be retained between the fingers of the two hands, even after the patient has taken a full expiration. The three groups of moveable kidney, together with the cases above referred to, in which the kidney can be felt no matter to how slight a degree, on the deepest inspiration, are described by Glénard as "moveable kidney of the hypochondrium," or the "new form of moveable kidney" (*rein mobile nouveau*).

4. There is a group of cases in which the kidney is often out of position during natural respiration; and in some extreme cases in this group the organ may even be seen at a glance projecting the abdominal wall, or can be felt at once on simply placing a hand upon the front of the abdomen. This group includes the so-called "floating kidney." This is the group which Glénard calls "the moveable kidney of

the flank and of the iliac fossa," or "the classical moveable kidney." If I understand him correctly, he actually believes that these last were the only cases known to or recognised by the profession prior to 1886, and he claims to have himself discovered all those varieties which he includes under the term, "the new moveable kidney" (*rein mobile nouveau*) by the employment of his own method of bimanual palpation—namely, the "*palpation néphroptique*" as he calls it. But certainly for the last 20 years at least some of us in this country have been employing a method of palpation of the hypochondrium very similar to his own, and have recognised some of the forms of moveable kidney which he calls *new*, and of which he claims to have been the discoverer.

5. Besides the varieties of moveable kidney above enumerated, I have been in the habit of describing another and by no means the least important. These are the cases in which the kidney moves in a "cinder-sifting" manner behind the peritoneum, where the organ slides, so to speak, upon the plane of the posterior parietes, never "dropping" forwards or inwards, and so not properly described by the term "nephroptosis." Moreover, the kidney sometimes rotates more or less round transverse axes, or round a vertical axis. When round the transverse axis or axes one of the poles of the organ (more usually the lower pole) glides inwards, or swings forwards and inwards, and this displacement may be combined with movements in the vertical or lateral direction. In vertical rotation the convex or outer border advances.

### HOW THE DISCREPANCY OF OPINION AS TO FREQUENCY OF MOVEABLE KIDNEY CAN BE EXPLAINED.

Though no one would, I imagine, in the present day repeat the statement formerly made that there is no such thing as a moveable kidney, and that all the instances described had been cases of mistaken diagnosis, still there exist the greatest differences of opinion as to the frequency with which the kidney can be found to move pathologically. All sorts of variations between 1 and 22 per cent. and between 3 and 46 per cent. have been given as the frequency of moveable kidney in the female sex. Glénard, from his experience as physician to the Thermal Hospital at Vichy, met with 537 cases in 4215 patients under his observation, or a proportion of 14 per cent. of all the patients, males and females, examined, and 22 per cent. of all the females. Senator and Guttmann,<sup>1</sup> on the other hand, allow of only from 1 to 3 per cent., and the conclusions drawn from the reports of post-mortem examinations yield in some of the statistical tables less than 1 in 1000. These great discrepancies are capable of being easily explained.

1. Many cases have been overlooked in the dead body, the inspections having been made without any special examination as to the existence or otherwise of undue mobility, only the very striking and extreme cases which could hardly fail to attract notice on abdominal inspection being notified.

2. In the living body many cases are daily overlooked, because the old teaching that the kidney does not come under the influence of respiratory movements has prevented the employment of those methods of examination by palpation which reveal renal mobility, and also because the method of bimanual palpation commonly employed, and which is confined to manipulations below the ribs, generally checks or prevents the respiratory movements of the kidney by keeping or crowding the kidney back into the renal fossa.

3. Those who deny that the kidney can be detected by palpation during normal or even deep respiratory movements, unless the organ is itself abnormally mobile, include in the category of moveable kidney every case in which during deep inspiration the lower extremity only of the kidney comes within reach of the examiner's fingers.

4. Physicians at health resorts and thermal hospitals, the greater number of whose patients are dyspeptic, neurotic, or hysterical, if they systematically employ methods of palpation with the object of detecting the existence or otherwise of abdominal ptoses, undoubtedly find a greater percentage of moveable kidneys in the persons whom they examine, than other practitioners who have fewer patients suffering from such-like maladies and who do not systematically examine for visceroptoses; and this percentage will be made still greater if, like Glénard, these physicians include every case in which they can feel the lower pole of the kidney on deep inspiration as one of moveable kidney or nephroptosis.

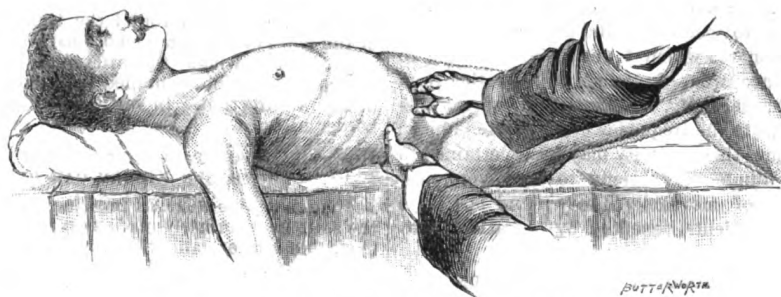
<sup>1</sup> Berliner Klinische Wochenschrift, 1890, No. 15, Discussion.

## HOW TO ASCERTAIN WHETHER THE KIDNEY IS MOVEABLE OR NOT.

Several methods, each effective, have been recommended, and a brief description of two or three of them is desirable here because none of them seem to be as generally known or employed in clinical practice as they ought to be. The method which I have myself used since I first directed my attention to the surgery of the kidney, is the following. The patient should be on his or her back with the shoulders slightly raised by a firm pillow, the spine should rest quite flat upon the sofa or mattress, with the lower limbs very slightly flexed. The patient should be lying close to the right edge of the bed or couch for the examination of the right kidney, and close to the left edge of the bed for the examination of the left kidney. The surgeon then places the fingers of one hand behind and upon, and also just below, the last two ribs, and the fingers of the other hand flat upon the front of the abdomen, just below the costal margin near the outer border of the rectus muscle. (See figure.) He should

hand placed on the umbilical region. By compressing the intervening structure between the fingers of the two hands the kidney as it descends during a deep inspiration is detected by the thumb. Glénard describes the thumb and fingers as assisting in forming a narrow ring, which is completed on its internal side posteriorly by the vertebral column and anteriorly by the fingers of the other hand. He describes the kidney as feeling like a vague indefinite mass as it descends during a deep inspiration. This is the "*palpation néphroleptique*" of Glénard.

Israel's method consists in making the patient lie on the side opposite to that which is to be examined, whilst the surgeon stands on the left side of the couch to examine the right kidney and on the right side of the couch to examine the left kidney; in each case, therefore, his own face is towards the patient's. In examining the right kidney he places the fingers of the left hand upon the right lumbar region and the right hand upon the anterior abdominal wall in such a manner that the tips of the index finger and the middle finger are two fingers'-breadth below the junction of



Showing position of patient and examiner's hands.

be on the same side of the patient as the kidney which he is about to examine, and should be sitting or kneeling at the bedside, so as to have his lowermost forearm as nearly as possible level with the patient's body. When examining the right kidney the left hand should be on the loin and the right in front; when examining the left kidney the right hand should be on the loin and the left on the front of the abdomen. With the hand on the loin the lumbar parietes should be gently but firmly pressed forwards, and sustained so; then the fingers of the hand in front should gently and steadily depress the anterior abdominal walls upwards, backwards, and outwards. The kidney, if enlarged or displaced at all, will now be felt between the two hands, and even if not enlarged the lower pole of the organ will, in some persons, be detected by the fingers during natural respiration. Should this not be the case the patient should be directed to take a long and deep inspiration, and suddenly, but without muscular effort, to allow the air to escape from his lungs; in other words, he should make a long-drawn "sigh." The hand behind still maintains forward pressure on the loin, and the hand in front quickly follows the receding abdominal wall as it becomes relaxed in the expiratory movement. Thus the kidney, which otherwise cannot normally be felt, can often be seized between the fingers of the two hands before it has time to gain its normal position. This method becomes even more efficacious if the patient takes a second and a third similar "sigh" whilst the surgeon maintains and increases the deep pressure made after the first and second. Palpation is sometimes assisted by raising the patient's shoulders so that he assumes the semi-recumbent attitude.

In testing the mobility of the kidney, it is sometimes advantageous to place the patient in the knee-elbow or in the upright position. As a rule, however, I find it best to get the patient to roll over on the opposite side and then to employ bimanual palpation as I have just described. A moveable kidney which persistently declines to become evident will frequently fall at once towards the front of the vertical column, below the costal margin, as soon as the lateral position is assumed and a deep inspiration is taken.

Glénard's method consists in compressing the lower part of the thorax by placing the fingers of one hand on the eleventh rib posteriorly and the thumb of the same hand on the level of and below the extremity of the ninth rib, then crowding back at the same time the abdominal walls with the other

the ninth and tenth costal cartilages. Then, whilst the left hand is supporting the lumbar region, the patient takes a deep inspiration and the kidney is felt at the end of this act.

By my own method the kidney is felt best at the end of the inspiration and at the very beginning of expiration, as soon, that is, as the muscles of the abdominal wall relax. Glénard claims for his method that it is at the beginning and throughout the act of inspiration that he feels the kidney. But a result of making a deep inspiration is to push forwards and to harden the muscles of the anterior abdominal walls, and this has the effect of preventing deep indentation of the parietes with the hand which is in front. It is only in very thin persons, and in those with very flaccid abdominal muscles, or in very extreme cases of nephroptosis, that the kidney can be felt to descend during the whole act of inspiration. By Israel's method the detection of the kidney is made at the end of inspiration.

## THE SYMPTOMS OF MOVEABLE KIDNEY.

These may be considered under the headings of, first, the physical signs discoverable by palpation; and secondly, the subjective symptoms complained of by the patient.

*The physical signs.*—There may be none ascertainable, owing either to the thickset conformation or the obesity of the patient; or, in a slight person, to the elongated shape of the thorax, to the high position of the kidney, or to the movements of the kidney being of the kind which I have described under Group 5 as of the "cinder-sifting" variety. In thickset persons, and those inclined to stoutness, there may be a wide range of movement, and yet the kidney may be quite beyond the reach of palpation. Yet in some of the cases in which there are no physical signs the subjective symptoms are very acute.

In some cases of great mobility in which the kidney can often be detected very easily, there are times when the organ cannot be felt at all. I think it important to observe the rule never to declare that a kidney is not moveable because on a single examination, even though most carefully and systematically made, I cannot feel it move; more especially not to do so if a trustworthy observer has on some previous occasion felt sure of its moving. I have sometimes reduced a floating kidney and nothing that I or the patient could do at the time of the consultation could make it come again into evidence, though the next day it was floating as freely as ever. I once examined a patient in my consulting-room who had

been sent from Switzerland to have an operation for moveable kidney, but I could find no evidence at all by palpation that the organ moved. Two days afterwards I saw the patient in her bed, when the right kidney was found to be so moveable that it could be pushed freely about in almost any direction. There is no doubt of the importance of making more than one examination where moveable kidney is suspected.

When the mobility is considerable the kidney may fall below the margin of the ribs towards the umbilicus or the pelvis when the sitting or erect posture is assumed, or it may roll towards the median line when the body is inclined to the opposite side, and be easily pushed back into the loin when the recumbent position is resumed. In rare cases the patient can at will bring her moveable kidney right out of the hypochondrium into the umbilical, lumbar, or iliac region, by some particular movement or posture which she has discovered by accident. Thus a middle-aged woman with flaccid abdominal walls was able with her right hand to push out the right kidney without any pain, so that it could easily be grasped through the flaccid abdominal walls by the fingers of one hand.

Except in the "cinder-sifting" form, one can make out by palpation, not only if the kidney moves too freely, but also if it rotates. The direction of the long axis of the organ is frequently oblique from above downwards and inwards, the hilum being turned upwards and inwards. More rarely the hilum is turned downwards. When the patient is rolled over on to the sound side the convex border of the kidney may be felt to tilt forwards and to incline inwards towards the front of the spine.

When the kidney is ectopic, occupying the lumbar or iliac region—whether it be only of normal size or enlarged from some disease—it is generally beyond the influence of the diaphragm and does not move with respiratory movements, though it may be freely pushed from place to place.

Percussion over the kidney usually gives a tympanitic or muffled tympanitic note. Epigastric aortic pulsation and congested enlargement of the moveable kidney are very commonly present. During the catamenial period I have known a moveable kidney to assume large proportions and to have been mistaken for a new growth of the kidney.

*The subjective symptoms.*—The kidney may be distinctly moveable without any symptoms whatever being produced and without the patient being at all aware of its undue mobility. The usual symptoms are (1) pain; (2) troubles of digestion; and (3) neurasthenia and hysteria. These three kinds of symptoms may occur either separately or in association. (4) Occasionally, but comparatively rarely, there is some change in the urine or in the functions of the urinary organs. (5) More rarely still, some extreme complication due to compression or dragging, such as intestinal obstruction, jaundice, or great gastric dilatation occurs.

The pain is sometimes described as being merely a constant ache in the back and down the affected side of the abdomen, or as a dragging sensation or weight in the loins and on the affected side of the abdomen, or pain below the shoulders and at the back; or stiffness of the back and cramping pains in the abdomen may be complained of; and some patients experience an occasional uncomfortable sense of something moving in the side, which when very marked has been compared to the movements of a foetus in utero. The pain may disappear on lying down, and become aggravated, if not actually induced, by walking and standing; in other cases it gradually increases, and remains severe even for hours after the recumbent posture is resumed. Neuralgic pains in the course of the great nerve trunks on the affected side may occur. Renal paroxysms of grave severity are in some cases excited. These attacks are quite sudden, and are characterised by intense abdominal pain, hardening of the abdominal wall uniformly or only on the affected side, faintness, giddiness, and symptoms of collapse. During these attacks the kidney can often be felt enlarged from congestion or renal retention of urine, and it is extremely tender. The urine becomes scanty and may contain albumin, casts, or even blood; but again becomes normal when the attack passes off, and then polyuria sometimes follows. These symptoms are probably due to displacement and rotation of the kidney, with torsion of its pedicle, and to the organ becoming intensely swollen and congested. Acute hydronephrosis may be produced and a tumour thus formed, or a very tense hydronephrosis may occur in a kidney too small to form an appreciable tumour. Acute,

paroxysmal, and severely painful cases have long been known and have received the name of "renal incarceration" from their analogy to cases of strangulated hernia. I made mention of them in my work in 1885 and I published instances of the kind many years ago and again in my Cavendish Lecture in 1893. Mr. W. Bruce Clarke, who recorded some cases in 1893, proposed for them the name "acute renal dislocation." This term had also been used by the ancient writers, who looked upon the condition as being more allied to the displacement of the head of a bone than to a strangulated hernia.

Disturbances of the digestive system are in some patients especially prominent. Vomiting, often frequent and severe, sometimes preceded by a burning sensation in the epigastrium, together with symptoms of gastritis or actual dilatation of the stomach, occurs. In the large intestine the most common condition is one of obstinate constipation, which may in some cases amount to temporary obstruction; occasionally there is irregularity of the bowels or diarrhoea. These symptoms are probably produced either by actual pressure or by the dragging of the misplaced kidney upon the intestine. Folds of peritoneum have been observed passing from the kidney to the duodenum in such a way that when they are pulled upon the lumen of the duodenum is narrowed or even occluded, as in a case recorded by Franks. Macalister, who has also observed similar folds, believes that they are by no means uncommon and that they furnish a natural and adequate explanation of the gastric disturbances which occur in these cases. The gastric symptoms are liable to acute exacerbations or "crises," as first described by Dietl in 1864. They consist of violent attacks of colic attended by nausea and vomiting, and these may be accompanied by abdominal distension and tenderness, and sometimes by a rise of temperature and signs of collapse. Transient attacks of jaundice are said not to be infrequent, but I have never personally witnessed them; they are probably dependent in some way upon the dragging of folds of peritoneum on the duodenum as above described; for the idea that there is ever direct pressure of the kidney upon the bile-passages is not borne out by anatomical investigation, except possibly in such a case as Lindner's, in which a floating kidney with stones in the pelvis pushed against the gall-bladder and gave the appearance of a tumour of the gall-bladder, but in that case there was no jaundice. A right floating kidney, if carefully drawn forwards or downwards, causes traction on the duodenum at a point from two to three centimetres below the entrance of the biliary duct; and though it does not occlude the lumen, it may interfere with the contents of the bowel sufficiently to impair digestion and to cause biliary obstruction. Symptoms of chronic appendicitis are considered by Edebohl to be a very frequent complication of moveable kidney on the right side, and he explains this on the supposition that the misplaced organ produces an indirect pressure upon the superior mesenteric vessels, which become compressed between the pancreas and the bodies of the vertebrae, and thus a chronic congestion of the appendix and colon is produced which is sufficient in the case of the appendix to give rise to definite symptoms.

As to neurasthenia and hysteria there is no doubt that moveable kidney, like many other causes of physical suffering, slight as well as severe, may lead to the development of hysteria in a female who had previously shown no signs of any such neuropathic tendency, and this may be completely cured by nephropexy. There are other individuals who have shown signs of hysteria before the kidney has been known to be moveable and whose condition is aggravated by the knowledge. But hysteria and neurosis are not by any means invariable accompaniments of moveable kidney. Some of the most painful cases develop after a slight injury, and still many more, that occur without any assignable cause, are met with in healthy women, physically and mentally active, who are completely invalidated against their will by the pain and digestive troubles caused by the moveable kidney. Though the patients have perseveringly, but in vain, tried belts, diet, and recumbency for a long period they obtain the most complete and gratifying results from fixation by operation. It undoubtedly happens sometimes that a person is credited with being neurotic and her symptoms are attributed to hysteria because, owing to an insufficient investigation of the case, a moveable kidney has been overlooked; but the opposite error of overlooking the hysterical element and attributing all importance to the nephropexy is also made.

To do this is to court failure, for we are regarding as a cause what may be only a coincidence.

As regards changes in the urine and the urinary functions: in most uncomplicated cases the urine is healthy, and is as a rule voided in the normal way; in many cases there is some albuminuria from time to time, but if the urine is habitually albuminous the albumin will be due to some pre-existing or co-existing disease. Still there are cases, not so very few, in which urinary symptoms are complained of. Kuttner speaks of frequent straining in order to urinate, and of slight polyuria. Apolant draws special attention, in the case of a woman, aged 50 years, with very serious abdominal disturbance due to a floating kidney, to a symptom which had been but little regarded, if not entirely overlooked—namely, excessive polyuria. I have operated upon several cases of moveable kidney in which slight pyuria or hæmaturia and frequent ardent desire to micturate were symptoms.

The leading question about which the most opposite opinions are entertained is as to the influence exercised by a mobile, an ectopic, or prolapsed kidney in producing any of the gastro-intestinal and nervous symptoms ascribed to it. It is said by Glénard and those who adopt his views that nephroptosis is merely an accidental or casual incident in the progress of enteroptosis; that in this progress it is the ptosis of the intestines which is the essential element; that ptosis of the kidney, if the organ is otherwise normal, occurs only in nervous dyspeptics and persons affected with neuropathies or the affections grouped under the terms "biliary lithiasis" or "gastric crises," and that the fundamental symptoms in these patients are digestive, that the local subjective symptoms (the sensation of a ball in the side, the movements, the dragging from the loin, &c.) and the painful gastric and abdominal crises, are met with equally in persons whose kidneys are not mobile or displaced; and that these symptoms are of cæcal, colic, duodenal, gastric, or hepatic origin. Lastly, they aver that if a moveable kidney of itself provokes any symptoms whatever it is because the kidney is diseased and that then the symptoms differ from those commonly but erroneously attributed to the mobility of the organ. Against these views it is held that nephroptosis is not unconditionally associated with splanchnoptosis; that the great majority of cases of nephroptosis are independent of enteroptosis; that the patients who come under the observation of the surgeon on account of floating or moveable kidney are, as a rule, free from undue mobility or ptosis of any other abdominal viscus; that the most severe renal and abdominal crises are cured by nephropexy; that women with lax abdominal walls, an evident degree of splanchnoptosis, and a freely moveable kidney may be quite cured of all renal and intestinal symptoms by the operation; and that the classical gastro-intestinal and nervous symptoms are sometimes caused by a kidney moving in a "cinder-sifting" manner, the mobility of which cannot be detected by palpation. Experience has taught that there are cases of nephroptosis, others of enteroptosis or splanchnoptosis, and others again in which nephroptosis and splanchnoptosis co-exist; that in many cases very severe symptoms are caused by the mobility and prolapse of the kidney; and that the treatment suitable for enteroptosis is not sufficient in many cases to relieve or even to influence the symptoms due to moveable kidney. I am as sure of this as of any fact in surgery—namely, that the most complete and lasting relief from renal and abdominal crises has followed nephropexy; and that patients after the operation have improved in general health and spirits, have confessed themselves better than they had been for many years, have put on flesh, and have been pronounced by their relatives and friends as quite altered beings, who, however, had previously and in vain tried all kinds of treatment both at home and at health resorts.

#### THE DIAGNOSIS OF MOVEABLE KIDNEY.

In no case are we justified in positively concluding that a patient's sufferings are due to moveable kidney unless we can actually feel the kidney to be unduly moveable. In cases in which one-sided pain, some amount of gastro-intestinal disorder, and occasional crises with possibly a little pus or blood in the urine, occur, though without any tangible sign of undue mobility of the kidney, we may suspect a moveable kidney, but the diagnosis cannot be made absolute until the organ is explored. We must bear in mind that the "cinder-sifting" renal movements cause similar symptoms to those of nephroptosis generally, also that they cause

symptoms closely resembling those of stone in the kidney or ureter as regards pain and renal crises, but that they will entirely escape detection if we lean too implicitly upon the results of the Roentgen rays, and if when we fail to find evidence of a stone we decide not to explore the kidney. The same is true also of abnormalities of the renal pelvis and ureter, of early tuberculosis, and of small abscesses of the kidney, each of which, though remediable by operation, cannot be detected by the x rays. On the other hand, even when all the typical symptoms are complained of, we must not decide that the moveable kidney is the cause of them until we have made a careful investigation of the other organs of the abdomen and pelvis, both as to their anatomical character and relations and as to the way in which their functions are discharged. By means of careful and systematic palpation the diagnosis between a "moveable" or "floating" kidney on the one hand, and other moveable abdominal tumours on the other hand is usually sufficiently easy, although there are several instances of mistakes having been made by most capable clinicians. A "floating" kidney has been sometimes diagnosed as something else, but what happens far more frequently is that some other tumour, not renal, is diagnosed as a moveable kidney. Probably the commonest error is to mistake an enlarged gall-bladder for a "floating" kidney. These two conditions often co-exist. A moveable right lobe of the liver has been taken for a floating kidney, as have also a moveable spleen, cancer of the cæcum, cancer of the stomach, a tongue-shaped lobe of the liver, an intra-peritoneal abscess, an ovarian cyst or dermoid of the ovary, a uterine myoma, and tumours of the omentum or mesentery.

#### PATHOLOGICAL EFFECTS OF MOVEABLE KIDNEY.

The most common effect of moveable kidney is the general impairment of the health of the patient. Languor, debility, loss of flesh, vertigo, constipation, hypochondriasis, great restlessness, great anxiety, perversions of sensations or of the special senses, hysteria, and many other neurotic conditions are the ordinary consequences.

The most frequent effect upon the kidney is hydronephrosis, either intermittent or persistent. When distended a hydronephrotic organ may give rise to an abdominal tumour, but in other cases the kidney, though converted more or less into a mere sac, is of small size and cannot be detected by palpation even when tightly distended.

#### TREATMENT.

In many cases of moveable kidney the symptoms, if any exist, are so slight that no treatment is requisite. When symptoms occur in spite of the avoidance of active exercises, when pain, aching, and a wearying sense of dragging weight or of great lassitude are caused by ordinary standing and walking, or when pain occurs even during absolute quietude and total avoidance of every form of physical exertion, nephropexy is called for.

Various forms of trusses and bandages have been devised and have in some cases given some partial relief. But though some patients are rendered more or less comfortable they are not really cured by these appliances. Moreover, the pads and bandages are not free from the risk of doing more harm than good in cases belonging to Groups 1, 2, and 4 unless care is taken not to apply them before the kidney is replaced in its natural position, or if the kidney descends after the pad has been duly adjusted. Very much depends upon the care with which the belt or bandage is applied. I have known much comfort and an entire freedom from crises to be derived from their use during the time that the patient was under supervision and was not allowed to rise until the kidney had been replaced and the belt adjusted, but as soon as the patient was left to put on the bandage for herself all her troubles returned. One such patient suffered some of the most severe renal crises that I have ever witnessed and had often to be kept under chloroform for three or four hours at a time. She was quite cured by nephropexy 12 years ago, and has led a very active life ever since. In fact, in cases of simple or uncomplicated nephroptosis belts and pads are practically useless, and some of the frightful things which have been produced under the name of "kidney pads" ought to be relegated to a chamber for the collection of instruments of torture. It is chiefly in the rare cases in which moveable kidney is associated with enteroptosis that belts are of any real use, and in these cases the best form of belt is one shaped so as to fit well above the hypogastrium and without any pad, to support

the abdomen generally. Not a few women find a belt so irksome and uncomfortable that they positively refuse to continue wearing it, especially when they realise that they can never be cured by the treatment, that though the belt may keep the kidney in place by giving a general support to the abdomen, it cannot end in fixing the kidney in its proper place, and that to give continuing comfort it must be worn for life.

My experience leads me to attach next to no value to rest in the recumbent position. In several instances in which I have operated with most gratifying results the patients have kept the recumbent position for six or nine months before the operation, without the least improvement from it, all their symptoms returning immediately after getting about again.

An operation should certainly be advised when the symptoms are severe and are not relieved by rest, mechanical appliances, and appropriate medicinal and dietetic treatment; when mechanical appliances cannot be borne or seem to increase rather than to mitigate the symptoms; and when the patient cannot take gentle exercise or even sit erect for long without suffering. In cases in which in spite of palliative treatment paroxysms of nephritic colic, fainting, sickness, vomiting, and pain radiating far and wide in the course of the branches of the lumbar plexus of nerves occur frequently, the only possibility of relief is surgical operation.

The only operation justifiable is nephropexy. Nephrectomy is no longer admissible for moveable kidney. Nephropexy has proved to be both safe and successful and it has entirely superseded nephrectomy. Collected statistics show the average mortality of nephropexy to be but slightly over 1 per cent., and my own tables, giving all the operations of this nature which I had performed up to March, 1898, show 57 cases without a single death. Up to the present time in considerably over 100 operations I have had only one death and that was from cardiac thrombosis in a stout female whose kidney was incised and explored before being fixed. Nephropexy has not the same value as a means of relieving each of the three leading classes of subjective symptoms—viz.: (1) pain; (2) gastro-intestinal disturbances; and (3) nervous phenomena. It has cured 90 per cent. of the cases in which pain was the chief symptom. If pain continued after the operation it was because either the diagnosis was at fault or the kidney was otherwise deranged. In the gastro-intestinal group of symptoms, the operation has been less successful than when performed mainly on account of pain. Flatulent dyspepsia and constipation are the two symptoms of this group which I have most frequently seen to persist; but there have been very few patients amongst those I have operated upon, and whose subsequent histories I have been enabled to follow, who have not been improved even in these respects. On the nervous phenomena the effect of the operation is far less satisfactory. Operations upon hysterical patients for the relief of subjective symptoms, even when they are based upon a real ascertained physical basis, are not only apt to fail in giving relief but may arouse ideas which end in fresh complaints or in an aggravation of the original ones. If, however, the hysteria or neurasthenia has been secondary to the moveable kidney we should not hesitate because of the uncertainty of the therapeutic effect to operate, even though the nervous symptoms are very pronounced. If palliative means have been found insufficient we should perform nephropexy, though we should warn the friends, if not the patient herself, of the speculative nature of the result.

There are several ways of performing nephropexy and many surgeons prefer some one to all the others. Practice has taught me that it is best not to confine oneself to one form of operation. There are at least three which have special advantages in different kinds of cases. I choose one method in one case and another method in another. The methods which I employ are, first, Vulliet's operation; secondly, that which I call my own; and thirdly, a modification of the method recommended by Tuffier.

The conclusions as to the treatment of moveable and floating kidney by nephropexy at which I have arrived are the following. I would, however, preface them by repeating what I have said above respecting belts and bandages—namely, that they have no efficacy in nephroptosis uncomplicated with enteroptosis and that when employed in cases of moveable kidney they increase pain and may otherwise do harm if not carefully and properly applied.

1. When moveable kidney is associated with enteroptosis,

no operation should be performed on the kidney unless it is evident that the more serious symptoms are due to the mobile kidney alone, and not until after the trial of a well-fitting abdominal support and the careful dietetic and medicinal treatment of the gastric and intestinal disorders. Should these means fail and the kidney evidently be most at fault, nephropexy, followed by the wearing of an abdominal belt, should be tried.

2. When a moveable kidney is complicated by a moveable liver, or when both kidneys move, the same rule should be followed as in general enteroptosis; in the case of both kidneys moving (when both organs have been giving trouble) they should be fixed one after the other at an interval of a week, so that convalescence from both operations may be taking place simultaneously. I have in several instances thus operated upon both organs with the most satisfactory results.

3. When the moveable kidney occurs in a hysterical or neurasthenic patient, all palliative means should be tried before resorting to an operation, and the patient's friends should be informed of the uncertainty of the result from operation. The statistics show that a cure may be hoped for by nephropexy in about half of these cases.

4. For uncomplicated moveable or floating kidney, in which the principal symptoms are pain and gastro-intestinal troubles, the operation may be confidently advised and carried out without any previous trial of belts or of rest.

5. When renal crises are a feature of the case nephropexy ought to be strongly urged because of the impossibility of keeping the kidney in its proper place by a belt, and because of the constant risk of hydronephrosis and recurring pain, even if the renal crises can be kept under control.

6. When a moveable kidney gives rise to no inconvenience an operation ought not to be thought of and a belt need not be worn.

## A Clinical Lecture

ON

### THE SYMPTOMS AND TREATMENT OF PERIGASTRIC ADHESIONS.

*Delivered at Guy's Hospital on June 12th, 1901,*

By W. HALE WHITE, M.D. LOND.,

PHYSICIAN TO, AND LECTURER ON MEDICINE AT, GUY'S HOSPITAL.

GENTLEMEN,—The great improvements in abdominal surgery which have been effected during the last 20 or 30 years have rendered it necessary that we should strive more than ever to be precise in diagnosis. 20 or 30 years ago it sometimes hardly mattered what form of abdominal disease you were dealing with, for you could in many cases do little else than give opium, restrict the food, and keep the patient quiet. Now so many abdominal diseases which do not yield to other treatment can be successfully dealt with surgically that it has become imperative for you to try to decide what may be the precise cause of the patient's trouble in order that you may determine whether surgical interference is justifiable. You must set your minds firmly against the "Let's look and see" view which I notice some of you are inclined to adopt in talking of opening the abdomen. From the patient's standpoint this view is obviously highly undesirable, for he naturally will resent having his abdomen opened unnecessarily; from your standpoint it is quite as undesirable, for every case, especially if obscure, is a severe mental training for you, and you are so much the poorer physicians if, instead of trying hard to make out what is the matter, you give up the problem before you have attempted to solve it. Remember, it is only justifiable to do an exploratory laparotomy if, all other methods having failed, you are unable to arrive at a diagnosis. These preliminary remarks are, I think, necessary, for the subject of to-day's lecture is so little understood that few books even mention it.

Perigastric adhesions may be due to many causes; for instance, they may be met with in tuberculous peritonitis or in malignant disease of any organ in the upper part of the abdomen, or as a sequel to gall-stones. We have had an instance of this last quite recently in Miriam Ward, the

patient being a woman over 60 years of age, who was sent to me by Dr. E. A. Starling. In these cases local peritonitis around the gall-bladder leads to the formation of adhesions between it and the first part of the duodenum, or even the pylorus. These by compression and traction cause abdominal pain and gastric dilatation, and often a thickening can be felt through the abdominal wall. You should always suspect that these adhesions are present when an elderly woman who gives a history of gall-stones shows these symptoms, and, as a rule, the diagnosis has to be made between such adhesions and carcinoma of the pylorus.

To-day I propose to confine myself to perigastric adhesions due to gastric ulcer, as it is only for these and those in connexion with the gall-bladder that you can hope to do much save in very rare instances, and I can fortunately bring before you several cases of adhesions due to gastric ulcer. They are by no means uncommon, for of the gastric ulcers found in the post-mortem room about 45 per cent. have formed adhesions to some neighbouring organs. The following table, taken from Fenwick, shows the organ to which the stomach was adherent in 123 cases in which a gastric ulcer formed adhesions to neighbouring organs.

Organ.	Number of cases.	Per cent.
Pancreas (alone) ... ..	49	40.0
Liver (alone) ... ..	33	26.8
Pancreas and liver ... ..	10	8.1
Colon ... ..	7	5.7
Liver and colon ... ..	4	3.2
Spleen ... ..	2	1.6
Mesentery ... ..	3	2.4
Three or more organs ... ..	15	12.2
—	123	100.0

On analysing 142 cases of pancreatic disease I found four in which this organ was adherent to the stomach as a result of the old gastric ulcer. Probably this under-represents the number, for slight adhesions might not sufficiently arrest the attention of the morbid anatomist for him to make a note of their presence. It is not surprising that such a large number of cases of gastric ulcer form perigastric adhesions, for there is often a little local peritonitis over a gastric ulcer. Nor is the adhesion to a neighbouring organ altogether harmful, for it often saves the patient from the danger of perforation. During nine months I have come across eight cases in which the symptoms appeared to warrant a diagnosis of perigastric adhesions in connexion with a gastric ulcer. In three operation was refused and the patients have drifted out of observation. In the remaining five, two of whom you have recently seen in the ward, the abdomen was opened and the diagnosis was confirmed; and I will now give you briefly a summary of what I would suggest these cases show us to be the symptoms that should lead to a diagnosis of perigastric adhesions due to gastric ulcer.

With all our patients very severe pain was the prominent symptom. Sometimes it was excruciating, and many of you had an opportunity of seeing the patient in Case 3 roll about in bed doubled up in the agony of her pain. In two of our cases the patients were fast becoming habituated to the use of morphia. The pain is, I think, usually situated at the upper part of the abdomen and probably it is an important factor in diagnosis that it often lasts for years. The patient in Case 2 said that for several years she had had paroxysmal pain. In Case 3 the patient had had pain for five years. In Case 4 the pain had lasted for 13 years, the patient being sometimes free for a few weeks but never longer, and in the other two cases although the statements are not so definite the pain had lasted a long while. Most patients suffering from dyspepsia or from uncomplicated gastric ulcer, it is true, often relapse, but in the interval between their separate attacks they are free from pain. But if adhesions are going to cause pain it is only natural that the pain should be more or less constant, and I take it that the constancy and very long duration not only of pain but also of any other symptoms which may be caused by perigastric adhesions are of the greatest value in the diagnosis of them. The other condition most likely to cause such constant symptoms is carcinoma. The diagnosis

between perigastric adhesions due to ulcer and those due to gastric carcinoma may be difficult, but there will usually be some guide; it must be remembered that the perigastric adhesions often lead to no loss of flesh and that at any rate the wasting is less than with carcinoma, that they rarely lead to death, that they occur in younger people, and that in carcinoma hydrochloric acid is usually absent. It is noteworthy that our patients were usually sure that the taking of a meal did not increase the pain, nor is this surprising, for the pain is no doubt due to the dragging of the adhesion on the stomach, and therefore it may well be less when the stomach is dilated, for then the gastric attachment of the adhesion will be brought nearer to its other end. But the pain is often paroxysmal, even though it is constant; this, no doubt, is due to peristalsis dragging on the adhesions, and it is interesting to note that in Case 3, in which the adhesion passed from the stomach to the intestine, the paroxysms were particularly frequent and particularly severe, probably because peristaltic contractions could drag on either end. Before leaving the subject of pain I should like to remind you that it is very likely that some of the cases of abdominal pain commonly ascribed to "gastralgia," "gastrodynia," "hysteria," or "hypochondriasis" are really due to intra-abdominal adhesions.

In some of our cases there was local tenderness over, or nearly over, the site of the adhesions and also it was sometimes possible to obtain by palpation a distinct feeling as if there were some matting of organs. No doubt the adhesions are frequently associated with a dilated stomach owing to contraction of an ulcer near the pylorus or owing to kinking of the stomach by the adhesions, but I think if the ulcer is healed and there is no constriction, so that the patient is suffering solely from adhesions, it is probable that there will be no vomiting, that the tongue will be clean, and there will be but few symptoms of indigestion, indeed, that there will be little else to notice save the severe pain. On the other hand, there may be, as in our first case, the symptoms of dilatation of the stomach, for, as already remarked, the adhesions themselves may cause the dilatation. Also there may be symptoms of gastric ulcer such as vomiting and hæmatemesis associated with the pain due to the adhesions and possibly the dragging of the adhesions may keep the ulcer open. When severe gastric dilatation is due to an ulcer surgical interference is clearly necessary whether the dilatation be due to adhesions or cicatrization of the ulcer and hence when dilatation is clearly present the diagnosis of perigastric adhesions is not of very great importance, but it is very important to distinguish between a case of ulcer without adhesions and a case of adhesions in connexion with a healed or quiescent ulcer, for in the former case an operation is probably unnecessary and may do harm, while in the latter if any relief is to be obtained it can only be reached by an operation. It is likely that future experience will show that the distinction is this—that in cases in which all the symptoms are due solely to the adhesions the pain is very long-lasting and constant, that it occurs when the stomach is empty more than when it is full, and that it is not increased or started by food. Further, vomiting and hæmatemesis are absent and the digestion remains good; therefore the patient is not wasted and has a clean tongue. Probably different adhesions trouble the patient to a different degree. If a band passes from the stomach to the colon a contraction of either will cause extreme pain, but if a large area of stomach is attached to some fixed organ, as the pancreas, it is hardly likely that pain will be so severe; but, on the other hand, it is quite possible that when, as is often the case, a large area of stomach is ulcerated away and the floor of the ulcer is formed by the pancreas the symptoms of dyspepsia may be marked. I need hardly add that if the previous history points to there having been a gastric ulcer this will greatly aid the diagnosis of gastric adhesions. We had this help in most of our cases.

Let us now pass on to the treatment. It is clear that drugs cannot separate adhesions and that therefore the only hope of relief is for the surgeon to divide them. In the five cases which form the subject of this lecture it was sometimes easy to tear them with the finger, and once there was such a large vessel in an adhesion that it required ligation before the adhesion could be divided. As we are only on the threshold of our knowledge we do not yet know how likely it is that these adhesions will re-form, but as this is possible it would probably be better, when feasible, to remove them rather than simply to divide them. You will, of course,

remember that you should not separate adhesions to the pancreas or liver when either of these organs forms the floor of the ulcer, but we have just seen that probably these are just the cases in which the adhesions are least likely to cause pain. Always bear in mind that there may be two ulcers and therefore two sets of adhesions in the same case. If the patient is suffering from vomiting and other symptoms due to dilatation or to an ulcer as well as from symptoms of adhesions, do not spend time trying the effect of rectal feeding if you have made up your mind that an operation will ultimately be necessary, for patients nearly always lose ground during rectal feeding and are therefore less likely to be good subjects for what may be a long and tedious operation.

Turning to the results of treatment, the patient in Case 2 it will be seen died from sudden cardiac failure and therefore it was quite impossible to say whether the fact that the adhesions were divided would have relieved her pain. Case 5 was a case in which two extensive ulcers with numerous adhesions were present. That the patient must have died in any case was evident to all who watched her. Our regret was that we did not have the opportunity of operating many months before she came into the hospital. With regard to the other cases the results are very interesting. In Case 1 the cure has been complete, the change from a skeleton of a man unfit for anything to one able to enjoy life and to earn his living is most striking, and it will be observed that the improvement in him is maintained. It is more important to study the women. The patient in Case 3 was during her stay in the hospital after the operation apparently cured. She went to her village home and the pain returned. As the adhesions were completely divided I suspected that this return of symptoms was due to her having again got back to the sympathetic audience of a country village, so I had her brought to London and watched her for three weeks. When in the hospital before the operation she writhed in pain; now, as we cheered her up and advised her not to think of it, she had none worth mentioning. During the whole of the three weeks she slept well without morphine, which was formerly necessary, she ate ordinary food, and she busied herself about the ward. No one seeing her could have the slightest doubt as to the benefit of the operation. In Case 4 the patient, after the operation, while in the hospital gained 11 pounds in weight and was better in every way. When she returned to her native village her pain and sickness came back, so we had her brought to Guy's and watched her. She was obviously improved in health—in fact, she appeared a very healthy woman—although she was sometimes sick, but I strongly suspect that this sickness was no longer the result of disease of her stomach. Now, in the first place, it must be remembered that after dividing adhesions or enlarging a constricted pylorus only the results of the ulcer are dealt with, any ulceration present remains and may cause symptoms; but apart altogether from this there is very little doubt that the nervous system of women who have for many years been suffering from severe abdominal pain—especially if, as in both of these women, much morphine has been given—becomes undermined and so, like the woman with a floating kidney, while much of the suffering is due to the actual intra-abdominal dragging, there is superadded suffering which for want of a better word we call "functional," and this is not permanently relieved by the fixation of the kidney; and in this connexion it is interesting to recall the fact I have already mentioned that these cases of adhesions are often called "hypochondriasis" or "hysteria." It is very important that you should remember this, for then you will try to diagnose these cases early and free the adhesions before they lead to nervous deterioration. On the other hand, if they have existed long you will warn the patient's friends that even after they are freed some symptoms may remain which can only be dealt with by helping the patient to help herself. I know that it has been suggested that this return of symptoms may be due to the re-formation of the adhesions, but Case 3 shows that this certainly is not always so. The symptoms returned suddenly and severely when the patient got among her own friends, ceasing again directly she got back to the hospital; and also in another case in which I have been told of their return when the patient got home their reappearance was so soon after the operation as to make it very doubtful if it was due to fresh adhesions. We will now pass on to consider our individual cases and see how they illustrate our subject.

CASE 1.—The patient was a man, aged 30 years. In 1894 and the early part of 1897 he was treated for dyspepsia by bismuth mixture and restricted diet. In December, 1897, he was taken ill with sickness, slight hæmatemesis, and severe abdominal pain; for this he kept his bed some time and was altogether under medical treatment for four months. During the next 12 months he was better; in the spring of 1899 he lost ground, but not seriously. During the winter of 1899-1900 he suffered continuously from abdominal pain; early in February, 1900, this was very severe and was accompanied by sickness and hæmatemesis. The pain got a little better but the sickness continued; he became very anæmic and lost 20 pounds in weight in six weeks. I saw him with Dr. Youatt on May 15th, 1900. He was then extremely wasted, looked very ill, was so weak that he was quite unable to follow his occupation, and was in much pain. He had all the signs of a dilated stomach, which we found would contain three quarts. It appeared to Dr. Youatt and myself that this was clearly a case of dilatation of the stomach secondary to an ulcer at the pylorus, and as we could not see any way of relieving the patient except by surgical interference Mr. W. Arbuthnot Lane was asked to see him. He agreed with the diagnosis and therefore opened the abdomen. We found that just to the gastric side of the pylorus the stomach was attached by adhesions to the structures behind it and to the liver. It was evident from the aspect of the parts that these adhesions were connected with gastric ulcer. They kinked the stomach so that they obstructed the flow through the pylorus. The adhesions were divided without difficulty, and at once the kinking disappeared. The abdominal wound was then sewn up, the stomach not having been opened. The patient made an uninterrupted recovery. Exactly a year after the operation his brother, a medical man, kindly visited him for me and then came to report progress. He said that after the operation the patient had gained ground considerably and had returned to his work for which he found himself quite equal; he was married early in September, 1900. On Dec. 7th, 1900, his brother saw him and he was in good condition and vigorous, saying that he had enjoyed life during the previous six months more than he had done for six years. On May 15th, 1901, his brother again saw him and found that he had not left off his work any day since his marriage. He seemed perfectly well and had put on much flesh, he had a good appetite, took ordinary food, and ate heartily. He did not suffer any pain. He was, in fact, quite a different being from the wasted sufferer who was too weak to work. The only possible drawback to the above account was that in the winter he did have a little pain and slight sickness, but this was easily controlled by a bismuth mixture, and at the time was attributed to indiscretion in diet.

This case illustrates that adhesions may cause dilatation of the stomach. Probably at the time of operation the ulcer was still open, for hæmorrhage had occurred shortly before. As this ceased after operation it suggests that the adhesions kept the ulcer open. It is perhaps difficult to dissociate the symptoms of ulcer from those due to adhesions, but the case illustrates admirably the benefit of surgical interference.

CASE 2.—The patient, a woman, aged 45 years, was seen with Mr. J. Curling Bates of Norwood. She had never had any illness except that for which she now sought advice. She said that for several years she had had paroxysmal pain in the back and abdomen which had been much worse during the past three months. The pain had kept her awake at night and had had no relation to food except that eating was sometimes a relief. There had been occasional bilious vomiting during the attacks. The patient had often been constipated, but had never brought up or passed any blood. No remedy had benefited her. I first saw her early in June, 1900, and on talking over the case with Mr. Bates decided that perhaps the pain was due to adhesions in connexion with an old gastric ulcer. We pointed out to her that as everything we knew of in the way of drugs had been tried for years to relieve her and that the pain was steadily getting worse, we thought that her best course would be to submit to an exploratory operation to discover whether our diagnosis was correct, for if it was we thought that much might be done to relieve her. Our view of the case was confirmed, we thought, by the fact that there was great tenderness half-way between the umbilicus and ensiform cartilage and that this tenderness was much increased by pressure. The heart sounds were quite normal, but the apex beat could neither be seen nor

felt. On June 26th Mr. Lane opened the abdomen and found several adhesions between the liver and stomach causing kinking and obstruction at the pyloric end of the stomach. These were divided and the kinking and obstruction were relieved. The patient took the anæsthetic badly and after the operation was very restless. During the next few days she continued very restless and morphia was given. On the third day after the operation while lying in bed she suddenly became collapsed and died in less than a quarter of an hour. At the post-mortem examination we found a healed ulcer of the stomach near the pylorus which was evidently the cause of the adhesions that were divided at the operation. There were also other adhesions at the back of the stomach in connexion with the ulcer which had not been seen at the operation. The cause of death was apparently due to the state of the heart; it presented the most extreme instance of fatty degeneration that I have ever seen.

This case illustrates the facts that the pain bears no relation to food, that it lasts for years, and that it may be paroxysmal and may be associated with tenderness. It also shows admirably how the symptoms suggestive of adhesions may occur even if there has been no history pointing to ulcer. The kinking caused by the adhesions was not sufficient to cause dilatation. The patient's death had, as far as we could tell, nothing to do with the operation. We also learn the great importance of bearing in mind the possibility of there being two ulcers.

CASE 3.—The patient, a married woman, aged 28 years, was sent to me by Mr. R. L. Routh of Sibford-Ferris. She was admitted into Guy's Hospital on March 4th, 1901. The following is an abstract of the notes taken by Mr. L. S. H. Glanville. The patient came in for pain in the epigastric region. Her present illness began five years ago with pain there. This had gradually increased until the present time and it had often been so severe that she had had to keep to her bed. It occurred at all times with or without food. She retched a good deal but was not actually sick unless she made herself vomit by putting her finger in her throat. This she sometimes did to try to relieve the pain. The vomit was sometimes streaked with blood. She was very constipated and always had to take aperients. Her appetite was bad; she slept badly; she had lost weight of late, but then she had taken very little food owing to the severity of the pain. She had often had a morphine injection. She had been in two or three hospitals but had not derived any benefit from treatment. On admission the patient had the look of a person who was in constant pain. She was rather thin but otherwise she had a healthy appearance. Her breath was a little foul, her teeth were good, and her tongue was healthy. The only abnormality to be made out on examining her was that she was very tender in the epigastric region between the middle line and the outer part of the upper end of the right rectus. This tenderness corresponded with the position of the pain after food and in this region careful palpation gave the impression that there was something abnormal in the abdomen. The impression given was such as might be expected from peritoneal adhesions. The patient was kept under observation for 10 days. The above abdominal symptoms persisted and the pain was agonising; the patient often rolled about and cried with the agony of it; it never gave us the impression that it was hysterical. The only thing that controlled it was frequent morphine injections. A diagnosis was made of the adhesions in connexion with an old ulcer of the stomach, and, accordingly, on March 16th, Mr. Lane opened the abdomen in the middle line. There was found to be a band about half an inch wide stretching from a point on the lower curvature of the stomach about half an inch from the pylorus to the intestines lower down in the abdomen. This band was about two inches long. It could be seen that its gastric end was inserted into a gastric ulcer of about the size of a three-penny-piece, something like the insertion of the stalk of a flower into the flower, and it was clear from the position of things that any movement of the intestines would drag on it very considerably. Mr. Lane divided it and the wound was sewn up, the whole operation taking but a short time. After the operation she never had any more pain and the only morphine injection that was given was one a few hours after the operation. She made an uninterrupted recovery, leaving the hospital on April 10th. She came to show herself a week later and appeared to be in excellent health, having had no pain since the operation. In June we

were told that she had pain after having gone to live at home, so we took her into the hospital to watch her for three weeks, but during the whole of that time any pain she may have had must have been slight, for she slept well, was up and about, and expressed herself much better for a little bismuth.

This case illustrates admirably the severity, long duration, and locality of the pain. In association with its severity it is interesting to note that the adhesion was attached to both the stomach and the intestine, so that contraction of the latter might cause pain. Symptoms of gastric ulcer proper were absent. There were local tenderness and a feeling of resistance over the adhesion. The value of operation is admirably illustrated and also the fact that even after a successful operation functional symptoms may return under appropriate surroundings.

CASE 4.—A married woman, aged 30 years, was sent to me by Mr. G. Pender Smith of Wivenhoe. She was admitted into Guy's Hospital on April 2nd, 1901, and she told us that her illness began 13 years ago with pain in the stomach, which was at first felt only after meals, but gradually grew worse and constant. Some days after the first onset of the pain she had a severe attack of vomiting and brought up a large quantity of bright red blood. After this she remained in bed for six weeks, subsisting mainly on nutrient enemata, as it was but rarely that she could keep anything in her stomach. Since that time she had lived almost entirely on liquid diet. Sometimes she had been free from pain and vomiting for a few weeks, but never longer, and the vomiting, as a rule, had been accompanied by some hæmatemesis. During the last few months the pain had been more severe and she thought that she had been losing weight. Morphine injections were the only thing that had relieved the pain. On admission she was thin and wasted. There were no signs of dilated stomach and the only thing that could be discovered on examination was that the abdomen was both tender and hyperæsthetic over an area about an inch square situated a little to the right of the middle line and about an inch and a half below the costal margin. She was kept under observation in the hospital for three weeks, and by means of careful feeding she gained three pounds in weight, but the pain, sickness, and occasional hæmatemesis did not improve in the slightest. Accordingly, after consultation with Mr. Lane, the abdomen was opened on April 29th. A few slight adhesions were seen binding the pylorus to the liver. These were divided. The pylorus was obviously much constricted. It was therefore divided longitudinally and sewn up transversely. After the operation the pain, vomiting, and hæmatemesis all ceased and the patient got up on May 15th. By May 20th she was taking ordinary food and had gained 11 pounds in weight since the operation. She felt quite well and looked much better than on admission. After she got home we heard that the pain and sickness had returned severely, so we had her back to the hospital and found that she was occasionally a little sick and sometimes had pain, but she was very much better than before the operation; she looked well, was up and about the ward, took ordinary food, and never had a morphine injection.

This case is extremely interesting, for although the well-marked constriction at the pylorus was not sufficient to cause dilatation of the stomach, yet apparently it was sufficient to cause severe symptoms lasting for many years. The relief following operation was very marked. The symptoms were probably much more due to direct constriction of the pylorus than to indirect constriction by adhesions, for these were slight. The severe return of symptoms at home and their comparative subsidence on her coming back to the hospital strongly suggest that there was much functional disorder superadded to the organic trouble.

CASE 5.—The patient, a woman, aged 39 years, was admitted into Guy's Hospital on April 14th, 1900, under the case of Dr. J. Fawcett, and subsequently she passed under my care. She had had chronic indigestion for four or five years; vomiting and pain came on two years ago. In August, 1899, she vomited blood for the first time and was laid up for six weeks in a hospital. She had lately suffered much from pain in the epigastrium; she had been getting worse and on April 7th the vomiting began again. It increased in severity to the 10th, when she brought up a quarter of a pint of dark blood. The vomiting of blood continued and for three days she vomited blood nearly every three hours. On

admission she was very weak, anæmic, and emaciated. She lay flat on the back and had a good deal of pain in the epigastrium. Her tongue was slightly furred. The stomach resonance extended up to the left nipple. At 9 P.M. on the day of admission she was seized with a typical severe attack of tetany. She had no more attacks of tetany during her stay in the hospital. It soon became obvious from the physical signs that the stomach was considerably dilated, and on May 19th, as washing it out since admission had made no improvement, I suggested an operation, for it seemed clear that there was obstruction at the pylorus from the cicatrix of an old gastric ulcer, and the patient's condition had not at all improved since admission. Mr. Lane subsequently saw the patient and agreed with this view. On the 22nd the abdomen was opened. The stomach seemed to be constricted about two-thirds of its length from the cardiac end by an old ulcer running right round it. There was a band running from the stomach at the side of the constriction to the gall-bladder which was much deformed. This was divided between silk ligatures. Mr. Lane divided the constriction in the stomach transversely across the scar; the incision was then stitched up in the line of the scar, thus considerably increasing the diameter of the stricture. On the 23rd the patient vomited five or six ounces of altered blood. On the 24th she vomited blood four or five times a day. On the 25th she again vomited blood and the same again on the 26th, and, indeed, she frequently vomited blood up to June 25th, and by this time she was very weak, very pale, and had lost considerable ground since the operation, therefore it was agreed to re-open the abdomen. When the stomach was pulled out, the wound made by the previous incision was scarcely discernible, having healed so well, and there was plenty of room for the contents of the stomach to pass by the previous stricture. After searching for some time a short, thick, rope-like adhesion was found on the posterior of the stomach, binding it to the under-surface of the liver. This adhesion was three-quarters of an inch long and one inch wide and white in colour. A ligature was put round it and it was divided. The stomach was further examined and found to be closely adherent to the pancreas and structures at the back of the stomach. These adhesions were freed as much as possible, some vessels requiring ligature. The adhesion to the liver already mentioned contained a vessel which caused some difficulty by bleeding, but it was finally secured. It was a long, tedious operation, occupying two and a half hours. The patient was much collapsed after it and never really rallied, sinking four days after the operation.

The post-mortem examination showed the cardiac end of the stomach to be enormously dilated and a tight constriction, due to an old ulcer, not admitting the little finger, was found three and three-quarter inches from the pylorus. There was also a more recent ulcer in the neighbourhood of it. It was quite clear that this patient had had two ulcers of the stomach, one which was successfully dealt with at the first operation, and another larger ulcer three and three-quarter inches from the pylorus, which, like the first ulcer, caused much constriction and made the stomach to adhere to the liver by a long band and tightly to the pancreas and structures at the back of the abdomen.

This case illustrates the various secondary effects of gastric ulcer; it shows well the importance of bearing in mind that there may be two ulcers. It is possible that if the patient had been seen many months earlier she might have been saved. The occurrence of tetany is interesting.

**MEDICINE IN MADAGASCAR.**—A school of medicine for the training of native practitioners was established in Tananarive in 1897 and according to the *Paris Caducée* of Nov. 6th it has up to the present time sent out 15 qualified men and has 104 students. The teaching staff consists of seven individuals, two of whom are civilian doctors of medicine (one European and one Malagassy) and five are medical men or pharmaceutical chemists of the colonial service. The curriculum is of five years' duration and resembles that of the schools connected with the Faculties in France. Clinical instruction is given in a native hospital of 125 beds. These native practitioners have the opportunity of competing for appointments in a newly-formed branch of the colonial medical service and will then receive salaries ranging from 1500 to 2000 francs (£60 to £100) per annum.

## The Harbeian Lectures

OR

### TWENTY-FIVE YEARS' EXPERIENCE OF URINARY SURGERY IN ENGLAND.

*Delivered before the Harveian Society of London on Nov. 7th, 14th, and 21st.*

By G. BUCKSTON BROWNE.

#### LECTURE III.<sup>1</sup>

*Delivered on Nov. 21st, 1901.*

MR. PRESIDENT AND GENTLEMEN,—I propose in this last lecture to consider some of the complaints which particularly concern the male urethra. The most important one is certainly urethral stricture. I well remember Mr. Erichsen, afterwards Sir John Erichsen, lecturing to his students nearly 30 years ago and telling us that a urethral stricture was almost the greatest surgical trouble that a man could have, and when we look back and consider the really fearful methods of treatment in vogue during the early part of the last century and the dangerous operations to which patients were subjected, and which even now linger amongst us, his remark is quite justified. Happily great changes have taken place and the treatment of certain disorders of the urethra has been so modified and changed that urethral strictures are undoubtedly less severe than they were and less frequently met with, and when met with are so much better treated that the modern stricture patient, if he is willing to submit to a very mild and gentle discipline, may usually view his future with perfect calm and equanimity. Strictures of the urethra may clinically be divided into two great classes—those which readily yield to dilatation and which can be kept open by the easy and periodical introduction of a bougie, and those which cannot. It is this latter class of stricture which I propose to consider to-night—that is, those which do not yield to dilatation.

It may be asked, Why should anything more be done if a patient can manage to pass his urine and if his stricture will admit a small bougie? Apart from the constant danger of complete retention of urine, there is always the possibility at any moment of a urethral abscess, which is probably at first a peri-urethral abscess, with all the subsequent dangers and troubles of urethral fistulae, and even if no abscess forms, it is certain that in time serious vesical trouble will arise, the bladder may as it were give up the struggle and become atonied, or it may become inflamed, contracted, and intensely irritable, the kidneys will become pyelitic, and finally there will be interstitial nephritis, suppuration, and death. It was once my misfortune to watch a case for nearly 20 years where a distinguished man of science could never summon up courage sufficient to face the ordeal of a surgical operation. By occasionally passing a No. 1 gum bougie he was able to pass his urine, and a catheter of the same size relieved an occasional retention, but the patient's life was made miserable by increasingly frequent attacks of rigor and urinary fever, and after many years of chronic suffering he sank from complete renal failure. This case has much influenced my practice; the stricture dominated and spoilt the latter half of this poor man's life and determined me never to allow another case of tight stricture to continue unrelieved, without strong protest at any rate from me. I would say that if in a case of stricture a bougie as large as No. 8 or No. 9 English scale cannot be regularly passed, and passed with ease and comfort, something more radical must be attempted. This more radical treatment has very much occupied the minds of surgeons for the last 50 years.

On Nov. 13th, 1852, Professor Syme addressed a letter to the Imperial Academy of Medicine in Paris on this subject, and stated: (1) that there is no stricture truly impermeable, and that, if a drop of urine is able to escape, with time and care an instrument may be passed through and serve as a guide for the knife; (2) that all

<sup>1</sup> Lectures I. and II. were published in THE LANCET of Nov. 18th, (p. 1317) and Nov. 23rd (p. 1396), 1901, respectively.

strictures which cannot be remedied by simple dilatation admit of effectual relief only through a free division of the contracted part of the canal; (3) that the object can be attained with certainty and safety only by an external incision, in a line corresponding with the raphe of the perineum, upon a grooved director passed through the stricture; (4) that the only after-treatment required is the introduction of a catheter during 48 hours, with the subsequent use of a full-sized bougie at distant intervals; and (5) that the operation, if properly performed, is free from any risk whatever of hæmorrhage, extravasation of urine, or of fistulous opening.

Coming after Syme, Sir Henry Thompson accepted his teaching, that to ensure a good result from an incision into a stricture the stricture must be freely divided, but he thought Syme's method unnecessarily severe. He soon satisfied himself that a stricture could be thoroughly divided from the inside with greater ease and less risk to the patient than from the outside, and he has unquestionably established internal urethrotomy upon a scientific and surgical foundation.

The history of the exact inception of internal urethrotomy is a little obscure, but it is certain that in 1827 an English surgeon, Mr. Stafford of London, first brought forward his urethrotomes, which are undoubtedly the prototypes of all later instruments.

About 1865 the forcible rupture of stricture, generally called Holt's operation, attracted a good deal of notice; it consisted in passing through the stricture a small railway, along which a metallic wedge was suddenly pushed in with considerable violence, and the fibres of the stricture ruptured. I often saw this done in my early days. It was an operation founded upon thoroughly unsurgical principles and practised by those who would have had no sympathy with the views of the real nature of urinary fever which I enunciated in my first lecture. I hope and believe that the operation is now dead and thoroughly forgotten.

Then in the late "seventies" came the treatment of stricture by electrolysis; it was introduced with great *éclat* at one of our London societies. I think some 50 cases at first were published, and every one was said to be perfectly successful; there was not a single failure amongst them all. I pointed this out at the meeting as a suspicious sign, but the treatment was taken up vigorously and papers and books full of successes were published by surgeons of position. Where is the treatment now? Gone like "Hans Breitman's barty."

Of all these treatments internal urethrotomy is the operation which I believe has come to stay. It is, in my opinion, the one treatment for all strictures which will not yield to dilatation. I will briefly state what I mean by internal urethrotomy. I mean the free division—no scarifications, no nicks, no multiple incisions—but one bold, free stroke of the knife through all the fibres of the stricture in the floor of the urethra, since almost invariably the induration is most marked there. I maintain that this can only be done by an instrument which becomes practically a long knife in the operator's hand, and which is entirely under the control of that hand, subject to no mechanical restraint whatever, and cutting, much or little, when and where, just as the surgeon's tactile sense informs him is necessary. When making an accurate incision into any part immediately under the eye, or, for instance, in carving wood, we instinctively cut towards ourselves, or else from left to right, the hand thus being most appreciative, so in cutting a stricture I prefer to cut from behind forwards, or from left to right, and the instrument which permits of this and at the same time is simply a knife and nothing more is the urethrotome usually credited to Civiale and always recommended and used by Sir Henry Thompson. The blade is protruded beyond the stricture and then drawn forwards, the stricture is divided, the blade is then sheathed, and the instrument is withdrawn. All kinds of mechanisms have been devised whereby a knife sliding in a groove is driven through the fibres of a stricture, but I can as readily conceive the tendo Achillis being properly divided by a similar mechanism as I can a urethral stricture. Imagine something being put under the tendo Achillis, and distended until the tendon is tightly stretched, and then a knife running in a groove on this machine, passed under the tendon—would any practical surgeon expect the tendon to be properly divided? If all tendons were mathematically of the same thickness and toughness, no doubt a blade could be devised that would divide them in this manner, but it is precisely because all

tendons and all strictures are not of the same dimensions and densities that I would as strongly deprecate the use of a machine for a stricture as I would for a tendon. It is difficult for me to express in sufficiently moderate words my disapproval of such an instrument as Maisonneuve's, which still figures in our text-books and may be taken as the type of instrument preferred by those who would make surgery anything but what it ought to be—namely, a handicraft. The chromograph can never equal the painting done by the hand, or the music of the barrel-organ that of the piano. Before, however, a Civiale's urethrotome can be introduced, the stricture must be dilated up to at least No. 6 English, and I have found in practice that it is always possible after having passed a No. 1 to do so; indeed, I can only recall one case where this was difficult. It is, however, "*le premier pas qui coute*," and this leads me to the question of the treatment of difficult strictures, strictures which do not come to the surgeon until instrumentation is, if not apparently impossible, at least very difficult.

In ordinary practice if a patient in such a condition has complete retention of urine the aspirator will probably be used, and it may be used several times and still the stricture be found impassable by an instrument. Syme said, and I entirely agree with him, that puncture of the bladder for retention of urine is fully warranted in military, naval, and country practice; but "when hospital surgeons confess that they frequently find it necessary to puncture the bladder the standard of professional skill is lowered to a degree which may prove injurious to the interests of the public." After aspiration of the bladder contents and continued failure to pass a catheter *per vias naturales* the modern surgeon will usually perform a perineal section, usually after Mr. Wheelhouse's method; by this operation he exposes the anterior face of the stricture by a free perineal incision and hopes to find the orifice of the stricture with his probe. If he finds the orifice a director is introduced, and the stricture is divided by a knife and a catheter is tied in. But the orifice of the stricture cannot always be found; the most consummate craftsmen have failed. My old friend Mr. Frederick Gant well remembers Professor Syme himself, during his brief surgical career in London, failing in this way in the operating theatre of University College Hospital after a protracted search. If the stricture orifice cannot be found the operator makes a hit-or-miss incision hoping to find the urethra behind the stricture. Is it surprising that incisions made in this way sometimes refuse to heal? Still the advocates, from Syme downwards, of all the varieties of perineal incision are fond of laying stress upon their innocuousness. They all affirm that no surgical proceeding is safer or more harmless. I remember that distinguished surgeon, Mr. Walter Whitehead, saying at the Medical Society of London that with an experience of some hundreds of cases he had never known a case of severe hæmorrhage. Professor Syme, as we have seen, said the same, and apparently any difficulty in healing up the perineal incision is never met with. This is not, however, my experience. As my own cases of difficulty may perhaps be put down to my fault as an operator I will not refer to them, but will confine myself to what I have seen of the practice of others. I was much interested some years ago, when attending with Dr. Marmaduke Prickett a gentleman who some 40 years previously had undergone Syme's operation by Syme's own hands, to learn that our patient's chief and very sad recollection of the operation was that he had had to pay his Edinburgh landlady three pounds for the mattress which was ruined by the free bleeding. Professor James Syme was born in 1799 and he died in 1870. The first edition of his work on Stricture of the Urethra was published in 1849. There cannot, therefore, be many of his patients living now. I have been much interested in meeting professionally with two of them; both died as old men, and both were under my care for tight urethral stricture, showing that the vaunted permanent good results of Syme's external urethrotomy were not always justified by experience. I have several times been applied to to close a perineal fistula resulting from perineal incision; and as illustrating the terrible infliction that a perineal urinary fistula is to a gentleman of refined habits I may mention that I once knew a patient so afflicted deliberately shoot himself rather than continue to be, as he imagined, an object of disgust to others. I had not operated originally, but I had made one attempt to close the fistula and had only partially succeeded and was about to operate again when the sad event occurred. This case made a great impression upon me, and with an

experience of other cases of fistula taught me to dread all external urethral incisions, and has led me now never to make them except in rare cases of prostatic and urethral calculi, where such incision is absolutely necessary. I have, indeed, gradually become imbued with the belief that in cases of difficult stricture the perineum must on no account be interfered with. This has led me slowly to discover for myself that there are no cases of stricture, however severe, through which it is impossible to pass an instrument. This is going further than the dictum of Syme, who said that where water came out an instrument ought to go in. This teaching was not, however, original to Syme, I believe, but was taught by Chelius and probably by others older than he, as I am told by Dr. Daniel of Epsom, an old pupil of Chelius. In making this statement that all strictures are passable by instruments whether water comes through or not, I desire to speak with great care and deliberation, for I believe that the prevention and the mitigation of much human suffering depend upon belief in this doctrine. Of course I must exclude from consideration all cases where the urethra has ceased to exist, the result of mechanical or pathological injury, and I am aware that I am not in accord with many well-known authorities. For instance, Professor Samuel D. Gross, professor of surgery in the Jefferson Medical College of Philadelphia, wrote: "But I go further, and assert, upon the testimony of personal experience, that there is a class of strictures, the result of ordinary causes, which, while they admit of the flow of urine slowly and imperfectly it may be, do not permit the introduction of any instrument, however small, into the bladder." I cannot, however, accept this teaching and prefer that of the very appropriate lines of Herrick—

"Attempt the end, and never stand to doubt;  
Nothing's so hard but search will find it out."

Believing that an instrument, with care and patience, can always be passed through a strictured urethra, I next assert that when once an instrument has been fairly passed into the bladder it can boldly be withdrawn and replaced by one a size larger if the surgeon have confidence in himself; and finally, I have never yet met with a stricture which in this way could not be dilated up to No. 6 or No. 7 English. A Civiale's urethrotome can then be introduced and the stricture be divided. This is what I term my method of internal urethrotomy *tout d'un coup*, at one operation. The worst case of stricture may be anaesthetised, dilated up to No. 6, the urethrotome introduced, and the stricture cut to full size and left with a full-sized catheter tied in all at one sitting. I have, indeed, applied to internal urethrotomy the principle that Bigelow applied to stone—no two bites at a cherry: "If it were done, when 'tis done, then 'twere well 'twere done quickly."

Let us now consider the exact manipulation, we will not say of an impassable stricture, but of a very difficult one. In dealing with a difficult case of stricture I have long ago given up the use of filiform bougies; their use is not true surgery; it is simply blind groping and trusting to good fortune, whereas the surgeon should rely upon himself—that is, upon his sense of touch. Filiform bougies are really dangerous. When actually in the bladder they may break and lead to very unpleasant consequences. I once discovered one in the bladder of a patient after I had performed my operation of internal urethrotomy. The bougie had been there for months, having been broken off during an unsuccessful operation and left, and it had caused such great suffering that, never dreaming of what was there, I operated expecting to find a stone or some malignant growth. Filiform bougies are misleading also; no one can be sure where they really are, they may double up and really penetrate no distance, or they may pass into fistulae or false passages. I regret to find that they are still recommended in the latest works on surgery. I once witnessed an amusing occurrence in a crowded hospital theatre. A bad stricture case was put upon the table. The surgeon was anxious to demonstrate to the students the efficacy of a bougie exactly two feet long, filiform for several inches at one end, and gradually thickening to a full-sized bougie at the other end. The filiform end was carefully passed inch by inch into the penis and there was not a hitch or difficulty of any sort. It really did appear as if the treatment of one of the most difficult of surgical diseases had been reduced to the greatest simplicity when suddenly the patient started and said that something was tickling his back, a hurried and anxious examination was made, and the bougie was discovered to have left the urethra

by a perineal fistula and to have travelled some way up between the patient's shirt and body.

In the passage and dilatation of really difficult strictures I have no confidence in any instruments except steel ones. No silver catheters are strong enough, and I have even given up using the probe-pointed silver catheter of Syme, which for a long time was a favourite of mine. I prefer finely-polished rigid steel instruments, instruments which will not bend or yield under any proper force and therefore allow of the most exact and accurate manipulation. I employ a set of 16 sounds; each one is two sizes larger in the shaft than at the point, the smallest being No. 2 in the shaft and less than No. 1 at the point (marked 0-2), the next being 3 in the shaft and 1 at the point (marked 1-3), and so on up to the largest, No. 17 (marked 15-17).

The treatment which I have devised for all cases of difficulty or so-called impassable stricture is as follows, and I would first of all advise that the surgeon should arrange for a convenient time, when he is as free as possible from harassing calls and messages. It is no use—indeed, it is dangerous—to attempt a bad case of stricture in a hurry. The instruments required are the sounds just mentioned, a Civiale's urethrotome (I always carry two in case of breakdown), some blunt-ended English gum bougies, varying in size from No. 3 to No. 10, a foot rule marked in inches, and a No. 11 or No. 12 soft gum catheter mounted on a stylet for tying in at the close of the operation. The patient (except in a case of acute retention) has been carefully prepared, aperients have been administered, a bath has been taken, and the rectum has been cleared by a good enema. If an operating table be not available the bed should be made firm and level by placing the leaf of a table or a board under the mattress. Each leg of the patient is wrapped up in a blanket and a third blanket is placed across the body; the perineum and pubes are thus left exposed. The patient is then completely anaesthetised, for the urethral reflexes are the last to be anaesthetically abolished, and success depends upon the patient being perfectly quiet. A blunt-ended soft bougie is now introduced into the urethra, and the exact distance of the stricture, or in cases of multiple stricture of the anterior stricture, from the external meatus is accurately ascertained and measured. In very difficult cases the right-handed surgeon will have to stand on his patient's left, and, with his left finger in the rectum, he will steady and secure the point of the well-warmed and vaselined steel sound as, holding it in his right hand, he attempts to pass it. The finger in the rectum will be at once informed if the point of the instrument leaves the middle line. No force must be used, but a steady search must be made for the orifice of the stricture and firm but gentle pressure exerted when it is found. The surgeon "must steal in little by little," as Ambroise Paré says, referring to another subject. The operator will find after a while that the stricture yields under his hand, the instrument advances a little, and soon he is gratified by feeling the end of the sound fairly grasped by the stricture. At this moment no attempt should be made to pass the instrument, which is probably the 1-3 or next to the smallest, on into the bladder, at any rate not unless it passes forward quite easily, but it should be withdrawn and the next largest one, the 2-4, applied, and then the 3-5; by so doing the orifice of the stricture will be dilated and will not grip and retain the point of the 1-3, which may be taken up again and will now probably pass on into the bladder. Then the 2-4, the 3-5, and the 4-6 should be successively passed in. The sounds are known to be in the bladder by their shafts being felt to be accurately in the middle line and their points free in the bladder. When once the No. 6 or No. 7 sound has been fairly passed into the bladder it should be allowed to remain in place while the surgeon changes sides. He now stands on his patient's right, draws out the sound and slips in the urethrotome. If difficulty be found in introducing the urethrotome the sound must again be passed. Sometimes the urethrotome can best be lightly and gently shaken in, as it were, rather than actually directed and passed in. When the bulb of the urethrotome is fairly in the bladder there is a sensation of looseness and freedom quite characteristic, and the surgeon may feel sure that all is right. Nothing should be attempted until the surgeon is satisfied that the urethrotome is really in the bladder. When in proper position the instrument is carefully withdrawn until the bulb is an inch beyond where the stricture is known to begin, the anaesthetist is warned that the patient must be

perfectly still for a moment, the blade is then protruded and a free incision is made from behind forwards for a good inch along the floor of the urethra, and about half an inch deep. The blade is then sheathed and the instrument is withdrawn. A full-sized sound is now passed, a No. 12 or No. 13, and if, as is practically always the case, it passes easily, then the larger ones, Nos. 14, 15, 16, and 17, may be passed in succession, and then the soft catheter mounted on a stylet, curved so as exactly to correspond with the curve of the sounds, is passed in, the stylet is removed, and the catheter is tied in. The urine which is in the bladder will issue by the catheter and so show that all is right. Should there be a doubt about the catheter being in the bladder it should be withdrawn and again passed in, and on no account should any water be injected through it until there is no doubt that it is in the bladder. When the catheter, usually No. 10 or No. 11 (English scale), is secured in the bladder the operation is over. Usually the inlying catheter is well borne, and is removed in three days; in a very few cases there is irritation set up and the instrument has to be removed. I always do all that I can to persuade the patient to bear with the catheter for at least two days, as I am convinced that by its use the chances of hæmorrhage are much reduced and the pain and sometimes the difficulty of natural micturition are avoided. The patient sits up about the eighth day, and with the periodical passage of two or three well-warmed and well-oiled steel sounds—the largest, usually No. 14 (English)—the case is finished. The patient learns to pass these sounds for himself. By this method of mine the patient is not subjected before operation to painful, difficult, and often tedious instrumentation, and he is spared the old plan of dilating up the stricture by tying in a series of small catheters, each larger than the one preceding, which is certainly not the best preparation for a part which it is intended finally to incise, and above all the patient is spared a perineal incision, with all the slow recovery which necessarily follows such an operation. There is rarely any important hæmorrhage, and there is no risk of the possibility, by no means to be overlooked, of one of the most trying and disagreeable misfortunes—namely, a perineal urinary fistula. I have now had an experience of the operation of internal urethrotomy for 27 years, and I am happy to say that I have never lost a patient from it. I have only two or three times had any trouble from extravasation of urine, and when this has occurred it has always resulted from an incision in the anterior portion of the urethra, where the extravasation has been easily and safely dealt with.

The avoidance of preliminary instrumentation is important, for it is the disturbance of a difficult stricture by small instruments when the patient is not anaesthetised that is so often followed by urinary fever. The operation at one sitting is usually followed by no constitutional disturbance whatever. Internal urethrotomy at one operation, indeed, compares very favourably with operations by perineal section, and I would urge that even for the surgeon himself it is really a simpler operation. If a fine probe can be passed through the stricture by looking, surely it can be passed through by feeling, so what is gained by the dangerous incision of the urethra from the perineum? In urinary surgery nearly all our work has to be done by the sense of touch rather than by sight. The great thing before attempting a difficult task is to believe that it can be done. If surgeons will only believe that all strictures are passable, they will be prepared to attack them with more patience—and patience and common surgical sense are all that are required—and we shall have fewer of those distressing and often hopeless cases where permanent fistula follows perineal section. I therefore recommend and assert that it can be done—that in all cases where in the consulting-room a stricture is found to be impassable, or if, for the reasons which I am about to name in detail, internal urethrotomy has been deemed advisable, whether the stricture is easily traversed or traversed with difficulty, the stricture be dilated by a series of conical steel sounds, while the patient is thoroughly anaesthetised, up to No. 6 of the English scale and not beyond No. 8, that the urethrotome be introduced and the stricture cut in the floor of the urethra. A large sound, varying from No. 14 to No. 17, can then be passed and the patient may be left with a soft gum catheter tied in for two or three days. Internal urethrotomy is an excellent operation, as I have just suggested, in many cases where there is no real difficulty in traversing the stricture with an instrument. These cases may be grouped as follows under eight heads.

1. When time is an object. The patient is perhaps ordered on foreign service, or perhaps, on the eve of marriage, finds that he is the subject of stricture. The instances might easily be multiplied where it is justifiable to run a little more risk than ordinary dilatation entails in order to get the best and most permanent results possible in the shortest space of time.
2. When the stricture is at the urethral orifice or in the penile urethra it will not permanently yield to either continuous or interrupted dilatation, but must be divided.
3. In cases of stricture where the gentlest instrumental interference is followed by rigor and great prostration. If the fibres of the stricture are freely divided the use of a bougie will cease to be followed by rigor. If after internal urethrotomy the use of a bougie is still followed by rigor it will be because the operation has been incomplete, and it must be repeated more thoroughly. Men are often met with from malarious countries who continue to have ague-like attacks when resident again at home. I have not infrequently found this fever to be associated with urethral stricture, and have found that the attacks disappear altogether when the stricture is divided.
4. Internal urethrotomy is required when a stricture rapidly re-contracts after dilatation. Such strictures are called "resilient."
5. Also when the deposit round a stricture is obviously large and dense, dilatation is useless, and the stricture must be cut, and sometimes requires more than one cutting operation before a satisfactory result is obtained.
6. When renal or other calculus is impacted behind a stricture, the stricture had better be divided internally, and, if possible, the calculus extracted *per vias naturales*; should this prove impossible, the calculus may be cut down upon and the division of the stricture and subsequent treatment will prevent the opening made from becoming fistulous.
7. No urethral fistula will ever heal as long as the urethra is contracted in front of the fistulous urethral orifice. Divide the stricture and keep it open by periodical instrumentation and usually the fistula will close.
8. As age advances it is not unusual, although the contrary has been stated, for the troubles of a patient suffering from stricture to be complicated by prostatic hypertrophy, making it necessary for him to pass a part, or the whole, of his urine by catheter. To do so he must have a patent and easy urethra, and as stricture tends to tighten up in elderly people many of these patients find increasing difficulty in passing a catheter of reasonable size. Here internal urethrotomy comes to our aid, for the stricture is too hard and inelastic to yield to dilatation.

I will briefly relate one typical case of treatment of difficult stricture showing what can be done by internal urethrotomy at one sitting. The patient was a man, aged 40 years. He began to have stricture trouble 15 years ago. Eight years before I saw him he was operated upon for perineal abscess and extravasation of urine, but no instrument could be passed into the bladder and not one had since been passed. No urine had issued since from the penis. He had to sit down and he passed urine through four perineal openings. A seminal discharge came through fistulae with great pain. Being employed on a sugar plantation he wore a kilt and put up with this misery for eight years. He rested a little after his voyage to England and was then well anaesthetised. At five inches from the external meatus my instruments at first were all arrested. The sitting occupied one and a half hours. I succeeded in passing my smallest steel sound and then ran up to the 6½, put in the urethrotome, divided the stricture and passed a No. 13 steel sound and tied in a No. 12 catheter. This catheter was retained for six days; two days after this he learned to pass a catheter, and soon he was able to draw all his urine by that instrument. In 14 days his fistulae were dry and in a month all was so well healed that he was allowed to pass urine naturally. He had been in bed only two weeks, and in three weeks from the operation was about much as usual. He returned home quite well.

Much as I dislike incising the perineum there are four conditions where it has to be done: (1) when there is extravasation of urine; (2) when pus requires an exit; (3) in some cases of prostatic calculi; and (4) in certain rare cases of urethral calculus. In the two latter instances and in one form of prostatic abscess the urethra must be incised as well. In all cases of periprostatic abscess and of perineal abscess a free perineal incision must be made at once. The mischief which may result from delay is astonishing. In prostatic abscess I have known pus burrow into the buttocks and even into the

groins, presenting there like a bubo, before incision has been made, and of course the abscess may open into the rectum, causing a rectal urinary fistula which may need months of careful treatment and may even embitter the whole of the remaining lifetime. The ordinary prostatic abscess should be opened from the perineum, but the urethra, in my judgment, should be severely left alone. There is, however, one form of prostatic abscess which I have not seen described and which needs special treatment. Two forms of prostatic abscess are usually mentioned—the periprostatic abscess and the follicular abscess. But I have occasionally been consulted by elderly men exhausted by a profuse and continuous discharge of pus from the urethra, and upon rectal examination I have found one or other prostatic lobe simply a bag of pus draining imperfectly and slowly into the urethra. There has been no periprostatic collection of pus. It is unwise to attempt to go straight into this prostatic bag of pus from the perineum for obvious reasons. I have had great success by opening the urethra behind the bulb from the perineum. I then pass the forefinger of the left hand gently into the prostatic urethra, along this finger I pass a probe-pointed director, and guided by the end of the forefinger, the probe is made to pierce the wall of the prostatic urethra from the urethra. Then a pair of polypus forceps is passed in and opened so as to dilate the wound in the prostatic urethral wall. I have found that, so treated, the abscess drains freely and recovery takes place in cases which under other treatment do not do well.

Then with reference to perineal abscess, a patient afflicted with a tight stricture sometimes without any very definite cause finds himself unwell. His perineum is hard, tender, and throbbing, and he may or may not have a rigor. We all know that a perineal abscess is in process of formation. All surgeons open such an abscess at once, giving vent usually to a large quantity of matter; in a few days urine is passed by the wound, and unless the stricture is attended to a permanent urethral fistula remains; often the stricture is leisurely attended to by dilatation, and even then the fistula is generally obstinate and a source of annoyance to the patient for years. Some surgeons are more heroic (for example, the late Dr. Van Buren of New York); they open the abscess and then divide the stricture from the outside upon a grooved staff, thus performing a Syme's operation and remedying the abscess and the stricture at the same time. The result is generally satisfactory, but all will allow that such an operation is a very serious tax upon a patient's powers and that he must remain a patient, and far from comfortable, for some four, five, or six weeks. Such an abscess as just described is not an extravasation abscess; at first it does not communicate with the urethra although it does so in a few days; it forms in the perineum outside the urethra, as Sir Henry Thompson has pointed out, just as an abscess may form by the side of the rectum without opening into it. A real extravasation abscess is not so very common; it begins by minute extravasation behind the stricture, but the formation is tedious and is preceded by a slow growing cord like process which is unmistakable to the touch of the practical surgeon. Now my point is this: if the surgeon is prompt in dividing the urethral stricture a true perineal abscess never will communicate with the urethra and the patient will be saved all the trouble of a urinary fistula. I freely divide the stricture from inside the urethra, pass a No. 15 or No. 16 (English) steel sound, and tie into the bladder a No. 12 gum catheter per penem. I then put the patient into the lateral lithotomy position and, with my left forefinger in the bowel, I introduce a sharp narrow knife into the perineum half an inch above the anus. I go straight in until pus issues and then withdraw, and in withdrawing divide the skin upwards a little so that the finger can follow the knife; the finger dilates the opening and finds a large cavity full of pus with the urethra filled by the catheter lying above, almost, as it were, dissected away from the surrounding tissues. As a rule this one opening will suffice to drain the abscess, but I have had to make a more dependent opening in the buttock. The catheter should remain in about three days. Patients treated in this way, I find, make easy and rapid recoveries.

In concluding this lecture on the urethra I would submit that while it is very easy to cut into a urethra it is sometimes very difficult to heal up the incision and that a urethro-perineal fistula is a lamentable complaint. The urethra should never be opened in any case of vesical calculus, urethral stricture, perineal abscess and extravasation, or for

vesical exploration or drainage, or for any prostatic operation. I would look upon urethral incision in these cases as a surgical mistake.

## ANATOMICAL PREPARATION-MAKING AS DEvised AND PRACTISED AT THE UNIVERSITY OF EDINBURGH AND AT THE HUNTERIAN MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

By J. BELL PETTIGREW, M.D., F.R.C.P. EDIN., LL.D.,  
F.R.S., &c.,

CHANDOS PROFESSOR OF MEDICINE AND ANATOMY AT THE  
UNIVERSITY OF ST. ANDREWS.  
(Concluded from page 1403.)

TOWARDS the end of 1862 I was appointed first assistant in the Hunterian Museum of the Royal College of Surgeons of England, founded by the illustrious John Hunter, where Cliff, Owen, and Queckett had been conservators, and where Paget and Huxley often worked. The museum afforded endless opportunities for dissecting, injecting, making, and mounting anatomical preparations of all kinds. It possessed vast stores of human and comparative anatomy stowed away in tanks, jars, bottles, &c., and fresh material was sent in quantity from all parts, especially from the Zoological Gardens in Regent's Park, and the various London hospitals. I found the higher dissection at the Hunterian Museum at a very low ebb. The museum could boast many magnificent specimens, the work of the famous John Hunter and others who followed him in bygone days, but fine modern preparations were conspicuous by their absence. As a matter of fact, no new high-class dissections or injections were being made, the authorities largely contenting themselves with remounting old specimens and keeping the collections in a state of efficiency. The art of making original dissections and injections had apparently been lost. There was, moreover, something like stagnation in the upper workrooms of the museum which I occupied and where dissecting, injecting, and remounting were carried on.

I was allowed two assistants, Thomas and William Pearson (father and son). Old Tom the father was very gouty and somewhat frail, but a fine specimen of a frank, genial Englishman. His work consisted in remounting specimens and attending to store preparations. William, the son, waited upon me and performed minor offices in my department. He was a well-grown, good-natured lad, 18 or 20 years of age, with a plain education, and no knowledge either of anatomy or dissecting or preparation-making. I found him useful and faithful, and, as he took an intelligent interest in my work, I was delighted to teach him everything. He was very painstaking and ultimately became a first-rate dissector. I give these details as he is the only individual living who knows and has practised my peculiar modes of dissecting, injecting, and preparation-making. This he has done for over 30 years with great advantage to the museum and profit to himself.

There were at the Hunterian Museum three work-rooms in all, situated at the top of the building. These rooms were, when I entered on my duties, in a most insanitary condition. They were crowded with large and small jars and bottles containing vegetable and animal specimens of every conceivable kind. As the lids and stoppers of many of them were imperfect, and the spirit in which the specimens were immersed had evaporated, the contents in many cases were semi-putrid and evil-smelling to a degree. As a consequence the atmosphere was laden with foul spirit and decomposing vegetable and animal matter sufficient to engender a plague. I at once set about sweeping out the Augean stables and had all the jars and bottles overhauled, useless specimens thrown away, and fresh spirit added to such as were to be kept. The jars and bottles were also carefully stoppered. The amount of soiled spirit liberated during my cleansing operations, and which under ordinary circumstances would have been thrown away, was sufficient almost to float a Spanish galleon. In order to prevent what would have been culpable waste I had a small rectifying still erected, similar to that

employed in the anatomical department of the University of Edinburgh. Prior to my arrival all old and foul spirit was destroyed. The spirit employed in putting up preparations of every kind, even new preparations, was diluted methylated spirit with a distinctly yellowish tinge. Pure white, limpid, re-distilled spirit was unknown to Mr. W. H. Flower, the conservator, and to the museum authorities.

With a view to protect myself from the unsavoury, unwholesome atmosphere of the upper workrooms I invariably worked at an open window, preferring occasional colds to possible blood-poisoning. William Pearson was always at my elbow, as I required him constantly for holding, tying, cutting, cleaning instruments, attending to syringes, preparing injections, hot water, &c. I had always a kettle with boiling water on the fire in winter and a saucepan with boiling water on a Bunsen burner in summer. Boiling or very hot water was my sheet-anchor in every kind of dissection. My dissections were generally made in cold water. They were, however, invariably finished by the aid of hot water in a manner to be presently explained. I made hot and cold injections, but greatly preferred the latter worked up and finished in hot water, as they did not shrink on cooling and always looked plump and fresh. I employed gelatin variously coloured for my hot injections, and white of egg, farina of various kinds, and plaster-of-Paris for my cold injections. The plaster-of-Paris injections, which were my invention, were especially successful. They took the most brilliant colours, did not shrink, and could be worked up in cold or hot water as desired. They, moreover, could be indefinitely preserved in spirit which they did not in the least discolour.

During my first year at the Hunterian Museum (1863) I devoted a considerable amount of time to devising and perfecting new modes of dissecting, injecting, and preparation-making and mounting. In this year I introduced the following novelties in museum-work in London: (1) the re-distillation and purification of foul spirit as carried on at the anatomical museum of the University of Edinburgh; (2) a new form of preparation-jar with flat ground top and glass cover as devised by Professor John Goodsir; (3) my hot-water methods of dissecting employed by me in Edinburgh in 1858, 1859, and 1860; (4) my mode of injecting blood-vessels with liquid plaster-of-Paris coloured red for the arteries, and blue for the veins; (5) my method of distending the hollow viscera (heart, stomach, intestine, bladder, and uterus) and cavities generally with liquid plaster-of-Paris variously coloured; (6) my plan of mounting dissections for teaching, examination, and museum purposes in liquid plaster-of-Paris run into the bottoms of large flat jars, capsules, and troughs, containing spirit and covered with glass lids (as the plaster-of-Paris was coloured with ultramarine blue the dissections were thrown out in relief, the effect being highly artistic); and (7) my mode of dividing the human body into sections by the aid of a very thin, finely toothed saw. By this means I obtained beautiful lateral, antero-posterior, and transverse sections of the head and neck, the brain and soft parts being supported by the bones, cartilages, and hard parts. I also got fine sections of the human foot and other parts.<sup>1</sup>

At the end of my first year in the Hunterian Museum an exhibition of the specimens (anatomical, physiological, and pathological) prepared during the year was held in the theatre of the Royal College of Surgeons of England. It was open to the scientific and professional public. Everyone seemed pleased with the quantity and quality of the work done. It was a novelty in London to see highly-finished dissections mounted in pure, colourless spirit in crystal jars with glass lids which admitted a flood of light. Similar annual exhibitions were held each year while I was in office. At these exhibitions anatomists, physiologists, physicians,

<sup>1</sup> The following is taken from the Annual Report of the Conservator (Mr. W. H. Flower) to the Museum Committee of date Jan. 6th, 1864. It deals with work done in 1863. "The only other point to which the conservator feels it necessary to call the attention of the committee is the work performed by Dr. Pettigrew during the year. Of this only a portion is seen in the new preparations in spirit, physiological and pathological, now exhibited. Much time of his first year has necessarily been expended in arranging the workrooms, the condition of which, both as to cleanliness and general convenience, has been greatly improved. A considerable number of experiments have also been made as to the best materials for injecting blood-vessels and the method of displaying hollow viscera, the successful result of which quite justifies the expenditure of time they have occasioned. Preparations for the anatomical examinations for the Diploma of the College have also taken up much time; and many specimens which are partially dissected, not being quite ready for exhibition, will fall into next year's series of additions."

surgeons, and other distinguished men were frequently present, and in this and other ways I was privileged to make the acquaintance of nearly all the leading medical and scientific men in London and the provinces—Sir William Lawrence, Sir William Ferguson, Sir James Paget, Sir George Burrows, Sir Thomas Watson, Professor Owen, Professor Huxley, Professor Sharpey, Professor Humphry, Professor Rolleston, Charles Darwin, Lockhart Clarke, Sir Andrew Clark, Sir Richard Quain, Dr. W. B. Carpenter, Sir John Lubbock, Dr. St. George Mivart, Dr. Edward Gray, Dr. Albert Günther, Dr. James Murie, Sir B. W. Richardson, Sir T. Spencer Wells, Dr. John Rae, Sir William S. Savory, Mr. Wheelhouse, Sir Samuel Wilks, and others.

As is well known, the Royal College of Surgeons of England, in addition to being the proprietors and custodians of the Hunterian Museum, are also a great examining body. During my term of office at the museum the examinations for Membership of the College were held in the theatre of the College adjoining the museum, but all under the one roof. At certain periods of the year a number of medical students from the several London hospitals called "prosectors" came to the College to dissect bodies for the examinations. The dissections in some cases were none of the best, and as fresh dissections had to be made for every examination it occurred to me that much time and labour would be saved if I supplied the Court of Examiners with a set of carefully prepared permanent examination specimens. I carried out my intention as follows. I procured a number of large, flat glass jars and earthenware troughs of various shapes, having a diameter of from 12 to 18 inches. The upper edges or rims of these were ground flat to receive glass lids which could, if required, be hermetically sealed. When the dissections, prepared according to the hot-water method, were made I ran coloured liquid plaster-of-Paris (preferably dark blue) into the bottoms of the jars and placed the dissections in the plaster-of-Paris before it set. The result was artistic to a degree. The coloured plaster-of-Paris contrasted finely with the pale dissections and made them stand boldly out. I injected the blood-vessels also with coloured liquid plaster-of-Paris—the arteries red, the veins blue. The specimens prepared in this way consisted of:—1. Sections which I made with a thin, fine-toothed saw of the head and neck—vertical, antero-posterior, and lateral, also horizontal or transverse—at intervals of an inch or so, showing the nares, cavity of the mouth, fauces, pharynx, vocal chords, brain, and skull, *in situ*. Similar sections (antero-posterior views of the brain, skull, and soft parts) were put up permanently in glass jars in Room V. of the Museum. 2. Sections of the foot—bones and soft parts. 3. Dissections of the viscera. 4. Dissections of the muscles, blood-vessels, and nerves of various regions. 5. Dissections of glands, ligaments, tendons, &c. These examination specimens, prepared and mounted permanently as described, were humorously designated "pickles" by the students, and I fear gave badly prepared men some trouble. They have now, I am glad to find, come into general use in the various teaching and examining institutions in this and other countries. So highly pleased was the Court of Examiners with the so-called "pickles" that the President of the College, Mr. John Hilton, was instructed to offer me an honorarium for the extra labour involved and as an acknowledgment of the new method. This I respectfully declined.

As my hot-water method of dissecting the muscles and tissues generally has never been described or published the following short account may prove interesting and welcome. Supposing a human forearm was to be dissected the following was the mode of procedure. I first carefully dissected the part with a scalpel and forceps in the ordinary way as I would a dissecting-room specimen. I then placed the part in a trough of cold water and re-dissected it under water with forceps and scissors, chiefly the latter. The re-dissection under water was a tedious process and required much care and patience, the amount of fat, cellular and other tissue, to be removed being quite extraordinary. This done, I raised the dissection to the surface of the cold water and poured over its several parts in succession, from a wide-mouthed jug, hot water just off the boil. The result was the immediate shrinkage and permanent disappearance of all fat, cellular and other tissue, fluff, &c., which had escaped the scissors and which so greatly disfigure ordinary dissections when placed in fluids. Dissections made by the hot-water method present a smooth, more or less polished surface. Great care and skill were required in applying the hot water. If the water was too hot or too long

applied the part of the dissection which was being dealt with was made to contract too much. This catastrophe was avoided by suddenly dipping the part of the dissection under treatment in the cold water, which corrected the mischief. A moderate application of the hot water effectually got rid of the cellular tissue and fat of muscle, but a larger quantity was required in dealing with blood-vessels, fasciæ, tendons, ligaments, and bones. In the case of muscle the hot water was applied until the cellular tissue disappeared and the muscles were sufficiently shrunk to present a normal appearance. In the case of blood-vessels it was applied until the cellular and fibrous structures presented a compact, even surface. In the case of nerves (the nerves of the heart which, as explained, required special treatment excepted) it was applied sparingly and only until the strands of nerve-fibres were brought into relief. In the case of glands, the dissector had to use his discretion. By a judicious use of hot water all the tissues of the body can be perfectly cleaned and rendered more or less taut relatively to each other. In this way the flaccid, dragged appearance presented by ordinary dissections is avoided. When every part of the specimen had been carefully subjected to the hot-water treatment the dissection was placed in a trough of weak spirit and dissected a third time. The third dissection in weak spirit was final and not usually a serious business. The specimen was then suspended by silk threads in a crystal jar containing rectified spirit and hermetically sealed, preferably by the aid of a glass lid fixed with acetic acid. Dissections made by me according to the hot-water method over 30 years ago are as good to-day as when first put up. They will, I believe, practically last for ever if kept supplied with spirit of the requisite strength. All such preparations require to have fresh spirit added occasionally—to make good the deficit caused by slow evaporation.

The plaster-of-Paris injections were made as under. Nozzles or short end tubes adapted to the point of the syringe to be employed in injecting were fixed in the blood-vessels, hearts, hollow viscera, &c., the whole being immersed in cold water in a deep basin by themselves. A handful or more of the finest plaster-of-Paris procurable was then dropped into two separate basins, each of which contained a given quantity of cold water, the water in the one case being coloured with vermilion, and in the other with ultramarine blue. When the liquid plaster-of-Paris, coloured as explained, was of the consistency of cream it was gently drawn into the interior of the syringe to prevent the ingress of air. The point of the syringe, charged with liquid plaster-of-Paris minus air, was then inserted into the nozzles fixed in the blood-vessels and structures to be injected and the contents were slowly driven home. This form of injection must be done expeditiously, as a period arrives when the plaster-of-Paris sets very quickly and refuses to flow. Plaster-of-Paris when once set is not disintegrated by the action of spirit, neither does it shrink nor appreciably diminish in volume when exposed to spirit or hot water. It, moreover, gives off no colour, which is important. It is advisable when making plaster-of-Paris injections to clean out the nozzles, syringes, and basins at once with cold water. If this precaution be not taken endless trouble follows, it being next to impossible to remove the plaster-of-Paris when once set.

The more I employed the hot-water method of dissection and the cold mode of injection with liquid plaster-of-Paris, the more I was convinced of their value for teaching, examination, and museum purposes. In the old days specimens to be injected were slowly heated up in warm water and hot injections of various kinds gently forced into the blood-vessels, the specimens being dissected in cold water or in cold diluted spirit. As everything contracts on cooling the specimens prepared in this way looked withered and shrivelled when finished, a state of matters not improved by preserving them in spirit, which increases the shrinkage. According to the hot-water method introduced by me all these defects are avoided. In the new method the specimens in the first instance are placed in cold water and are injected with cold material—farina, flour, white of egg, and plaster-of-Paris. They are then dissected in cold water, hot water a little below the boiling-point being applied to them as the dissection proceeds. Specimens prepared by the new method do not shrivel when placed permanently in spirit; on the contrary, they present a fresh, full, blooming appearance. It should be stated that in the hot-water process the heat employed in finishing the specimens causes sufficient shrinkage to prevent further shrivelling when the specimens are finally placed in spirit for

permanent preservation. The shrinkage obtained by the hot-water process is of the utmost importance, as it enables the dissector to contract and tighten tissues of all kinds which may have been dragged out and rendered flaccid during the process of dissection. By continually raising the temperature of the hot water a flaccid muscle can be made to assume the shape and position natural to it in a state of contraction or semi-contraction. This explains the taut condition of the tissues in my dissections of all parts of the human body and of the lower animals, especially their muscular arrangements.

The hot-water method of dissecting and making anatomical preparations, coupled with the cold plaster-of-Paris injections of blood-vessels, hollow viscera, &c., and the mounting of dissections in liquid plaster-of-Paris placed in the bottoms of flat glass jars, capsules, and earthenware and other troughs containing spirit and covered with glass lids practically revolutionised the art of preparation-making and introduced not only an element of stability, but also a distinctly artistic element. My methods were available equally for the largest and smallest specimens and results not hitherto dreamt of were attained. It was possible to inject, to dissect, and to preserve a hip and thigh, a leg, an arm, or any large portion of the human body, or of the bodies of animals. Characteristic and outstanding specimens of human muscular dissections made by me by the hot-water method are to be seen in Room I. of the Hunterian Museum of the Royal College of Surgeons of England. Reference should also be made to the muscular fibre dissections of the stomach, bladder, and uterus, to be described presently. As examples of cold injections with plaster-of-Paris the series of preparations illustrating the movements of the valves of the vascular system in vertebrates should be mentioned. In this series the blood-vessels and the cavities of the auricles and ventricles of the heart are injected with liquid plaster-of-Paris coloured red and blue. Mixed dissections, that is, dissections displaying muscles, blood-vessels, nerves, &c., are to be found in the comparative anatomy series. Examples of ordinary vermilion and other injections by me also occur in this series. The human and comparative physiological series of dissections and injections between the years 1863 and 1868 were all made according to my methods, either by myself or by my assistant, William Pearson, under my immediate supervision. The cold injections and hot-water dissections were greatly admired by American visitors and I had a tempting offer to cross the Atlantic and to commence operations on the other side. This offer I did not accept from patriotic and other considerations.

In the years 1863 and 1864 I planned and commenced an elaborate series of dissections and injections of the human body, and of the bodies of the lower animals on the hot-water and plaster-of-Paris methods. As a first instalment I took up the hollow viscera—namely, the heart, bladder, stomach, intestine, and uterus in man and animals. These I injected and distended with coloured liquid plaster-of-Paris. I then dissected the blood-vessels, nerves, and muscular fibres of each by the hot-water process. I also, as already indicated, devised, and in large measure executed, a series of carefully finished hot-water and plaster-of-Paris dissections and injections for examination purposes, the dissections being placed in liquid plaster-of-Paris run into the bottoms of large flat glass jars, capsules, and troughs filled with spirit and covered with glass lids. The various sets of dissections here referred to were all in hand at the same time and were advanced by stages as suitable material came to the museum and was available. I worked at these continuously from 1863 to 1868, when I resigned my appointment at the museum from failing health.

In addition to what I called the physiological series, a large number of pathological specimens were dissected and prepared on the hot-water system mainly by my assistant, William Pearson. During the years 1863 and 1864 I made an extensive series of plaster-of-Paris injections and casts of the blood-vessels (arteries and veins), and of the several compartments of the heart, my object being to show how the valves of the blood-vessels and of the heart acted. I set the valves in motion by the liquid plaster-of-Paris, and when it set I could remove the walls of the blood-vessels or the walls of the auricles and ventricles in such a way as to display the valves in every possible position. The plaster-of-Paris injections gave exact casts of the blood-vessels, whether arteries or veins, and of the several compartments of the heart, and also of the valves and sinuses or pouches behind the valves. Further, they fixed the valves of the heart, arteries, and veins in various and perfectly natural positions. Lastly,

they gave the precise forms assumed by the blood and the valves at every stage of the diastole and systole of the heart. They conclusively proved that the blood takes a spiral form within, and is spirally ejected from, the ventricles during the systole, and that the semilunar and auriculo-ventricular valves are spirally opened and spirally closed. A result so novel could scarcely have been foreseen. The proof obtained by the liquid plaster-of-Paris methods cannot, however, be gainsaid. The vascular series of dissections and plaster-of-Paris injections and casts are 32 in number and form part of the permanent collection of the museum. They were considered worthy of separate descriptions in the museum catalogue. The results of this research which entailed an examination of the entire valvular arrangements in the fish, the reptile, the bird, and the mammal were communicated on March 21st, 1864, in the form of a memoir to the Royal Society of Edinburgh and published in the Transactions of that society with two plates (57 figures), the same year. The title chosen for the memoir was "The Relations, Structure, and Functions of the Valves of the Vascular System in Vertebrata." As I was most anxious to give faithful representations of the movements of the cardiac and other valves and of the varying shape assumed by the blood during the diastole and systole of the heart, I took photographs of my vascular preparations on the roof of the museum. These I developed in a small, improvised dark-room under considerable difficulties. The results obtained were so satisfactory that I urged the College authorities to construct a proper photographic studio and dark room on the leads for museum purposes generally. The subject was considered, but nothing came of it. Progress is proverbially slow. It was not until the year of grace 1868 that a fitting photographic studio was erected. In that year a storey was added to the museum and the claims of photography were duly recognised. Nothing daunted I continued my photographic operations on the roof in the clear morning light. I photographed in succession my dissections of the muscular fibres of the bladder and of the stomach and uterus. The bladder dissections, 45 in number, were finished in 1865, and a memoir based on them was communicated to the Royal Society on June 21st, 1866. It was published in the Philosophical Transactions of the Royal Society in 1867 with three plates (56 figures), under the title, "The Muscular Arrangements of the Bladder and Prostate and the Manner in which the Ureters and Urethra are Closed." The bladders dissected included those of man and the lower animals; they are permanently preserved and catalogued in the Hunterian Museum. The bladder dissections were made as follows. I fixed an injecting nozzle or end tube in the neck of the bladder and placed both in a deep basin of cold water. I then added a handful or more of the finest plaster-of-Paris to a given quantity of cold water in a second basin; the water being deeply coloured with ultramarine blue. When the coloured cold water and plaster-of-Paris were thoroughly mixed by stirring with the hand, and were of the consistence of thick cream, I slowly filled the injecting syringe to prevent the admission of air into it and cautiously distended the viscus, taking care to move it about between the hands in the cold water, in order to preserve its shape while the plaster was setting. The degree of distension could be regulated at discretion. As the deep blue plaster-of-Paris shone through the thin walls of the bladder, the muscular fibres, nerves, and blood-vessels were thrown into bold relief and could be traced and dissected without difficulty by the aid of hot water. This plan had the great merit of putting everything on the stretch and so securing the relative position of the muscular fibres, nerves, and blood-vessels to each other. The arrangement lent itself admirably to the hot-water process of dissection.

The dissections of the stomach were made in precisely the same way with the following slight difference (in some cases) for human stomachs. The walls of the human stomach being in some instances exceedingly thin, so thin, in fact, as only to furnish continuous layers in certain parts, the stomachs were artificially shrunk before being distended with liquid plaster-of-Paris. The shrinkage was effected as under: the pyloric end of the stomach was tied off and the injecting nozzle fixed in the œsophageal or cardiac end of the stomach. A small quantity of nearly boiling water was then injected into the stomach and the stomach was sunk in a trough of very hot water. The walls of the stomach being bathed by hot water on either side shrunk to the desired dimensions. The water in the interior of the stomach was

then withdrawn, and cold, liquid, coloured plaster-of-Paris was made to take its place. The human stomachs so prepared were dissected by the aid of hot water, as in other cases. The stomach dissections, 17 in number, included those of man, the monkey, horse, bear, cat, dog, sheep, and porpoise, and form part of the permanent collection of the museum. They were made the subject of a memoir communicated to the Royal Society in June, 1867, with two plates (24 figures), an abstract of the memoir appearing in the Proceedings of the Royal Society for June 20th, 1867, under the title, "On the Distribution of the Fibres in the Muscular Tunics of the Stomach in Man and other Mammalia."

The dissections of the uterus, 10 in number, were made in the same way as those of the bladder. The arrangement of the muscular fibres in the stomach, bladder, uterus, and heart closely resemble each other. They all form characteristic figure-of-8 loops, the loops being arranged in more or less perfect layers.

The dissections of the muscles (voluntary and involuntary), blood-vessels, nerves, &c., of the human body and of the bodies of animals were all made by my hot-water and plaster-of-Paris processes. These are now sufficiently numerous to fill a whole museum, and occupy a unique position in the annals of anatomy. Not only did I design this great series but, as already partly explained, I actually dissected and mounted in great specially-made glass jars, with glass lids, some of the largest and most important of them.

As illustrative examples of human muscular dissections made by me, during my term of office, by the hot-water method I would direct the attention of the reader to the following, contained in Room I. of the Hunterian Museum of the Royal College of Surgeons of England, and duly described in the museum "Catalogue of Dissections and Models illustrating Normal Human Anatomy":—No. 29: superficial muscles of the left scapula and upper arm. (This is a large and illustrative dissection.) No. 34: superficial muscles of the left forearm and hand. (This is one of the most finished muscular dissections in the museum.) No. 35: deep muscles of the left forearm and hand. No. 40: superficial muscles of the right hand. No. 43: right-hand dorsal

\* The following extracts bearing on this subject are from the annual reports published by the conservator of the museum, Mr. W. H. Flower.

"*Physiological series.*—It only remains now to speak of the preparations preserved in spirits, added during the year, mostly prepared either by or under the immediate superintendence of Dr. Pettigrew, assistant in the museum. In number these considerably exceed those of the past year. They include a series illustrating the structure and action of the valves of the heart and of the blood-vessels. As the value of these most instructive and beautifully-prepared specimens must be much enhanced by an account of the special points they are intended to illustrate, it has been thought desirable to append to this report a concise description of each of these preparations. Since their completion Dr. Pettigrew has been engaged in making a series of preparations demonstrating the arrangement of the muscular fibres of the urinary bladder." (Report of date Dec. 31st, 1864).

"*Physiological collection.*—The addition of specimens in spirit to this department, having chiefly in view the increase of preparations illustrating normal human anatomy, has mainly occupied Dr. Pettigrew's attention during the year (1865-66). Among those now shown to the committee is an extensive series of very highly-finished preparations exhibiting in an exhaustive manner the disposition of the muscular fibres of the human bladder. The results obtained in the dissection of these specimens have been described by Dr. Pettigrew in a paper read before the Royal Society on the 21st of last June. Besides these, a commencement has been made of a series of preparations showing in a permanent manner the voluntary muscles of the human body, to be followed, if the committee think it advisable, by others, which will afford a complete exposition in detail of every portion of the body. The amount of time and labour expended in the production of such preparations is very great; and as there are sometimes difficulties in obtaining suitable materials when required, the completion of such a series as is contemplated will occupy several years; but, if carried on as now commenced, this College will be able to show a museum of human anatomy unrivalled by that of any other collection in the world." (Report of date July 2nd, 1866).

"*Physiological collection.*—Dr. Pettigrew has also, as in previous years, made some instructive preparations illustrating human anatomy. These are quite irrespective of the large and beautiful series prepared expressly for the Court of Examiners." (Report of date July 1st, 1867).

"*Physiological series.*—The old collection remains in the same condition as before. .... In the meanwhile, additions are continually being made as opportunities occur. Many of those shown on the present occasion are the work of the late assistant in the museum, Dr. J. B. Pettigrew. This gentleman in January last resigned the office he had held for five years on account of an impairment of vision (it may be hoped, only temporary) occasioned by over-exerting his eyes in following out a series of minute researches. .... I am glad to take this opportunity of acknowledging the numerous improvements in the methods of preparing and mounting anatomical specimens which Dr. Pettigrew introduced into the institution, and especially in originating a higher standard of excellence in finishing preparations in spirits than had been thought necessary before, and which I hope will never be departed from." (Report of date June 29th, 1868).

and plantar interossei. No. 104: superficial muscles of the left half of pelvis, hip, and thigh. (This is the largest muscular preparation in the museum and one of the most striking.) No. 112: superficial muscles of the left leg and foot—a typical specimen. No. 113: deep muscles of the right leg and foot. No. 118: superficial muscles of the left foot. No. 119: ditto second layer of muscles of the right foot. No. 121: ditto third layer of muscles of the left foot. Nos. 181, 182, 274, 275, 276, 286, 287, and others of the catalogue were also dissected and prepared by me by the hot-water method.

In addition to these, and also forming part of this great series, though separately catalogued and placed for convenience in Rooms IV. and V. of the Hunterian Museum, are my elaborate hot-water dissections, plaster-of-Paris injections, casts, &c., over 100 in number, as follows: (1) my dissections, plaster-of-Paris injections, casts, &c., of the heart, blood-vessels, and valves of the vascular system in vertebrata; (2) my dissections of the muscles, blood-vessels, and nerves of the bladder, prostate, &c.; (3) my dissections of the muscles and nerves of the uterus in the human female, the cow, mare, sheep, bitch, guinea-pig, &c.; (4) my dissections of the œsophagus, stomach, &c., in man and in the lower animals; and (5) my sections made with a fine saw of the human foot and head showing the scalp, skull, brain, and other parts *in situ*. These saw-cut sections, so far as I know, were the first of their kind. Some years later Braune of Leipzig sawed frozen human bodies in all directions and with remarkably good results. The practice has now become quite common. Latterly plaster-of-Paris casts have been taken of the sections, and the several parts displayed coloured to imitate nature. These coloured plaster-of-Paris casts of the sections leave nothing to be desired for teaching and examination purposes.

During the years 1866 and 1867 an unusually large number of pathological specimens were prepared and mounted for the museum. I found time, however, to add a considerable number of finished dissections to the great anatomical and physiological series. Amongst them I may mention (1) the deep muscles of the human forearm and hand; and (2) the deep muscles of the human leg. These two dissections prepared by the hot-water method are to be seen in Room I. of the Hunterian Museum and are numbered 35 and 113 in the "Catalogue of Dissections and Models illustrating Normal Human Anatomy."

Having from 1863, and previously to that date, taken a keen interest in, and made numerous dissections and experiments on, the subject of flight, I in 1866-1867 injected the air-sacs and hollow bones of the swan and goose with liquid coloured plaster-of-Paris in order to ascertain what part, if any, the heated air contained in these cavities played in the production of flight. After carefully investigating the subject I came to the conclusion that the hollow bones and air-sacs had nothing whatever to do with flight, and for the following reasons: (1) bats and some of the fastest flying birds have neither hollow bones nor air-sacs; (2) birds which do not fly, such as the emu, have air-sacs; (3) air-sacs are found in animals never intended to fly (of these I may mention the air-sacs connected with the larynx of the orang-outang and the gular pouch of the bustard); and (4) the heated air imprisoned in the air-sacs of flying birds is so insignificant in quantity that it can exert no appreciable influence in elevating the bird.

In March, 1867, I delivered a lecture on the Various Modes of Flight in Relation to Aeronautics at the Royal Institution of Great Britain, in which I pointed out that contrary to all expectation the wing of the insect, bat, and bird is a screw structurally and functionally, and that it strikes downwards and forwards during the down stroke, and not vertically downwards, or downwards and backwards, as was universally believed. I also demonstrated in a memoir communicated by Professor Huxley to the Linnean Society in June, 1867, that the wing forms a figure-of-8 track in space when the flying creature is artificially fixed and that the figure-of-8 is opened out or unravelled and describes a waved track when the flying animal is advancing freely in space.<sup>5</sup> Professor E. J. Marey, of the College of France, Paris, corroborated my views as to the figure-of-8 and waved movements made by the wing some two years after I announced the discovery.<sup>6</sup>

<sup>5</sup> On the Various Modes of Flight in Relation to Aeronautics. Proceedings of the Royal Institution of Great Britain, March 22nd, 1867. On the Mechanical Appliances by which Flight is attained in the Animal Kingdom. Transactions of the Linnean Society, vol. xxvi. (read June 6th and 20th, 1867).

<sup>6</sup> Revue des Cours Scientifiques de la France et de l'Étranger, Feb. 13th, 1869, and subsequently.

Later, Professor Marey says: "I have ascertained that in reality Mr. Pettigrew has been before me and represented in his memoirs the figure-of-8 track made by the wing of the insect and that the optic method to which I had recourse is almost identical with his. But we differ entirely as to the interposition of the trajectory seen by us both. I hasten to satisfy this legitimate demand and leave entirely to Mr. Pettigrew the priority over me relatively to the question as restricted."<sup>7</sup> Professor Marey in his admission of priority endeavours to make a distinction without a difference, for in another place when speaking of the optic method by which the figure-of-8 was revealed to me, and subsequently to him, he writes: "We have seen, when treating of the mechanism of insect flight, that the fundamental experiment was that which revealed to us the (figure-of-8) course of the point of the wing throughout each of its revolutions. Our knowledge of the mechanism of flight naturally flowed, if we may so say, from this first notion." As a matter of fact, the so-called restriction of Professor Marey consisted in an erroneous and inaccurate representation of my descriptions and drawings of the figure-of-8 and waved movements made by the wing published in the twenty-sixth volume of the Transactions of the Linnean Society, to which allusion has been made. Professor Marey also blundered as to the figure-of-8 spiral movements made in locomotion generally and as to the screw configuration and function of the travelling organs of animals as a whole. It is easy to apply recording apparatus (the graphic method) to illustrate and to verify a principle once discovered and explained, and this is all that Professor Marey has done so far as the figure-of-8 and waved movements made by the wing are concerned. Mere mechanical corroboration, however, does not invalidate the original discovery, neither does it establish a claim to any part of the original discovery as Professor Marey seems to think.

In the latter part of 1866 and the early part of 1867, there was, as indicated, a great pressure of work at the museum and also in making dissections and preparations in connexion with the examinations of the Royal College of Surgeons of England, and in order to overtake it three medical students were temporarily employed. I showed them how to inject with liquid plaster-of-Paris and to mount dissections in coloured plaster-of-Paris run into the bottom of flat glass jars and troughs containing spirit and covered with glass tops, but I did not explain to them how to make hot-water dissections as practised by myself and subsequently by my assistant William Pearson. Mr. Moseley was the best of the temporary helps. He did some very good work, but his dissections presented a bleached, soft, sickly appearance from his having soaked them in acids. Two of his best specimens are to be seen in Room I. of the Hunterian Museum. They bear numbers 165 and 168 (nerves, &c., of face) in the museum "Catalogue of Dissections and Models illustrating Normal Human Anatomy." The following notice of the dissections prepared for the examinations of the College appeared in THE LANCET<sup>8</sup>:-

*Anatomical Preparations at the College of Surgeons.*

Under the above heading in THE LANCET of the 13th of October we gave an account of the preparations which have been specially dissected for examination purposes at the College, and regret to find that we did scant justice to the original projector of the method of preserving these dissections—Dr. J. B. Pettigrew, the able assistant in the College museum. As our notice excited considerable attention among those members of the profession engaged in teaching anatomy, we may state that the preparations were begun by Dr. Pettigrew in 1863, and have been more or less in progress ever since; and that the assistance of the present prospector (Mr. Moseley) has only been called in during the last few months, owing to Dr. Pettigrew's other engagements. Those who have examined that gentleman's splendid dissections of the muscles preserved in the museum, and exhibited at the annual election last summer, will fully understand what an able and painstaking dissector is Dr. Pettigrew. The method of employing plaster-of-Paris to fill hollow viscera is well seen in the elaborate series of dissections of the human bladder made by Dr. Pettigrew, and now added to the Hunterian Museum; and his system of throwing dissections into relief by mounting them in coloured plaster, pursued in the preparations for examination, is well worthy of imitation. The best colouring-matter is found to be ultramarine, the beautiful blue of which forms a capital contrast to the partially whitened tissues. This is added to the water to be mixed with the plaster-of-Paris, which is made sufficiently thin to flow easily around the dissection placed in a shallow pan. The plaster sets almost immediately, and may be kept in spirit for any length of time without becoming discoloured. The edge of the pan having been previously ground, a plate of glass fits closely upon it, and prevents any but insignificant evaporation.

The following appeared in the *Medical Times and Gazette*<sup>9</sup>:-

*The Anatomical Preparations at the College of Surgeons (London).*

We had recently an opportunity of examining the dissections

<sup>8</sup> Comptes Rendus, May 16th, 1870, p. 1093.

<sup>9</sup> THE LANCET, Dec. 8th, 1866, p. 640.

<sup>7</sup> Medical Times and Gazette, Jan. 26th, 1867.

submitted to the candidates for the primary examination, and anything more beautiful and better calculated to test the accuracy of anatomical knowledge and teaching, we have never seen. The recent specimens were very well and plainly got out; but what were formerly termed "pickles" were masterpieces of workmanship—none of the miserable ancient preparations which we remember to have seen at one time, and which would take a conjuror to say what they were, far less a nervous examinee. The specimens are in many cases injected, of very brilliant colours, and the nerves, tendons, fasciæ, &c., most carefully cleaned and whitened.

Students seem to have a terrible bugbear in what is termed an "out-of-the-way section," or a "window," or a "side view," but these should be always, as far as possible, shown them by their teachers, or they should be taught more "topographically" so as to know and recognise any tissue or structure from whatever point of view shown them. It is not to be supposed that every section can be shown in the dissecting-room, but this might be done from time to time on a "class subject." The preparations to which we allude are set in moulds of plaster-of-Paris; these are sunk in flat pans and a sheet of glass over all. Indeed, the array of preparations we saw would, in our estimation, give a student courage rather than dismay him, from the plain and evident manner in which the different structures are displayed. The credit of these dissections is due to Dr. Pettigrew and Mr. Moseley.

It will be seen from the foregoing that as a matter of fact Mr. Moseley had no part either in the discovery of the liquid plaster-of-Paris method of injecting or in the mounting of the dissections in coloured liquid plaster-of-Paris run into the bottom of flat glass jars, containing spirit and covered with glass lids.

Toward the end of 1867 my eyesight becoming impaired, and my health generally failing, I resolved to resign my appointment at the Hunterian Museum. The President and Council of the Royal College of Surgeons of England point-blank refused to let me go and would not accept my resignation. They said, "We will give you a three or six months' holiday and keep your place open." I, however, felt the continuous strain inseparable from my peculiar mode of dissection, and the confinement of London were too much for me, and resigned unconditionally. The following sentence in THE LANCET<sup>2</sup> chronicled the event:—

The magnificent series of dissections with which Dr. Pettigrew has enriched the College of Surgeons has been more than once noticed in these columns, and our readers, whether professed anatomists or not, must regret the suspension of the priceless labours of the "best dissector of the day," as a well-known London teacher of anatomy termed him.

Before severing my five years' connexion with the Hunterian Museum of the Royal College of Surgeons of England I wrote out a detailed account of all my hot-water and other methods of dissecting and preparation-making, my mode of injecting with liquid plaster-of-Paris and other cold materials, and my plan of mounting dissections in flat glass jars, troughs, capsules, &c., into which coloured liquid plaster-of-Paris had been run and which contained spirit and were covered with glass lids, my object being to place it in the hands of Mr. W. H. Flower, the curator, who was totally ignorant of my hot-water and other contrivances for making finished dissections. I intended the detailed account in question as an heirloom to my successors for their instruction and guidance in the difficult art of preparation-making in connexion with the higher anatomy. My assistant, William Pearson, interposed with the words, "Oh, sir, if you please, don't do that; your so doing will not benefit you and will utterly ruin my prospects of preferment at the museum." This had not occurred to me, and, as Pearson had been a good servant, I tore up the document without in the least desiring to conceal my methods then or subsequently. This happened some 33 years ago, and during the greater part of that long period William Pearson has been engaged in extending according to my methods the great series of human and comparative anatomy dissections, injections, casts, &c., which I designed and a considerable number of which I executed. This superb collection of hot-water dissections, liquid plaster-of-Paris injections, casts, &c., are, for the most part, now fittingly housed by the Royal College of Surgeons of England in a large new museum adjoining and opening into the original Hunterian Museum. The work done by William Pearson after I retired from the museum and the position now occupied by him in great measure justify my action in his favour; still I have always had it on my mind to explain the situation for the sake of a future race of anatomists. William Pearson has now had ample innings, and the time has arrived when everything should be fully and fairly explained. I did not originally, neither do I now, attach much importance to my hot-water and other methods of dissecting, injecting, &c., although I am bound to admit that their discovery involved much close

and consecutive thinking and planning, and a large number of experiments extending over several years.

The present communication on anatomical dissection, injection, and preparation-making as devised and practised by me at the University of Edinburgh and at the Hunterian Museum of the Royal College of Surgeons of England would assuredly never have been written but for the importunity of friends, among whom may be mentioned Mr. Thomas Bryant, late President of the College. These friends represented to me that the methods by which such splendid results had been achieved would be lost if I did not come to the rescue. They further urged that it was due to myself to explain the situation, especially as questions had been raised as to the real author of the great series of human and comparative anatomy dissections, casts, and injections referred to. I felt that there was force in the arguments employed, and as I had no wish to conceal anything by which the fascinating studies of anatomy and physiology could be advanced I have given, as far as my recollection serves, an exact account of the circumstances under which the various forms of dissecting and injecting, making of casts, &c., practised by me were devised and carried out. The foregoing, I doubt not, will be duly endorsed by William Pearson, who still piles his avocation as dissector, injector, and preparation-maker at the Hunterian Museum of the Royal College of Surgeons of England.

Some time ago I had my attention directed to a notice in the *British Medical Journal*<sup>3</sup> to which it may be well if, in conclusion, I direct attention. The notice is wholly misleading, as everyone who reads this communication will readily perceive. In the notice referred to, which I quote below, Sir William H. Flower is bracketed with me as having developed the talent of William Pearson as a dissector, which is, of course, absurd. He is further credited with having directed Pearson in the preparation of the great series of human and comparative anatomy dissections (muscles, ligaments, blood-vessels, and nerves), which series, as already explained, I not only designed, but a large number of which I actually dissected with my own hands, and everyone of which has been dissected by my hot-water and other methods, these methods never having been known to Sir William Flower. I am also represented as a student inferentially learning my anatomy at the museum and the College, while in reality I was a duly qualified Doctor of Medicine of the University of Edinburgh before I went to London and before I made the acquaintance of either the museum or the College. The notice in question is as follows:—

Amongst the duly appointed students who were termed "assistants in the museum," was Professor Bell Pettigrew, the first dissector of modern high-class permanent anatomical preparations. His work, demonstrating the muscular apparatus of the heart, stomach, and bladder, stands in the museum as a monument. Flower and Pettigrew developed the talents of the prospector to the College, Mr. Pearson, a true artist in dissection. Under the conservator's directions he prepared the fine series of spirit preparations illustrating human and comparative anatomy which is so much admired by all visitors to the museum. The late Lord Tennyson, hardly an enthusiast about modern science, remarked, when paying a visit to the museum twenty years ago, that he had never imagined how so grim a subject as anatomy could be made so beautiful.

## ABOUT ALKAPTONURIA.<sup>1</sup>

By ARCHIBALD E. GARROD, M.A., M.D. OXON.,

PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET; MEDICAL REGISTRAR, ST. BARTHOLOMEW'S HOSPITAL.

IN a paper read before the Royal Medical and Chirurgical Society in 1899 I gave the results of the examination of the urine in five cases of alkaptonuria not previously recorded and a summary of the then state of our knowledge of this rare and interesting urinary abnormality. The object of the present communication is to call attention to certain facts and to record some observations which tend to throw fresh light upon its nature and causation.

### 1. THE RELATION OF ALKAPTONURIA TO CONSANGUINITY OF PARENTS.

That alkaptonuria may be met with in several members of a family was first pointed out by Kirk in 1886, and of the

<sup>2</sup> Brit. Med. Jour. (Queen's Commemoration Number), June 19th, 1897, p. 1552.

<sup>1</sup> A paper read before the Royal Medical and Chirurgical Society on Nov. 26th, 1901.

cases since recorded a considerable number have served to emphasise this fact. However, although brothers and sisters share this peculiarity, there is, as yet, no known instance of its transmission from one generation to another, nor is anything known as to the urine of children of alkaptonuric individuals. On the other hand, I am able to bring forward evidence which seems to point, in no uncertain manner, to a very special liability of alkaptonuria to occur in the children of first cousins. The information available relates to four families, including no less than 11 alkaptonuric members, or more than a quarter of the recorded examples of the condition.

I have recently learnt that the parents of my own patient, and of an infant brother born in the present year, who also is alkaptonuric, are first cousins, their mothers being sisters. Again, in the notes which were kindly furnished to me by Dr. F. W. Pavy of a family of 14 referred to in my previous paper, of whom four were alkaptonuric, it is mentioned that in this instance also the parents were first cousins. I am also greatly indebted to Dr. Robert Kirk for kindly making inquiries from the father of the three children whose cases were so thoroughly investigated by him some years ago—inquiries which brought to light the fact that their parents also were first cousins, the children of sisters. Dr. Kirk adds that the mother is dead, that the father has married again, and that his only child by his second wife, who is not a blood relation, is not alkaptonuric. Against this may be set the fact that the parents of the patient studied by Dr. Walter Smith in 1882, and of a younger brother whose urine I examined, were not blood relations.

The children of first cousins form so small a section of the community, and the number of alkaptonuric persons is so very small, that the association in no less than three out of four families can hardly be ascribed to chance, and further evidence bearing upon this point would be of great interest. In a recent paper by Erich Meyer<sup>2</sup> it is mentioned that the parents of his patient were related but the exact degree of relationship is not stated. Elsewhere the literature is silent upon this matter, a silence which counts for little, seeing that the information is not usually forthcoming unless asked for, as Dr. Kirk's experience and my own show. There are some indications that the younger members of a family are more liable than the older ones. Thus the alkaptonuric members of the family observed by Dr. Pavy were the ninth, eleventh, thirteenth, and fourteenth. My own patient and his alkaptonuric brother are the fourth and fifth children, and in the family observed by Dr. Kirk, the second, third, and fourth children showed the peculiarity.

The facts here brought forward lend support to the view that alkaptonuria is what may be described as a "freak" of metabolism, a chemical abnormality more or less analogous to structural malformations. They can hardly be reconciled with the theory that it results from a special form of infection of the alimentary canal. There is here no question of the intensification of family tendencies by intermarriage, for in no instance were the parents themselves alkaptonuric, and, as has been already mentioned, there is, up to now, no recorded instance of alkaptonuria in two generations of a family.

## 2. THE ONSET OF ALKAPTONURIA IN A NEW-BORN INFANT.

That alkaptonuria may persist through life without any apparent detriment to health and may date from earliest infancy has long been known, but there have hitherto been wanting observations bearing upon the exact period of its onset in congenital cases. This deficiency I am now able to supply to some extent.

The fifth child (a male) of the parents of my patient, and the second alkaptonuric member of the family, was born at 6 A.M. on March 1st, 1901. The mother was tended after her confinement by a district nurse, and both she and the nurse were fully alive to the possibility that the child might show the same peculiarity as his elder brother and were on the look-out for any indication that this was the case. The information which follows was given to me by the nurse within a few days of the infant's birth.

During the first day of life the child was put to the breast and was given a teaspoonful of butter and sugar, according to a practice common among the poorer classes. The napkins

were first changed at 9 P.M. on the 1st (when the child was 15 hours old) and it was specially noted that although urine had been passed freely there was no indication whatever of the staining which was so familiar in the case of the elder child. When the napkins were next changed, at 11 A.M. on the 2nd, the nurse noticed a slight staining and at 10.30 A.M. on the 3rd (52 hours after birth), and on all subsequent occasions, the napkins were deeply stained in the characteristic manner. The child had been put to the breast during the previous night and on the morning of the 3rd the nurse found that the mother's breasts contained milk, but were not full. The mother was not conscious of the "draught" until a later hour on the 3rd. Some urine collected from the eighth to the eleventh days of life reduced Fehling's solution and had all the ordinary properties of alkapton urine. The above facts, carefully recorded by one who was wholly without bias in favour of any theory of the nature of alkaptonuria, or knowledge of the questions at issue, nevertheless agree completely with what was to be expected on theoretical grounds.

The evidence available points to tyrosin, formed as a product of pancreatic digestion, as the parent substance of the homogentisic acid which imparts to alkapton urine its peculiar properties, and we should anticipate that the peculiarity of metabolism would first manifest itself after the entry of proteid food into the alimentary canal. As, moreover, the human tissues appear to be able to destroy a certain amount of homogentisic acid, this substance would not be excreted until this destructive power was overtaken. The observations on the new-born infant appear to be most readily explained on the assumption that the development of alkaptonuria resulted from feeding, but as the child was suckled, the exact time when food began to enter the alimentary canal cannot be fixed with any degree of certainty. When the elder child was first seen by me the mother stated that in his case her attention had been first called to the staining of the napkins on the day after his birth, thus in both instances the condition may be fairly described as congenital. In this connexion a most interesting case recently recorded by Winternitz<sup>3</sup> may be referred to. He had under observation a family of three alkaptonuric children, a boy aged 12 years, a girl aged 10 years, and another girl aged six years. The mother, who stated that the urine of the two elder children had stained the napkins from the first day after their birth, added that this had only been the case with the youngest child during the last year. This recalls Maguire's case in which the condition was said to have dated from the age of 27 years, the intermittent case recorded by Stange, and the still more puzzling cases of temporary alkaptonuria.

## 3. THE RELATION IN TIME OF THE OUTPUT OF HOMOGENTISIC ACID TO A PROTEID MEAL.

In a quite recent paper, which embodies many other observations of much interest, Mittelbach<sup>4</sup> gives the results of the estimation of the reducing power of the samples of urine passed by his patient at different periods of a day of 12 hours, which show the maximum excretion of homogentisic acid following within the first two or three hours after the chief meal, and not, as is the case with the ordinary products of metabolism, appearing in the urine in the largest quantities from five to seven hours after a meal. This result was so unexpected and seemed so difficult to reconcile with the view that tyrosin is the parent substance of homogentisic acid in these cases that further observations upon the point appeared desirable. I accordingly estimated the reducing power of the several specimens of urine passed by my patient (aged four years) during three periods of 24 hours each, and the results are embodied in the following tables. The estimations were made by Baumann's silver method, but owing to the small bulk of many of the specimens five cubic centimetres instead of 10 cubic centimetres of urine were used for each testing, and it was not attempted to secure estimations within 0.5 cubic centimetre of  $\frac{1}{10}$  silver nitrate solution.

The urine of the child is always rich in homogentisic acid, and the daily output approaches that of some of the adult patients. At the age of three years the average daily excretion during seven days was 2.6 grammes of homogentisic acid, and that of Meyer's patient of about the same age was 3.24. The figures for adults vary between three and six grammes per 24 hours.

<sup>2</sup> Deutsches Archiv für Klinische Medizin, 1901, Band lxx., p. 443.

<sup>3</sup> Münchener Medizinische Wochenschrift, 1899, xlv., p. 798.

<sup>4</sup> Deutsche Archiv für Klinische Medizin, Band lxxi., p. 50.

*Day 1.*—On this day the patient was taking the ordinary hospital diet for children of his age. The first meal was at 5 A.M.; dinner, consisting of minced meat and rice pudding, at 12 noon; tea, including an egg, at 3.45 P.M.; supper, consisting of milk and bread-and-butter, at 6 P.M.

TABLE I.

Hour of day.	Quantity of urine passed.	No. of c.c. $\frac{1}{10}$ silver nitrate solution reduced by 5 c.c. of urine.	No. of c.c. $\frac{1}{10}$ silver solution reducible by total urine.	Corresponding to a reducing power per hour of:—
	Cubic centimetres.			Cubic centimetres.
A.M. 9.30	60	10.0	120.0	—
P.M. 12.30	53	10.5	111.3	37.0
4.0	46	13.0	119.6	34.2
5.55	27	16.0	86.4	45.0
9.30	55	11.0	121.0	33.7
A.M. 12.45	35	9.0	63.0	19.3
3.45	28	5.5	30.8	10.2
6.0	25	5.5	27.5	12.2
Totals	329	—	679.6*	—

\* Corresponding to 2.79 grammes of homogentisic acid.

Here the maximum excretion per hour was between 4 P.M. and 5.55 P.M.—i.e., from four to six hours after the chief meal, but the results are somewhat obscured by the overlapping of the effects of several meals rich in proteid.

*Day 2.*—On this day the diet was so arranged that the articles richest in proteids were given at the chief meal, which, as before, was at 12 noon, and hourly specimens of urine were fortunately obtained from 4 P.M. to 9 P.M. inclusive. It is clearly seen that although there is a conspicuous rise in the specimen passed at 1.30 P.M. the maximum excretion was between 3 P.M. and 7 P.M.

TABLE II.

Hour of day.	Quantity of urine passed.	No. of c.c. $\frac{1}{10}$ silver nitrate solution reduced by 5 c.c. of urine.	No. of c.c. $\frac{1}{10}$ silver solution reducible by total urine.	Corresponding to a reducing power per hour of:—
	Cubic centimetres.			Cubic centimetres.
A.M. 9.55	26	6.0	31.2	—
11.40	43	5.5	47.3	27.0
P.M. 1.30	25	16.0	80.0	43.6
2.50	30	10.0	60.0	45.0
4.0	30	14.5	87.0	84.5
5.0	32	15.0	96.0	96.0
6.0	20	15.0	60.0	60.0
7.0	31	14.0	16.8	86.8
8.0	25	10.0	50.0	50.0
9.0	24	8.5	40.8	40.8
10.55	65	3.0	39.0	20.3
A.M. 12.55	27	6.0	32.4	16.2
2.0	5	6.0 or 7.0	8.4 (?)	7.7
4.40	16	7.0	22.4	8.4
8.0	41	8.0	65.6	19.6
Totals	440	—	806.9*	—

\* Corresponding to 3.327 grammes of homogentisic acid.

The total excretion of homogentisic acid was increased, owing to some increase of the proteid food, partly in the form of plasmon. The effect of the early breakfast at 5 A.M. is still clearly marked.

*Day 3.*—On this day the meal richest in proteid was given at 9 A.M. instead of at noon, and the maximum output

of reducing substance per hour was also three hours earlier—viz., between 12.15 P.M. and 4.25 P.M. The rise during the hours immediately following the meal is again very noticeable. The total reducing power of the 24 hours' urine was on this day somewhat larger still.

TABLE III.

Hour of day.	Quantity of urine passed.	No. of c.c. $\frac{1}{10}$ silver nitrate solution reduced by 5 c.c. of urine.	No. of c.c. $\frac{1}{10}$ silver solution reducible by total urine.	Corresponding to a reducing power per hour of:—
	Cubic centimetres.			Cubic centimetres.
A.M. 6.0	32	6.0	38.4	—
8.0	30	(?)	(?)	—
9.25	26	5.0	28.0	18.3
11.15	46	8.0	73.6	40.1
P.M. 12.15	29	9.0	52.2	52.2
4.25	99	14.0	277.2	66.5
6.0	46	8.5	78.2	49.3
9.30	95	6.5	123.5	35.3
11.45	31	7.5	46.5	20.6
A.M. 2.50	35	6.0	42.0	13.6
4.45	41	4.5	36.9	19.2
Total	510	—	—	—

It will be at once apparent that these results do not bear out Mittelbach's observation that the reducing power of the urine reaches its maximum within two or three hours of a proteid meal, but show, on the other hand, that in the case of my patient, although such a meal is quickly followed by a much increased excretion of homogentisic acid, a still larger amount is excreted during the second period of four hours than during the four hours immediately following the meal. In a word, they tend to support the view that the change from tyrosin to homogentisic acid takes place in the tissues after the absorption of the former, rather than the alternative view that the change in question is brought about in the alimentary canal.

Chandos-street, W.

### A CASE OF "MYXASTHENIA," WITH REMARKS ON KINDRED AFFECTIONS.

By WALKER OVEREND, M.A., M.D. OXON.,

LATE SENIOR PHYSICIAN TO THE TOTTENHAM HOSPITAL AND  
RADCLIFFE TRAVELLING FELLOW, OXFORD.

THE patient was a woman, aged 44 years. As regards her family history, her father had died from heart disease with dropsy at the age of 65 years. There was no history of gout in his case, but he had been a great sufferer from dyspepsia with excessive flatulence. Her mother died early from chronic phthisis. The patient's individual history was as follows. She had been in a feeble and unsatisfactory state of health for the previous 20 years. As a child she had had diphtheria and a severe attack of pertussis. She was considered a delicate and anæmic girl. After her first confinement, at the age of 24 years, she suffered from descent of the womb with ulceration of the neck and was kept on her back for weeks together. At one time she had an attack of acute gastritis when even small quantities of liquid were not retained. The late Sir Andrew Clark, who regarded the condition as due to a vicious state of the mucous membranes, recommended small solid meals, and she commenced to improve. Of late years she had consulted several eminent medical men. One of these physicians, probably assuming the presence of a gouty diathesis, advised the Salisbury regimen of beef cakes and hot water, which she faithfully followed for 12 months with no obvious advantage. Another suggested massage and over-feeding, but this did not improve matters. It may not have been thoroughly carried out.

On examination the patient was found to be a tall woman, with light brown hair, pale blue and tired-looking eyes, and a blonde and fairly healthy complexion. She complained of dryness of the tongue and throat, of pains after food, and of a disinclination to eat on account of flatulence. The parched feeling in the throat often rendered her sleep disturbed and unrefreshing. The tongue was red, dry, glazed looking, and much fissured transversely. The cavity of the pharynx appeared to be large. On opening the mouth the palate was seen to be drawn up high, giving a complete view without depressing the tongue. The tonsils were small. The whole of the mucous membrane was dry, pale, and shiny. There were several streaks much paler than the rest, which, the patient said, became pink towards night. Immediately below the left tonsil there were two small granulations, each of about the size of a pea, which had given her much trouble. They swelled at times and caused pricking pains below the angle of the jaw. There were several sensitive papillæ at the root of the tongue. She had declined treatment by the galvano-cautery. There were no varicose veins. The gastric pain came on about two hours after food and was at its worst at midnight. At that time it shot through the body to the back and was only relieved by the eructation of wind. She complained of rheumatic pains during the night in the elbows and wrists. During the day she suffered from heartburn. Meat was followed by less pain than milk. The bowels were always confined and the motions were difficult, hard, and lumpy; it was often necessary to use an injection. The urine was normal. To allay the pain in the pharynx menthol spray had been employed. For the dryness of the mouth, which was worse at night, she had found effervescing tabloids of belladonna and cubebæ very useful. Powders of bismuth and soda had prevented the gastric pain and sulphate of soda combined with carbonate relieved the constipation. I prescribed compound tabloids of mucin (mucin with sodium bicarbonate), two to be taken before and two after a meal, the throat to be swabbed or painted at bedtime with a solution prepared by dissolving one tabloid of mucin containing menthol in a wineglassful of warm lime-water<sup>1</sup> and the powders of bismuth and sodium sulphate to be continued.

The term "*myxasthenia*."—The condition forcibly reminds one of the class of cases described by Mr. Stuart-Low<sup>2</sup> under the names of "desiccation," "irritation," and "ulceration of the mucous membranes." Since no designation has hitherto been proposed to describe this constitutional defect, I venture to suggest that of "*myxasthenia*," which has the advantage of bringing into line with it the closely allied but somewhat undefined condition of neurasthenia. A more correct term would be *myxanadenia* (α, not, and αδην, a gland), but this is an awkward word. The myxasthenic state would consequently imply atrophic changes in the mucous or goblet-celled epithelium.

*Muciparous glands and mucin.*—Mr. Stuart-Low<sup>3</sup> describes the situation of these glands in the nasal, buccal, and pharyngeal cavities. He asserts that they are so numerous and productive that one must conclude a proportion of the mucus is utilised, after swallowing, for the protection of the pyloric region of the stomach, which, in the sitting and standing postures, becomes the most dependent part of that organ. The mucous membrane of the small intestine contains cells with striped free borders, but goblet cells are few and far between. Its function must therefore be largely absorptive in character. The large intestine, again, contains vast numbers of goblet cells secreting a plentiful supply of mucus, which is used for protective and lubricating purposes. The respiratory tract is normally covered with a thin stratum of mucus, also derived from goblet cells. The latter must be distributed throughout the respiratory tract, certainly as far as the finer ramifications of the bronchi. Mucin itself may be manufactured<sup>4</sup> from the salivary glands and the sinews of the leg of the ox, also from ox-bile. The addition of chloride of sodium renders it more tenacious, a fact of some significance with regard to the precipitation of biurates in synovial fluids. The molecule appears to be complex, as under certain circumstances it splits up into a carbohydrate and a nucleo-albumin.<sup>5</sup>

*The nerves of mucous membranes.*—The vital importance of

a normal supply of mucus for the general requirements of the body and the particular necessities of mucous membranes is not sufficiently realised." In fishes, where a thin layer of cutaneous and protective mucus is an urgent need, the secretion of this material is largely dependent upon the integrity of the vagus nerve. The latter supplies the length of the lateral line, a structure which is an important mucus-secreting organ. We are ignorant of the exact part which nerve influences play in the production of mucus in the higher animals. The vagus and sympathetic supply the pharyngeal, gastric, and small intestinal areas. It is possible that the vagus likewise sends twigs to the large bowel by way of the solar plexuses, since several physiologists affirm that stimulation of the nerve elicits movements of this part of the bowel as well as of the small intestine. A diminished or an increased secretion of mucus may be determined by trophic or irritative degenerations (neuroses) occurring within the vagal centres or at points intermediate along the course of the nerves between the central nervous system and the terminals within the mucous membranes.

*Necessity of a nomenclature.*—It seems advisable to adopt a series of new names in order to fix our ideas more definitely and to serve as a guide for future investigations. At the present time, however, we are able to refer to a few general varieties only, which new facts may considerably extend and amplify. We can conceive of quantitative mucous changes in the direction of excess and of diminution, also of a condition where there is a more profound and qualitative alteration in which the secretion may contain little mucin, but a large proportion of some other material such as nucleo-albumin or fat. The term "*orthomyxia*" may be used to express a perfectly sound and healthy state of the mucous secretion. Quantitative changes may be termed "*metamyxia*," and we may refer to them as a "*metamucous*" state. "*Metamucous*" is more mobile and acceptable than "*metamyxic*." Where the change is in excess the terms "*hypermyxia*" and "*hypermucous*" would be suitable, and would contrast with the converse condition, which would be "*hypomyxia*" and "*hypomucous*." When there is a profound allotropic (excessive viscosity) or a qualitative modification, the terms "*paramyxia*" and "*paramucous*" would be applicable. Under this division may be included the production of extremely viscid mucus, or of membranes, such as occurs in glairy or membranous enteritis and the like.<sup>6</sup>

*Application of the terminology.*—Among bronchial affections whooping-cough is remarkable. In this disease the whole of the bronchial mucous membrane appears to be involved, and it is often accompanied by similar changes in the naso-pharyngeal, gastric, and colic areas. There may be increased production of mucus throughout these regions. Pertussis probably arises from an irritation (originating from the presence of toxins produced by the growth and multiplication of a specific bacillus) which implicates, in addition to cortical and emotional centres, the medullary origin and the peripheral terminations of the vagus. It is therefore a state of general hypermyxia with, as subdivisions, hypermyxia naso-pharyngea, hypermyxia bronchialis, hypermyxia gastrica, and hypermyxia colica. The presence of the excessive amount of mucus within the naso-pharynx, the bronchi, and the stomach is one of the factors which excites the paroxysms of cough and vomiting,<sup>7</sup> and the occasionally brilliant results of naso-pharyngeal douching and spraying,<sup>8</sup> of emetics and laxatives,<sup>9</sup> become comprehensible. Hypermyxia colica has been already described as "*mucous disease of the bowels*" by Dr. Eustace Smith. It is quite possible that a hypomucous or paramucous condition may sometimes follow, due either to exhaustion or to a disordered activity of nerve influences, which may prove the starting-point of atrophic rhinitis, pharyngitis, gastritis, or asthma. A paramucous variety probably exists in some

<sup>6</sup> "*Myxotic*," as a general term, might be used to correspond with neurotic.

<sup>7</sup> All conditions with exudations consisting of fibrin are excluded.

<sup>8</sup> The virus may also affect the medullary centres of cough and vomiting and the rima.

<sup>9</sup> Syringing of the external auditory meatus can act only in the way of reflex inhibition.

<sup>10</sup> With regard to laxatives these are certainly indicated where there seems to be an excess of gastric mucus. I have found of the greatest value a prescription containing liquor bismuthi, combined with minimal doses of the tinctures of podophyllin, jalap, rhubarb, with cocaine, carbolic acid, and aromatic cascara, taken four times a day, no free purgation being allowed. In this connexion Dr. Eustace Smith (Albutt's System of Medicine, vol. ii., p. 243) remarks that an acute watery diarrhoea may suppress all laryngeal and pulmonary symptoms. It looks as if the virus (or its toxins) was manufactured chiefly within the bowel, or had selected as its habitat the portal circulation.

<sup>1</sup> Mr. W. Stuart-Low: Mucin in Desiccation, Irritation, and Ulceration of Mucous Membranes, THE LANCET, Oct. 12th, 1901, p. 972.

<sup>2</sup> Loc. cit.

<sup>3</sup> Loc. cit.

<sup>4</sup> Burdon-Sanderson: Handbook to the Physiological Laboratory, p. 444.

<sup>5</sup> For further details consult Mr. Stuart-Low's paper.

forms of the rare affection known as "plastic bronchitis." The plugs are quite soluble in lime-water (Wilson Fox). According to the old theory of Beau<sup>11</sup> asthma is a bronchial catarrh "with a highly viscid sputum the dislodgment of which into the larger tubes terminates the attack"; in other words, it is probably in some instances a paramucous condition dependent upon trophic or irritative changes occurring in the pulmonary vagus or its centre. As an example of the hypomucous variety may be mentioned dry bronchitis of the gouty diathesis (?). Naso-pharyngeal conditions of hypomyxia are seen in atrophic rhinitis and pharyngitis sicca. I have just referred to hypermyxia naso-pharyngea. Paramucous conditions do not appear to occur. The affection of the stomach represented by the term "desiccation of mucous membranes"<sup>12</sup> corresponds to hypomyxia gastrica. It might also be termed "myxanadenia," "myxatrophia," or "myxasthenia gastrica." Such a condition is the forerunner of gastric pain and dyspepsia, erosions, and ulceration. Some varieties of irritative gastritis, witness that associated with pertussis, and some forms of chronic gastritis, may be pure examples of hypermyxia gastrica. The problematical occurrence of membranous gastritis serves to illustrate the term "paramyxia gastrica." With regard to the large bowel conditions of metamyxia in the direction of excess occur as already stated in the disease called "mucous disease of the bowel." Under this terminology it would be classified as "hypermyxia colica."<sup>13</sup> The converse condition is seen in many obstinate cases of constipation, due without doubt to a diminished production of mucin and probably to a myxatrophic condition of the lining membrane of the colon. I could name it "hypomyxia colica." The disease known as "glairy enteritis," "membranous enteritis," or "catarrhal enteritis," in which the membranes consist of inspissated mucus, of nuclealbumin, or even of fat, is obviously a paramucous condition—namely, "paramyxia colica." Trophic or irritative degenerations of the vagus may play a part in its origin.

*Relations to gout, diabetes, and cholelithiasis.*—Abnormal dryness of mucous membranes may occasionally be an accompaniment of the gouty and diabetic diatheses. The entire pathology of gout is not exhausted in the idea of uric acid, nor is that of diabetes altogether embodied in that of sugar, since we know that these two substances are merely the outward manifestations of a profound disturbance of metabolic activity the elucidation of which is still reserved. The presence of mucin in abundance within the synovial fluid where uric acid deposits most frequently occur, the existence of a carbohydrate moiety in the mucin molecule, and the diminution of saliva and desiccated tongue of diabetic patients are suggestive facts which may lead to the discovery of interesting relationships.

Clacton-on-Sea.

## CARCINOMA MAMMÆ: ON THE NECESSITY FOR TAKING STEPS DURING THE OPERATION FOR REMOVAL TO OBVIATE THE RISK OF SUBSEQUENT DISSEMINATION.

By CECIL H. LEAF, M.A., M.B. CANTAB., F.R.C.S. ENG.,  
ASSISTANT SURGEON TO THE CANCER HOSPITAL, BROMPTON, S.W.,  
AND TO THE GORDON HOSPITAL FOR FISTULA, ETC.

In this paper I wish to call attention to a subject which I believe to be important—viz., the necessity of occluding as far as possible the emergent lymphatics and veins of the breast when operating for cancer of that organ. During the last few years new operations, of which I need only mention Halsted's, have been devised whereby we remove in a much more thorough and systematic manner than formerly any structures which we think may possibly be invaded by

the growth. In spite, however, of the advances which have been made three facts remain. In the first place, it must be admitted that, no matter how careful the surgeon may be, the mere fact of his operating in the neighbourhood of a malignant growth renders infection of some part of the wound at least possible; secondly, that though the surgeon may be morally certain that he has removed wide of the disease he cannot be absolutely so. In the third place, during the operation innumerable lymphatics and small veins are cut across. Without in any way meaning to imply that infection of the wound is a usual occurrence or that some part of the growth is invariably left behind, I do maintain that the possible risk of dissemination which may result from either of these contingencies taking place should always be borne in mind and as far as possible provided against at the time of the first operation. I believe that the chance of subsequent dissemination taking place may be much lessened, if not entirely prevented, by occluding the mouths of those lymphatics and veins which drain the mamma and which have necessarily been cut through during removal of the organ. I need only mention two cases to show that after operations for removal of the breast extensive dissemination may occur.

CASE 1.—A woman, aged 42 years, was admitted into the Cancer Hospital, Brompton, S.W. Three years previously she had noticed a lump in her left breast. This had grown and had eventually reached "the size of a child's head." The breast was removed in the country. The wound healed but always looked like "a scald." Two and a half years after the operation the whole of the left side began to get hard and the hardening process spread to the other breast which eventually completely disappeared. Small lumps of the size of a hempseed now began to appear on the skin on the right side and in the lower part of the abdomen. The patient lost the sight of her left eye and small lumps in the scalp now made their appearance. On admission the condition was as follows: the skin over the operation wound on the left side and that over the site of the right breast was tense, shiny, and hide-bound. There were seven little nodules over her right and three over the left temple, three in the middle line of the scalp, two in the right posterior triangle of the neck, two in the skin over the right supra-spinous fossa, two in a similar position on the left, three over the lower ribs on the right side, and one over the acromial end of the spine of the left scapula. 22 nodules were counted scattered over the abdomen. The inguinal glands on both sides were enlarged. In all, nearly 60 of these little nodules were present. There was atrophy of the left optic disc and ptosis, sometimes more sometimes less marked, of the left eyelid. Originally there were numerous nodules situated in the skin over the left scapula, but these had become replaced by the brawny hardness. The diagnosis I made of the condition was cancer en cuirasse, associated with multiple carcinomatosis of the skin and possibly of internal organs as well. The point, however, which I wish to bring out is this: that here we have a case of dissemination coming on after an operation. I look upon this case as one of infection by the blood-stream and I think infection took place at the time of operation.

The next case is a remarkable one and has been recorded by Dr. J. Ritchie and Dr. J. Purves Stewart.<sup>1</sup>

CASE 2.—A breast which was affected with scirrhus was removed with some of the axillary lymphatic glands from a woman, aged 47 years. Five years and eight months afterwards she had a severe attack of pain in the back and limbs. Nine years and three months after the operation she died from secondary carcinoma of the bones. This was proved microscopically. As Dr. Ritchie and Dr. Stewart state, the case is remarkable for the great length of time which elapsed between the operation and the first evidence of bone infection—namely, five years and eight months.

These and many other similar cases which might be quoted show conclusively that after operations general dissemination, occurring either early or late, is by no means of rare occurrence. This is not to be wondered at when, in view of the two contingencies mentioned above actually occurring, it is remembered that no steps whatever are taken to prevent it during the operation. Before, however, discussing the means which I would advocate it may be well to indicate in the briefest manner possible the most important routes taken by the lymphatic vessels and veins which run from and drain the mamma. 1. The

<sup>11</sup> Auld: The Pathology of Bronchial Affections, p. 86.

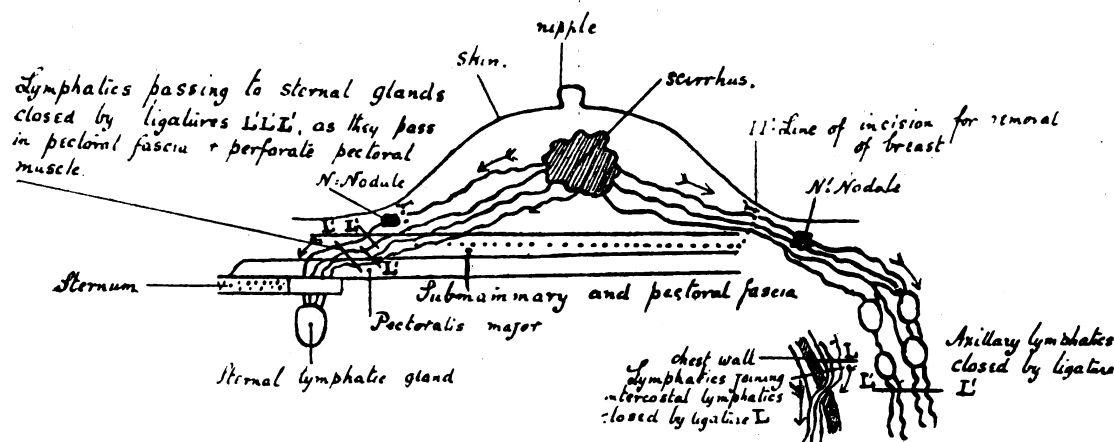
<sup>12</sup> Stuart-Low: loc. cit.

<sup>13</sup> The frequent occurrence of mucous degenerations of the bowel in the insane (asylum dysentery) where extensive trophic and degenerative lesions in the nerves and nerve-centres co-exist, is worthy of note (Dr. T. Clive Shaw, Brit. Med. Jour., Oct. 26th, 1901). The croupo-fibrinous exudations and deposits which occur in tropical dysentery do not concern us, since they are obviously due to severe inflammatory processes involving both mucosa and submucosa.

<sup>1</sup> Transactions of the Edinburgh Medico-Chirurgical Society.

lymphatics from the inner side of the breast accompany the perforating veins of the internal mammary; the emerging trunks run in the submammary and pectoral fascia, perforate the pectoralis major, and terminate in the sternal glands, the largest and most important of which are situated in the first, second, and third interspaces. In cases of carcinoma involving the inner portion of the breast these glands may be found affected. The gland in the second space may become so large that it may press upon and actually ulcerate into the left vena innominata or into the junction of the right and left vena innominata. 2. The greater number of lymphatics from the breast pass into a group of glands situated in the axillary fascia, thence the emerging trunks pass to a few small glands under the pectoralis minor muscle, and then make their way to a few glands situated immediately below the clavicle, whence they join glands in the subclavian triangle. The lymphatic vessels and glands in the axilla are imbedded in the axillary fascia and in a process of fascia, sometimes called the "suspensory ligament," which is part of a system known as the "clavipectoral fascia." The lymphatics in 1 and 2 are the most important and drain the greater part of the mamma. 3. The lymphatic glands underneath the pectoralis minor and a few small glands under the clavicle probably receive mammary lymphatics which pass through the substance of

by a Halsted's operation. Two or three differently curved pedicle needles should be handy. After the incisions round the breast have been made the skin is separated upwards and downwards. When the submammary and pectoral fasciæ are exposed pedicle needles armed with stoutish silk are passed through them, keeping as near as possible to the thoracic wall. On drawing each ligature tight the portion of mamma immediately lying over the strangled portion of fascia may be detached. The breast should not be removed until the fascia lying underneath has been ligatured. It is especially necessary to put ligatures at the upper and inner part of the submammary fascia, for in this way the majority of lymphatics and veins passing to the first, second, and third intercostal spaces will be occluded. As an additional precaution, especially if the case is a more advanced one, it is advisable to put two ligatures through the substance of the pectoralis major, one above the other and about one inch apart, at right angles to the course of these same lymphatics. In this way they, together with the veins passing from the breast to the anterior mediastinum, are occluded. When dealing with the axilla the axillary fascia should be well exposed and before it is cut away it should be ligatured, especially at the following places: (1) just to the inner side of the axillary vein; (2) as high up underneath the pectoralis minor as possible; and (3) where it becomes con-



the pectoralis major. 4. The lymphatics which lie over the serratus magnus follow the course of the intercostal veins. They are not, strictly speaking, lymphatics of the mamma, but in cases where the axilla is much involved by the growth extension may take place along this route, or if the axilla is cleared out infection may take place at this spot. 5. In a certain number of cases of carcinoma mammae it is found that the liver is the seat of secondary deposits. The exact path taken under these circumstances has not been accurately determined. When a breast is amputated and the axilla, we will say, cleared out innumerable lymphatics and vessels are cut across. What is the result? Here are these lymphatics ready with their open mouths to convey any malignant cells which may have been left behind or with which they may have been infected up to the superior mediastinum, *via* the neck, or to the anterior and posterior mediastinum by the sternal or intercostal route. Not only this, but the veins being cut across at the same time an easier and certainly more rapid route is at once opened up. No circumstances more favourable to general dissemination than this double route can well be imagined.

It has already been pointed out that the sternal lymphatics run in the sub-mammary and pectoral fascia before perforating the pectoralis major. The axillary lymphatics run in the axillary fascia and suspensory ligament. Roughly speaking, the lymphatics may be said to accompany the veins. Now, from their size and number it would obviously be impossible to occlude either the small veins or lymphatics separately. My suggestion is to effect their occlusion by strangling by a series of ligatures the fascia in which they run. This is done in the following way. A case of carcinoma has to be operated on where the growth has not yet, let us imagine, involved the pectoralis major but where the axillary glands are felt to be slightly enlarged—the patient is not strong enough to be able to stand the shock, such as is produced

tinuous with the fascia covering the serratus magnus. By ligaturing the fascia in the latter place we occlude those vessels which, running with the lateral cutaneous branches of the intercostal veins, pass on to the posterior mediastinum. In the figure, where the sternal, axillary, and intercostal lymphatics only are represented, and that in a purely diagrammatic manner, we will imagine that the breast has been removed through the incision I I' (the dotted line in the diagram); that a nodule of growth N has been left behind, or that the wound has been infected at this spot. If no steps have been taken to occlude the lymphatic vessels it is clear that this nodule will be quite free to extend itself in the direction of the sternal glands; if, on the other hand, these vessels have been occluded by passing two ligatures through the pectoralis major higher up (L' L' L' in diagram) at right angles to their course (and this can usually be done by pulling the skin to its most upward limit without the necessity of making a fresh incision) it is clear that extension in this dangerous direction would be prevented. Similarly if a nodule N' in the diagram is left in the axilla, or the wound in the axilla is infected at this point, extension up the neck is prevented by ligatures placed at right angles to that portion of the suspensory ligament running upwards underneath the pectoralis minor L' L' in the diagram. In the same way, by referring to the diagram, it will be seen that if the intercostal lymphatics are ligatured in the same manner the nodule cannot extend into the thorax laterally. This method of occluding lymphatics and veins can also be carried out in the more extensive operations such as Halsted's, but in these cases, of course, they will be occluded at places nearer to where they join the vessels of the neck and thorax. In considering the advisability of performing such extensive operations as Halsted's quite apart from the question of shock, to which a great deal of attention should be given, it must be remembered that the

larger the wound made in the operation the greater the surface over which infection may take place. If, however, the method here advocated is followed I do not believe that the last objection should be such a serious one. I have now used this method of occluding lymphatics and veins with a view of reducing to a minimum the subsequent dissemination in six cases. In five of these the presence of the ligatures in no way interfered with the healing of the wound or gave rise to any increased pain; in the sixth case, however, I must admit that I think that they were the cause of some supuration and sloughing which were noticed in the wound on the seventh day; but even here, where the operation was an extensive one, the supuration only lasted two days and I do not think the healing of the wound was retarded. One possible objection to their employment is that the operation is made a trifle longer. I sometimes use as many as from 10 to 15 ligatures. From what I have seen of the after-effects of vaginal hysterectomy for carcinoma of the cervix I believe general dissemination to be infinitely more rare in such cases than it is after breast operations. I cannot help thinking that the chief reason for this is that when hysterectomy is performed, prior to the actual cutting away of the uterus the broad ligaments are clamped and tied on either side, thus effectually occluding the chief lymphatics and veins coming from this organ and in this way minimising the risk of dissemination.

In conclusion I would state my belief that a "recurrent" nodule found in the neighbourhood of a scar after operation is not a very important thing in itself, but it is a most serious thing if the avenues along which it may extend have not previously been occluded, and I would again urge the importance of taking steps at the time of the first operation to prevent subsequent dissemination. Even if the method here suggested should not commend itself to those who may read this article I hope that the principle on which it is based may become more widely recognised and its importance more generally admitted.

Wimpole-street, W.

## A CASE OF LEAD-POISONING CAUSING INSANITY.

By W. STEWART STALKER, M.B., CH.B. GLASC.,  
ASSISTANT MEDICAL OFFICER, SURREY COUNTY LUNATIC ASYLUM,  
BROOKWOOD, WORKING.

SIR W. GOWERS'S address on the Metallic Poisons has opened up a subject to which more attention might be paid—i.e., the nervous phenomena accompanying certain toxic conditions—and in giving the following history of a case of lead-poisoning in which certain nervous symptoms were marked it is in the hope that it may be of interest and prove a help in the diagnosis of such cases, which too often are mistaken for other conditions. The case was one of peculiar interest, because the onset of the symptoms was so sudden that the disease was at first regarded as one of the acute specific fevers and for a time remained undiagnosed.

The patient, a plumber, aged 30 years, was admitted into the Surrey County Asylum on August 17th, 1901. For the history of the case previously to admission I am indebted to the patient's wife and I cannot be certain of its complete accuracy, but it is to the effect that on April 12th, 1901, the patient returned from work feeling chilly and having "pains all over him." By night time he was delirious and a medical man was called in on the following day who regarded the case as one of influenza and treated it accordingly. As the patient got worse a few days later another medical opinion was procured and this led to the disease being certified as typhoid fever and he was removed to an isolation hospital. After three weeks of isolation it was recognised that he was not suffering from typhoid fever and he was sent home, remaining there until his admission to the asylum. From the outset the mental symptoms were marked and the certificate on which he was admitted to the asylum stated that he suffered from delusions of persecution with hallucinations of sight and hearing. During all this period he had been wasting in a marked degree, and his condition on admission to the asylum was as follows. He was suffering from acute mania, being restless, noisy, and excited, and utterly incoherent. His mental state, in fact, very much simulated alcoholic mania. He was very emaciated, certain muscles and groups of muscles being

picked out. There was marked paralysis of his extensor muscles of the forearms and wrist-drop was very pronounced. He was unable to stand, and when held in the upright position his legs gave way under him and he tended to drop in a sitting posture. There was very evident tremor and this was most noticeable when he attempted any movement. There was no very marked increase in the knee-jerks and ankle clonus was absent. Anæmia was very pronounced and the face was wrinkled. On the gums there was an exceedingly well-defined blue line. The pulse was very slow and the arteries were rigid. No examination of the eyes could be made at this time as the patient was so restless, but later it was ascertained that there was a certain amount of optic atrophy.

Treatment was at once commenced, large doses of the bromide and iodide of potassium being given. As he refused everything in the way of food and drugs he had to be fed, and after a certain time there was evidence of gastric irritation, and raw beef-extract in small quantities was given every hour instead of the larger quantity of milk and beef-tea with which he was fed less frequently. The immediate result of the bromide was a slight abatement in the delirium, but the sleeplessness continued and the patient was getting much weaker. On the 23rd—that is, six days after admission—stimulants were resorted to as there were symptoms of collapse and the bromide was discontinued. On the morning of the 25th the patient was nearly comatose and I was just on the point of giving him some strychnine hypodermically when, to my surprise, he had a well-marked epileptiform seizure and throughout the course of the day he had two others. That night he slept and in the morning he was decidedly better. From this time onward improvement was uninterrupted, perhaps the most remarkable feature being the extraordinary rapidity of the improvement in his mental condition. There were no more epileptiform seizures, and I ascertained that there was no previous history of epilepsy. He remained in the asylum until Oct. 11th, on which day he was discharged. His condition then was as follows. He had greatly increased in weight and the atrophic and paralytic condition in the muscles was fast disappearing and he could write fairly legibly. Mentally he was well, but there was a certain amount of deafness. The vision was somewhat impaired. There was also evidently a certain degree of cirrhotic change in the kidney, as there was an excessive amount of pale-coloured urine of a low specific gravity passed daily.

The history derived from the patient himself after his recovery did not add much to that gained from his wife. Colic had never been marked, although at various times previously to the onset of his illness he had had abdominal pains of the nature of cramp. He had been an abstainer and had never had syphilis. His memory was a complete blank from the time that he became ill until the day after he had the epileptic fits.

That this was a case of lead-poisoning there can be no doubt, and the only deviation from an ordinary case of lead encephalopathy with epilepsy was the suddenness and acute mode of the onset. Had there been any history of alcoholism the symptoms would in all probability have been attributed to that habit and the real cause perhaps overlooked. That the acute onset was the manifestation of another malady and that during the course of this malady the symptoms of lead-poisoning became apparent are quite possible; but is it not reasonable to think that with such evident symptoms of lead toxæmia in the later stages of the illness the initial symptoms were the result of the lead also?

Brookwood.

**INFORMALITY IN A DEATH CERTIFICATE.**—In the November number of the *Maryland Medical Journal* it is stated that not long ago, while the United States ship of war *Chicago* was lying off Netley, near Southampton, England, a sailor died from an accident and a funeral at Southampton Cemetery was planned with full naval honours. The registrar, however, refused to issue a permit on the American surgeon's death certificate on the ground that the latter, not being a registered medical practitioner, was not qualified to certify the death. Application was then made to the coroner, who could not hold an inquest unless the body was landed. The funeral on shore had to be abandoned and the body was a few hours later committed to the sea beyond the three-mile limit.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### NOTES ON A CASE OF LARYNGEAL GROWTH WITH THYROTOMY.

By W. H. KELSON, M.D. LOND., F.R.C.S. ENG.,  
ASSISTANT SURGEON TO THE LONDON THROAT HOSPITAL.

THE following case seems to be of interest from the fact of its long duration.

A man, aged 49 years, came to the London Throat Hospital in August, 1901, complaining of difficulty in breathing and loss of voice. He stated that as a lad he was husky, but he quite lost his voice about 1869, when he went to Golden-square Throat Hospital and became a patient there under the care of the late Sir Morell Mackenzie. Small portions of growth were at this time repeatedly removed from the left cord. This continued for about a year, when his voice being a little improved and feeling somewhat tired he suddenly ceased to attend and avoided all active laryngeal treatment for 31 years. During this period he had always had great huskiness and more or less difficulty in breathing. He said that during the last few months he had lost about two stones in weight and his breathing had become much worse. He was a spare man of somewhat cyanotic appearance; his voice was a hoarse whisper and there was stridor directly he exerted himself. There was no history of syphilis in himself or tubercle or malignant disease in the family. On examination of the larynx the left arytenoid was seen to be motionless and the upper orifice of the larynx was almost blocked by a warty growth. The left vocal cord could not be seen; the right was normal. The exact point of origin of the growth from the left side could not be determined; it felt hard to the finger and forceps. No ulceration could be seen and what little discharge there was contained no tubercle bacilli. Considering the rapid loss in weight and increase in symptoms the last few months the question arose as to whether malignant disease was now present. Mr. E. B. Waggett, who kindly saw the case, thought that it was a simple tumour of some kind and the pathological report on a piece removed was, "A papillary growth probably not malignant." A week after admission to hospital the patient's breathing one afternoon became very much worse, and as asphyxia appeared imminent I had to perform tracheotomy rapidly. A few days after this I introduced a Hahn's cannula and, assisted by Mr. Waggett, performed the operation of laryngo-fissure, when the growth was seen to be a large single papilloma (of the size of half a walnut and weighing 30 grains) arising from the left cord; there was not the slightest sign of infiltration. The growth was removed and the larynx was closed. The patient has now a very fair voice and has resumed his occupation as cabman. The question of recurrence is of course as yet in abeyance.

Old Burlington-street, W.

#### TREATMENT OF WHOOPING-COUGH BY NASAL IRRIGATION.

By EDWARD MAGENNIS, M.D. R.U.I., D.P.H. R.C.S.I.

FORMERLY the treatment of whooping-cough was most unsatisfactory, but now I think it may be hoped that a method has been found of combating and conquering this serious and distressing disease. I have for a long time been of opinion that the origin of this complaint was located in the Schneiderian membrane and this belief has been strengthened by the report of a case published by Dr. E. M. Payne in a medical journal some weeks ago. Acting on this hypothesis I have recently treated two cases, a girl, aged two years and three months, and her brother, aged 10 months, by irrigation of the nares with warm carbolic lotion. There can be little doubt that the disease is produced by a specific organism, as Afanassjew discovered large numbers of bacilli in the sputum in this disease, and

Hewlett in his Manual of Bacteriology says: "Koplik, by sowing the pellets on solidified hydrocele fluid, obtained a pure culture of a small and delicate bacillus measuring 0.8 to 1.7  $\mu$  in length." The bacilli being found in the sputum could be accounted for by the escape of mucus by the posterior nares or by the extension of the disease from the Schneiderian membrane to the pharyngeal or laryngeal membranes. The strength of the lotion which I used was 1 in 40 with a little glycerine added. I procured a two-ounce syringe with an indiarubber nozzle, so that when it was in the nares it could not do any harm, no matter how the child struggled. Three syringefuls were injected into each nostril three times a day. I had only once to show the mother how to use the syringe and afterwards she and the nurse had very little trouble in using it. It is a good plan to bind down the arms with a towel or binder before using the syringe. The result of detailed daily notes of the paroxysms and amount of cough tended to prove in both cases that treatment directed to the Schneiderian membrane by thorough irrigation diminished the frequency of the paroxysms and cough and greatly reduced the duration of the disease. Of course, in this mode of treatment there is a risk of some of the fluid getting into the Eustachian tube.

Dublin.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORAGANI De Sed. et Caus. Morb., lib. iv., Prooemium.

#### WEST LONDON HOSPITAL.

A CASE OF TETANUS NEONATORUM.

(Under the care of Mr. W. MCADAM ECCLES.)

AT present it cannot be doubted that practically all cases of tetanus neonatorum are the result of infection with the tetanus bacillus, and this is especially true if the disease is epidemic; but it is possible that some of the cases which have been thus named are examples of convulsions the result of cerebral injury at birth; at least, this has been the opinion of careful observers, such as Marion Sims, and certainly in some cases injury at the base of the brain can be found. However this may be, the vast majority of the cases are examples of true tetanus. The case recorded below is of great interest in that the antitoxin was employed and the successful result is noteworthy. For the notes of the case we are indebted to Dr. J. John Abramston.

An infant, aged 14 days, was admitted to the West London Hospital on July 29th, 1901, under the care of Mr. McAdam Eccles. The mother stated that up to the previous Tuesday (July 23rd) the child was breast-fed; after that he refused the breast and took food by teaspoonfuls. He passed urine freely the first week after birth, but since then he had done so with difficulty. His bowels had been confined for two days previously to admission. He was brought to the hospital because the mother found suddenly that she could not get the child's mouth open to feed him, and that he was seized by "fits" every time he was touched.

After admission the child was found to have a fit eight times within an hour. Between the fits the abdomen was very rigid, as were also the muscles at the back of the neck and the muscles of expression. The legs and arms were not so much involved but were more rigid than normal. The pulse was 120 and the respirations were 90. The temperature on admission was 98°F. Each fit started with a cry, the abdomen became as hard as a board, the legs and arms were drawn up into the foetal position, and the hands were clenched so firmly that a finger placed in the child's palm previously to the attack was gripped so that the whole body could be lifted *en masse* by it. When the open palm was placed under the child's heels the body could be lifted from the bed in one piece until he stood on his head. The face and forehead were puckered into a painful grin, respiration

stopped, and the whole body became cyanotic. Each fit lasted for about 10 seconds; then the face lost its grin, the child became of a better colour, the sterno-mastoids relaxed somewhat, and the arms could be moved from the shoulder and slightly from the elbow. The legs did not get so relaxed but the orthotonos disappeared.

The seat of the trouble was a septic and pervious umbilicus. But in addition there was severe ophthalmia neonatorum. The umbilicus was curetted and dressed antiseptically under chloroform and the ophthalmia was treated with silver nitrate (two grains to one ounce). An attempt, however, to grow the tetanus bacillus from the umbilical pus was not successful. Three cubic centimetres of anti-tetanic serum were injected every four hours and the child was fed by the rectum during the first day, as every attempt to pass the nasal tube brought on a very severe fit. Two grains of bromide of potassium and one minim of liquor morphinæ hydrochloridi were added to each four-hourly feed.

On July 30th the temperature had been rising steadily since admission, reaching 103.2° at 2 A.M. on the morning of the 31st. Fits occurred every five minutes. The patient was fed by the nasal tube under chloroform. 18 cubic centimetres of anti-tetanic serum were injected during the day (three cubic centimetres every four hours). On the 31st a pink rash due to the antitoxin came out all over the body. The child seemed better, however, as the respirations were not so hurried, the fits were less frequent, and the rigidity between the attacks was not so well marked. The temperature, however, had been going up, reaching 106° at 2 A.M. on the morning of August 1st—the highest point reached during the acute stage. He was fed by the nasal tube without anæsthetic, though each time an attack was brought on. 18 cubic centimetres of serum were injected during the day. On August 1st the temperature had fallen to 99° during the night. The fingers could be moved slightly and trismus was not so constant. On the 2nd the patient was fed by the stomach-tube. On the 3rd the temperature was subnormal for the first time. The serum was discontinued. The breathing was much easier. He still had a fit each time he was fed, but he had no other fits between. There were no fits on the 5th. The abdomen and limbs were still rigid. On the 6th he took one ounce of milk extra by the spoon. On the 11th he was fed by the bottle and on the 28th he was discharged recovered.

*Remarks by Dr. ABRAHAM.*—The comparative rarity of tetanus neonatorum, its almost constant fatal termination, and the usually unsatisfactory results obtained from injection of anti-tetanic serum in acute cases, justify me in recording the above case in which recovery took place, and the serum appeared to have done some good. The disease would seem to be fairly common in tropical countries, especially in the West Indies, but it is comparatively rare in European countries. It is stated, however, that one out of every six children born in the Rotunda Hospital, Dublin, in 1782 died from the disease. In more recent times it was exceedingly fatal in St. Kilda in the Western Hebrides, where it was known as the "eight days' sickness"—84 out of 125 children dying within 14 days (Osler); but with this exception it is now very rare, as, according to Ware, "a case has not been admitted to St. Bartholomew's during the period covered by the statistical reports."<sup>1</sup> As to the fatality, no exact statistics are obtainable, the infantile form being included in the general statistics of tetanus. These show that for an incubation period of 10 days 4 per cent. of the patients recover, and for an incubation period of from 11 to 15 days 27 per cent. recover (Rose). With regard to the serum treatment, the general consensus of opinion, voiced by Kanthack, Roux, Nocard, and others, is summed up by Rose thus: "In man it has not been conclusively proved that recovery has ever been due to serum. Local antiseptics, narcotics, and strengthening treatment hold out the best hopes of recovery."<sup>2</sup>

### EASTERN FEVER HOSPITAL.

#### A CASE OF PURPURA FOLLOWING DIPHtheria.

(Under the care of Dr. E. W. GOODALL and Dr. CONRAD BASAN.)

THE rarity of post-diphtheritic purpura is very great. We are so little acquainted with the essential cause of any form of purpura that it is of little value to speculate on the

method of production of the purpura in this case. It is probable, however, that in all cases there is a modification, not only in the coagulability of the blood, but also in the walls of the capillaries.

A girl, aged 11 years, was admitted to the Eastern Fever Hospital on Sept. 16th, 1901, for diphtheria, of which the symptoms had appeared on the previous day. On the day of admission there was a thick layer of membrane on each tonsil, the cervical glands were enlarged, and the temperature was 103.6° F. Antitoxin (6000 units) was injected and the fauces were flushed with an alkaline solution every four hours. The progress of the disease was favourable and on the 22nd the membrane had quite disappeared. On the 23rd and 24th there was urticaria of the trunk, face, and limbs, without any rise of temperature, but on the 25th this rash had disappeared. On the 26th there was again a slight erythematous rash but no pyrexia. On the 27th a purpuric eruption made its appearance upon both the upper and lower extremities, chiefly about the elbows and the front of the legs. There were a few spots on the trunk and there was some hæmorrhage beneath the right conjunctiva. Mixed up with the spots on the skin was a circinate erythema. There was also bleeding from the nose and mouth, and pin-point hæmorrhages were observed in the buccal mucous membrane. The temperature was 100.2° and the pulse-rate was 130. On the 28th fresh purpuric spots appeared on the face as well as on the trunk and extremities. After this no further spots came out. Most of the spots were cutaneous, small in size, and of a purple hue, but a few were subcutaneous, larger, and of a blue colour. A few days prior to the attack of diphtheria the patient had been vaccinated on the left arm and at the time the purpura appeared the pocks were in the vesicular stage. Hæmorrhage now took place into and around the pocks, which after a day or two looked as if they would slough, but no such event occurred and the scabs separated in the usual way on Oct. 7th. In addition to bleeding from the mouth and nose bright blood was on two or three occasions passed per anum on Sept. 27th and 28th. On the 29th the hæmorrhages were already beginning to fade and the larger ones were of a greenish-brown hue, like old bruises. On this day the circinate erythema was still present. During the day the patient complained of pain in some of the joints and her temperature rose to 102.6° F. The pains in the joints were worse the next day, the large joints being chiefly affected. There was, indeed, some effusion into the right knee-joint. By Oct. 3rd this joint affection had quite gone. On Sept. 27th and 28th, while the hæmorrhages were coming out, the girl was very restless and anxious, complained much of thirst, and slept little. There were also nausea and occasional vomiting. On Oct. 1st the temperature became normal. After the 3rd recovery was fairly rapid, though from the 5th to the 15th there were pain and tenderness along the course and distribution of the ulnar nerve. There was never albuminuria at any time during the patient's stay in the hospital. She was discharged well on Oct. 24th. As for the treatment, calcium chloride, five grains every four hours, was given on the appearance of the purpura and was continued till Sept. 30th. Pain was relieved by opium and phenalgine. The nausea and vomiting necessitated the administration of food by means of nutrient enemata for two or three days.

*Remarks by Dr. GOODALL.*—I have ventured to record this case for two reasons. Firstly, because of its rarity; I have seen only three such cases, including the present one. The account of the first will be found in Vol. L. of the "Guy's Hospital Reports"; and of the other in Appendix I. to the "Report on the Antitoxin Treatment" made by a committee of the Clinical Society of London in 1898. A similar but more severe case was published in THE LANCET of July 20th, 1901, p. 132, by Dr. C. W. Buckley. Secondly, these rare cases of purpura following diphtheria must be distinguished from those common cases in which hæmorrhages, both into the skin and from mucous membranes, occur during the acute stage of the disease (hæmorrhagic diphtheria). Practically every case of hæmorrhagic diphtheria is fatal, whereas in cases of post-diphtherial purpura the prognosis is by no means always grave. In fact, my three cases all recovered, as also did that reported by Dr. Buckley. Dr. Buckley raised the question whether antitoxin has any share in the production of the purpuric symptoms. I do not think it has. My first case occurred before the antitoxin treatment was introduced, and I have met with a similar purpura following scarlet fever where also no antitoxin had been given.

For the notes of the case I am indebted to Dr. Basan,

<sup>1</sup> St. Bartholomew's Hospital Reports, vol. xxxvi., 1900.

<sup>2</sup> Der Starrkrampf bei Menschen, 1897.

assistant medical officer, under whose immediate care the patient was.

### BROMLEY COTTAGE HOSPITAL, KENT.

A CASE IN WHICH THE VULCANITE MOUTHPIECE OF A PIPE WAS IMPACTED IN THE CHEEK AND PENETRATED THE FLOOR OF THE ORBIT.

(Under the care of Dr. HERBERT J. ILOTT.)

THE orbit is singularly tolerant of foreign bodies, and several instances are recorded of the impaction of tobacco-pipes in that cavity.<sup>1</sup> An important point that should be borne in mind is the tendency these foreign bodies have to pierce the orbital roof and so to cause serious or even fatal injury to the brain.<sup>2</sup>

A man, aged 42 years, was cycling downhill on March 18th while smoking a briar-root pipe with a vulcanite mouthpiece. The chain of the machine became detached and he was pitched forward over the handle-bar, falling into the road. He fell on his left side, sustaining a Colles's fracture of the left wrist and felt pain in the left side of his face. He noticed that the pipe was broken and threw away the bowl and wooden part of the stem, thinking that the mouthpiece was in the road, but no search was made for it. On the same evening he went to his club surgeon who attended to his wrist, applying splints. His mouth was bleeding from a wound on the inner side of the right cheek on the level of the first molar tooth, but no close examination was made of the injury inside the mouth. The face became very swollen and painful, the eyelids being so swollen that for several days he could not see out of the right eye. When the swelling of the lids had somewhat subsided he noticed that the eyeball was prominent and he had double vision. It was thought that the bone was fractured and that an abscess was forming, but no suspicion of the presence of a foreign body seems to have been entertained by the patient or his medical man. He was then sent to the Westminster Ophthalmic Hospital. He was told that the cheek wanted attention, but that when that was righted the eye trouble would disappear. This was on April 3rd; the wound in the mouth was discharging pus at the time. He returned home and continued the use of poultices and of fomentations which he had been ordered. At times he suffered much pain.

On April 21st he was sent to Dr. Ilott by his medical man. Dr. Ilott noticed the protrusion of the eyeball and felt a hardness in the right cheek. On the inside of the mouth was a sinus discharging pus. On introducing a probe a hard smooth substance was felt and on moving the probe to one side it sank into what felt like a fissure in the bone. On the 24th Dr. Ilott again examined him at the Bromley Cottage Hospital. On again probing the instrument struck against the hard substance and passed in some distance. On withdrawing it the end was noticed to be discoloured and smelt of nicotine. An incision was then made through the mucous membrane for about half an inch and on being deepened and inspected a circular black surface was exposed. Introducing a pair of necrosis forceps this was seized and a black vulcanite tobacco-pipe mouthpiece measuring two and seven-eighths inches was withdrawn. A probe passed along the track went through an opening in the bone into the orbit. The cavity was syringed out with weak perchloride solution and drained.

On May 3rd the patient was shown at a meeting of the North Kent District of the South-Eastern Branch of the British Medical Association at Dartford, and his case evoked much interest from the members assembled. On the 8th he was again seen at the Westminster Ophthalmic Hospital and the proptosis had nearly disappeared and vision was much improved. On the 14th Dr. Ilott saw him again. The tract had healed, the induration in the substance of the cheek had also gone, and the sight was normal.

*Remarks by Dr. ILOTT.*—The case is of interest from the fact of a foreign body of so large a size being impacted unsuspected for so long a time—nearly five weeks—and the rapid recovery and relief that followed its removal.

<sup>1</sup> THE LANCET, July 4th, 1891, p. 15. Brit. Med. Jour., 1880, vol. i., p. 514.

<sup>2</sup> THE LANCET, July 17th, 1886, p. 143.

## Medical Societies.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

*Intestinal Obstruction due to the Pressure of a Vesical Sacculus upon a Coil of Small Intestine.*—*Alkaptomuria.*

A MEETING of this society was held on Nov. 28th, Dr. C. THEODORE WILLIAMS, the Vice-President, being in the chair.

Mr. THOMAS BRYANT described a case of Intestinal Obstruction due to the Pressure of a Vesical Sacculus upon a Coil of Small Intestine in a man, aged 67 years, who during a brief illness from angina pectoris became the subject of intestinal obstruction, associated with a tumour rising from the pelvis and extending upwards in the abdomen to the right of the median line above the level of the umbilicus. Symptoms had gradually increased in severity for eight days, obstruction had become complete, and the vomit had become faecal. An exploratory incision was made and it was found that the obstruction was due to the presence of a vesical sacculus, springing from the right side of the fundus of the bladder; this had by pressure upon a coil of small intestine caused complete obstruction. The existence of an abdominal tumour had been recognised by Dr. M. G. Biggs, the patient's medical attendant, at least one and a half years previously when he had been called in for some passing bladder trouble. It was then but small, only just rising out of the pelvis; at that time some enlargement of the prostate gland was also recognised. The patient survived the operation only 22 hours. No necropsy was permitted. The case was an unusual one, for it seemed certain that the cause of the patient's intestinal obstruction had been due to the pressure of the sausage-shaped vesical sacculus upon a coil of small intestine which passed behind it and between it and the spinal column, and this view was supported by the fact that on opening the abdomen the colon and small intestine on the right of the tumour were found pale and empty, whereas the small intestine on the left side was found full and congested, the seat of pressure upon the bowel by the tumour being very evident. It was likewise clear that the opening of communication between the sacculus and the bladder must have been very minute, for the bladder seemed to have done its duty during the formation of the sacculus in apparently a satisfactory way, and even at the time of operation, when the bladder was emptied by means of a catheter, the tension in the sacculus was not materially affected, for it was only upon manual compression of the sacculus that it was emptied, and then but slowly. It should not, therefore, be forgotten that a vesical sacculus might be the cause of intestinal obstruction.—Mr. REGINALD HARRISON said that he knew of two cases which were of interest in connexion with that reported by Mr. Bryant. In the first case, which was one of vesical sacculus, there had been during the course of the illness remarkable and unexplained attacks of constipation. An operation was performed and it was found that the sacculus came in contact with, and pressed upon, the rectum, and it was clear that the constipation was due to this cause, for subsequently the patient ceased to be subject to these attacks. The second case was also one in which a vesical sacculus was diagnosed. The patient was in a very feeble condition. The sacculus was drained, but the patient died, and it was found that the apex of the sacculus was adherent to the intestine and that the lumen of the gut at this point was reduced to about one-half its normal diameter.—Mr. CLINTON T. DENT said that it would be of interest to know if there was any stenosis of the intestine in Mr. Bryant's case. He thought that it was most unusual for a sacculus of the bladder in which there was no inflammation to cause obstruction of the intestine.—Mr. BRYANT, in reply, said that the first case mentioned by Mr. Harrison was very similar to the one which he had recorded, but the second case differed in that the sacculus was adherent to, and had caused actual narrowing of, the intestine. With regard to the condition of the intestine in his case it was clear that there was no actual stricture, for as soon as the bladder tumour was raised the contents of the distended intestine passed into the empty intestine. The

intestine above the obstruction was congested, while that below was pale and collapsed.

Dr. A. E. GARROD read a paper on Alkaptonuria, which will be found in full at p. 1484 of this issue.—Dr. THEODORE WILLIAMS regretted that more work on chemical pathology was not brought before the society, as he considered that great advance in medicine had been made along these lines. He referred to the importance of the recognition of alkapton in relation to insurance work and asked by what tests this body could be distinguished from sugar.—Dr. W. A. OSBORNE mentioned the case of a man who had been refused by an insurance office on account of what was supposed to be sugar in the urine. He had examined the urine and had found that homogentisic acid was present. Two brothers of this patient also had alkaptonuria. The cases of these brothers had been described by Dr. Pavy. If homogentisic acid was derived, as was suggested, from tyrosin then an alkaptonuric patient fed on a tyrosin-free diet should pass no alkapton. Such a tyrosin-free diet would be sugar, fat, and gelatin. Chemically it was difficult to see how tyrosin became converted into homogentisic acid. He further suggested that a patient should be fed with some of the intermediate products between tyrosin and homogentisic acid and the effect on the urine observed.—Dr. GARROD, in reply, said that it was difficult in his case to give an entirely tyrosin-free diet, as his patient was a child, aged four years, but the experiment had been tried abroad where an adult patient had only tea and brandy for three days. The result was that the homogentisic acid diminished to about one-third but did not entirely disappear.

## MEDICAL SOCIETY OF LONDON.

### *Symptoms and Treatment of Moveable Kidney.*

A MEETING of this society was held on Nov. 25th, Mr. JOHN H. MORGAN, in the absence of the President, being in the chair.

Mr. HENRY MORRIS read a paper on the Symptoms and Treatment of Moveable Kidney, which is published in full at p. 1467 of this issue.

Mr. MORGAN said that there was always a difficulty to ascertain what was true and what was false in the patient's symptoms. Many of these patients were neurotic. Mr. Morris had pointed out very clearly in what cases an operation should be performed. He thought that rest was of little value and that operation generally relieved the symptoms. In some cases on which he had operated the symptoms from which the patient suffered recurred.

Dr. T. J. MACLAGAN said that there were two points in which he differed from Mr. Morris. The first was with regard to treatment by rest, and as a proof of the efficacy of this in certain cases he mentioned the case of a woman who had suffered from the usual symptoms of moveable kidney. The patient was placed at rest for six weeks. More than one year after she was perfectly well and the kidney was no longer moveable. He mentioned a second similar case. He thought that the condition most frequently occurred in thin persons. The second point on which he differed was the statement of Mr. Morris that jaundice was not produced by a moveable kidney. He said that he had published three such cases; in one in which there was jaundice the patient was thought to have a gall-stone; an operation was performed and no stone was found in the gall-bladder, but there was a moveable kidney. This was fixed and the patient was completely cured. He mentioned another case in a woman who had frequent attacks of jaundice. In this case a moveable kidney was present, and after fixation the patient remained well. The third case had all the symptoms of hepatic colic with jaundice. Operation was performed and a moveable kidney was found and fixed. These cases seemed to prove that a moveable kidney might give rise to jaundice.

Mr. W. BRUCE CLARKE thought that the cases cured by rest mentioned by the last speaker might be cases of enteroptosis. In deciding whether an operation was advisable the amount of mobility of the kidney was not of such importance as the amount of pain which the mobility caused. The cause of pain, he thought, was due to the retention of urine in the pelvis of the kidney, and this condition could often be relieved by pressure on the abdomen. The association of these kidney conditions with digestive troubles was, he believed, due to traction on the stomach and gave rise to the severe attacks of vomiting. The method which he employed in

fixing the kidney was one that brought the kidney close to the lumbar fascia.

Mr. F. SWINFORD EDWARDS said that in fixing the kidney it should be replaced so that it lay above the margin of the ribs, and he asked Mr. Morris what method he adopted in order to ensure this. He mentioned a case in which hydronephrosis followed on nephropexy. He said that he only remembered one case in which the kidney again became moveable after he had performed a nephropexy. Some six months after the operation there was a return of symptoms and the kidney was again moveable, and at times was easily felt, but it could not be reduced. At other times, however, it seemed to return to its position and could not be dislocated by any movement of the patient. He intended to re-fix this kidney in the patient but had not yet had the opportunity.

Mr. L. A. BIDWELL said that he would be glad of any information as to the subsequent history of the patients operated on. He had investigated his own cases and in some after two or three years the symptoms had tended to return.

Mr. W. G. SPENCER said that in those cases in which symptoms returned he had done a nephrotomy, for he considered that the pain was probably due to a slight hydronephrosis or accumulation in the pelvis of the kidney. He had himself often incised the kidney at the same time as he had fixed it.

Mr. MORRIS, in reply, said that with regard to the curative effect of rest it was a matter of individual experience but that the cases mentioned were probably cases of enteroptosis. He believed that a deficiency of the perinephritic fat tended to the production of moveable kidney and Dr. MacLagan's cases seemed to support this view. With regard to the cases of jaundice produced by moveable kidney he said that he did not think that they were due to the direct pressure on the biliary passages, but they might be due to dragging on the duodenum and thus producing obstruction of the duct at its entrance into the intestinal canal. He thought that the increase in the size of the kidney was due not to hydronephrosis but to venous congestion due to obstruction of the veins. He mentioned a case in which he had at first fixed a hydronephrotic kidney, but four months later he had to remove this owing to a recurrence of pain. He had never seen hydronephrosis follow an operation. With regard to after-results he hoped he had made it clear in his paper that the cases in which symptoms returned were in the neurasthenic patients. He described Valliet's operation, which was, he said, unnecessarily severe, and he did not think it advisable either in fat or in neurotic patients, but it had the advantage of drawing the kidney up under the ribs.

## CLINICAL SOCIETY OF LONDON.

### *Intracranial Section of the Second and Third Divisions of the Trigeminal Nerve for Severe Neuralgia.—Fragilitas Ossium.*

A MEETING of this society was held on Nov. 22nd, Mr. HOWARD MARSH, the President, being in the chair.

Mr. T. H. MORSE read a paper on Two Cases of Intracranial Section of the Second and Third Divisions of the Trigeminal Nerve for Severe Neuralgia. He referred to the articles published by Victor Horsley in 1891, those of W. Rose in 1892, and also to those of Hartley, Krause, Jonathan Hutchinson, jun., and Lynn Thomas. Two cases were related in which the Hartley-Krause operation was performed, the bone being removed with mallet and gouge, and gouge cutting forceps. After section of the second and third divisions of the fifth nerve the foramina ovale and rotundum were blocked with Horsley's wax for the purpose of preventing reunion of the divided nerves. In both cases cure was obtained, one having been done more than two years ago.—Mr. J. HUTCHINSON, jun., reported the results of five cases in which he had excised the Gasserian ganglion, four of the patients being shown at the meeting. The operation had been performed in one case four years, in two cases three years, and in one case two years previously. In not one of the five patients had there been the slightest recurrence of the neuralgia. He urged that the temporal route should alone be employed to gain access to the ganglion, and quoted one of his cases in which the operation from below (by the pterygoid route or Rose's method) had been previously performed

by another surgeon. The operation had been carried out in two stages and it was believed that the ganglion had been at any rate in part removed. The return of the neuralgia worse than before and the imperfect anaesthesia had raised doubt as to this, and at the final operation by Krause's method—i.e., through the temporal route—it was proved that the ganglion was quite intact and that the base of the skull had been previously penetrated outside the foramen ovale. Such a case well illustrated the fallacies attending the operation when performed by the pterygoid route. He pointed out that in these cases of severe epileptiform neuralgia of the fifth nerve the ophthalmic division was affected in only one-fifth of the cases, that probably in some of these the involvement of the first division was in a sense reflex and would be cured by removal of the second and third divisions with the corresponding part of the ganglion, leaving the ophthalmic trunk untouched. Many cases proved the correctness of this view, and he did not know of a single one in which after this course had been thoroughly carried out the neuralgia had returned in the ophthalmic division. If the latter were spared the eye ran no risk, whilst other complications, such as injury to the oculo-motor nerves and the cavernous sinus, might be avoided with comparative ease. He urged that an anaesthetic cornea was never safe, and instanced one of his cases in which, after complete removal of the ganglion, the corresponding eye had become inflamed and required excision after several months had elapsed. In his later cases he had deliberately avoided cutting the ophthalmic part. As regards the details of the excision it was probably better to use a large trephine and cutting forceps (without subsequent replacement of bone) than to turn down a flap of bone and overlying tissues. It was not always necessary to tie the meningeal artery, especially if the lower part of the ganglion alone were dealt with. Haemorrhage was lessened by keeping the patient during the whole operation in a sitting position. An electric head lamp was essential and the use of the curette "to break up the ganglion" was strongly deprecated. Intra-dural division of the fifth nerve was far more dangerous than extra-dural excision of the ganglion. Dr. Tiffany's statistics of 108 cases, with a mortality of 23 per cent., did not at all represent the actual risk of the Hartley-Krause operation, since amongst them were included cases operated on by many methods, including the dangerous intra-dural one, and such needlessly severe methods as that advocated by Doyen. The latter surgeon had lost two out of three of his cases directly from the operation. The mortality of the operation by the temporal route in skilled hands was probably under 10 per cent., and so lasting were the results that without doubt in the future most of the operations on the main branches of the fifth nerve for severe neuralgia would be abandoned in its favour. He urged that the victims of epileptiform neuralgia should not be left to develop suicidal tendencies or to poison themselves with morphia before being given the chance of a permanent cure by the operation.—Mr. CUTHBERT S. WALLACE showed a case in which he had intended to remove the whole Gasserian ganglion from a patient who had suffered from severe epileptiform neuralgia for several years. He had, however, failed to remove the whole of the ganglion owing to severe haemorrhage from the cavernous sinus. He had also to tie the external carotid owing to the haemorrhage from the middle meningeal artery. The patient made a good recovery and had remained free from pain ever since the operation.—Mr. C. A. BALLANCE said that he had removed the Gasserian ganglion in 10 cases on account of severe neuralgia. He considered it advisable to remove the whole ganglion and also a portion of the nerve on the proximal side. Haemorrhage was often severe but could be avoided by carefully isolating the ganglion. He thought that old age should not be urged as a reason against operation and stated that he had operated on two women, one aged 84 years and the other aged 71 years, with success. He considered it well to perform the operation in two stages, in the first of which the ganglion was exposed and in the second stage some four or five days later the ganglion was removed. He thought that if the operation was done at one sitting the risk to the patient was greatly increased and probably accounted for the high mortality. The ganglion could be easily isolated with care without any risk to the cavernous sinus, the greatest danger being in attempting to remove the first division. He hoped the time would soon come when it would be possible to separate the sensory from the motor fibres and to divide the former without the latter.—Mr. CLEMENT LUCAS asked if the bone had

been replaced and mentioned a case in which he had put the bone back with the concave surface outward. The patient did perfectly well.—Mr. F. C. WALLIS mentioned the case of a man who had suffered from severe neuralgia for 16 years. He had had most of the teeth removed. It was arranged to remove the Gasserian ganglion, but before doing so the teeth were again carefully examined and the stumps of three molars were removed, and from that time onward the patient was free from attacks, although he previously had had from 29 to 44 per diem.—Mr. MORSE replied.

Mr. WARRINGTON HAWARD described a case of *Fragilitas Ossium* in a boy, aged 10 years, who was admitted into St. George's Hospital under his care in October, 1889, on account of extreme deformity of the legs. He was a bright, intelligent, and healthy-looking boy, with no signs of rickets. He sat upright and his spine was straight. The bones of the arms and forearms were much deformed and were curved outwards to a varying extent. They showed signs of many old fractures. The hands were fairly developed and were used actively. The lower limbs were less developed than the upper. The bones were thin and with sharp margins. The femora were both curved forwards and outwards. The tibiae both showed an extreme degree of forward curvature, so that the lower half was at a right angle to the upper half of the leg. There was evidence of numerous past fractures. The muscles of the legs were much wasted and the skin was adherent over the most prominent part of the tibia. Photographs of the boy and skiagrams of the bones were shown. The boy's health appeared in most respects to be good, with the exception of a remarkable condition of the urine. The urine when passed appeared to be natural, but on standing deposited a large amount of calcium salts which formed a mortar-like sediment. An analysis of the urine kindly made by Mr. J. A. Gardner showed it to contain a very large excess of lime salts. The history of the case showed that the boy was of healthy parentage and that of eight children none but this boy had any signs of disease. The only notable point in the family history was that before the birth of this child (the seventh) the mother had been weakened by rapidly succeeding pregnancies. When born this child was found to have fractures of both humeri and two ribs and subsequently 23 fractures of long-bones were recorded, all from slight causes. He had never walked alone. He had lived in a healthy part of the country and had been well fed and cared for. He was given, after admission to the hospital, cod-liver oil and a highly nutritious diet, and attempts were made to straighten the limbs by extension but without success. In January, 1900, he fractured the left femur when turning in bed, but the bone united well under ordinary treatment. In March, an analysis of the urine by Mr. Gardner having shown that the excessive excretion of lime salts had ceased, Mr. Haward straightened the right leg by the excision of a wedge-shaped piece of tibia, the ends of the bone being wired together. The bones united soundly. The left leg was subsequently operated upon with a similar result and the boy was sent home with leather splints on. He is now learning to walk. Reference was made to a similar case recorded by Mr. Clinton Dent, and the paper concluded with some remarks upon the connexion of the bone changes with the condition of the urine.—Mr. CLINTON T. DENT mentioned the case of a man, aged 29 years, in whom multiple fractures had occurred—he was unable to sit up and unable to hold up his head. He was a watchmaker by occupation and he had had an apparatus made which supported his head and then he was able to go on with his work. The urine in these patients was often almost solid with phosphates. He said that callus was often thrown out around these bones before the fracture occurred, and that when it did occur it was rather a bending of a softened bone than an actual fracture.—Dr. F. J. POYNTON said that he had had under his care a child who was first brought to him with extreme tenderness of the limbs. He had at first thought that it was a condition of scurvy, although there were no other manifestations of that disease. Greenstick fractures occurred in both femora. Some months later the left humerus became tender; fractures then occurred, first in the left and then in the right humerus, and again at a later period the tibiae passed through the same stages and fractured. There was always irregular fever associated with these attacks. There was no evidence of congenital syphilis in his case. He regarded the case as possibly the acute phase of the condition which Mr. Haward had described that evening.—Mr. J. HUTCHINSON, jun., mentioned a case in which the radius and ulna were similarly affected; this, however, occurred in a child who was

the subject of congenital syphilis.—Mr. CLEMENT LUCAS suggested that inherited syphilis might play an important part in the production of the disease.—Mr. HAWARD, in reply, said that the great interest of these cases centred round their causation. He was certain that in his case the condition was not due to inherited syphilis; there was no tenderness of the bones at any time and his case differed in this respect from that quoted by Dr. Poynton. He was certain that it was not due to rickets.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

### SURGICAL SECTION.

#### *Opening Address.—Laparotomy for Intestinal Obstruction.—Exhibition of Cases.*

A MEETING of this section was held on Nov. 8th, Mr. THOMAS MYLES (President of the Royal College of Surgeons in Ireland), the President, being in the chair.

The PRESIDENT took for the subject of his opening address the Advantages of Operative Interference in Complicated Fractures of the Long Bones, as practised by Mr. Arbuthnot Lane in London. He compared the surgical audacity of operative measures on the abdominal contents and the timidity which surgeons exhibited in the more accessible regions of the upper and lower extremities in cases of fracture. The older classifications of fractures were, he considered, too artificial to be helpful, and were, to the beginner, stumbling-blocks to diagnosis. Cases of fracture complicated with dislocation were difficult of diagnosis, and where, as was sometimes the case, calcareous deposits formed the Roentgen rays gave little aid. He had met one such case in which a fracture of the anatomical neck of the humerus was complicated with dislocation of the head of the bone and the deposition of a large calcareous mass which extended up to the clavicular articulation. All the classic symptoms of separation of the greater tuberosity were present and the pathological condition was only made known by raising the deltoid muscle. In such doubtful cases he recommended that the deltoid should be separated from its brachial insertion and the part exposed so that the lesion might be recognised. The operation presented no difficulties, was quickly performed, and was comparatively free from risk.

Mr. J. LENTAIGNE read a paper on a case in which Laparotomy had been twice performed, with six months' interval, for the relief of Intestinal Obstruction resulting from the presence of large concretions in the colon. The patient, a boy, aged 10 years, had been addicted to chewing woollen fabrics, blankets, and such like, and when admitted to hospital was suffering from constipation and vomiting which daily became worse. For a week he got injections through an O'Beirne tube which were unattended by any good results. An operation was performed. The abdomen was opened, two large rounded concretions were removed from the colon, and the boy made a good recovery. Six months afterwards he was again admitted to hospital and again after a fair trial of injections a laparotomy was performed and the colon was opened and evacuated, in the performance of which the old silk continuous sutures of the previous operation were met with and were found practically unaltered. An attempt was made to create a cæcal fistula in order to prevent the recurrence of the condition. The fistula, however, closed, and the boy, now convalescent, left the hospital, to return 12 months afterwards with the same symptoms—vomiting and constipation. On this occasion the rectum was found to be packed with a hard mass of faeces and fibrous material which was scooped and washed out. The boy made a good recovery without any further operation.—The PRESIDENT considered the paper very instructive, as showing the difficulty of diagnosing abdominal tumours, and said that in a somewhat similar case he had seen good results obtained from olive oil injections followed by the use of electricity, which produced free vomiting and purging.—Mr. H. GRAY CROLY thought that palliative treatment by injections might have been given a more extended trial before resorting to colotomy. He thought the second operation unnecessary, and there was nothing to indicate that it had been advantageous.—Mr. J. S. MCARDLE quite agreed with Mr. Lentaigue in the necessity for early operation in such cases; nothing was

gained by delay, and it was sound surgery to operate and to remove the concretion from above. He was particularly pleased with the fulness of detail with which the paper was presented.—Mr. A. B. MITCHELL (Belfast) congratulated the author of the paper on finding a hypertrophied colon. In one of his cases the colon was so much attenuated that the tissue could not hold the sutures; the wound opened and the patient, a boy, died.—Mr. L. H. ORMSBY gave an instance of a patient under his care who was in the habit of eating her hair, nibbling off portions until she produced a mass of matted hair in her stomach, which he excised.—Mr. DOYLE drew attention to the tendency of alimentary concretions to simulate malignant disease of the bladder. A patient under his care for malignant growth of the bladder was found after death to have a healthy bladder, the trouble having been caused by an immense accumulation of charcoal in the rectum and descending colon.—Mr. A. CHANCE instanced the case of a boy, who, from eating straw, formed a mass in his ileum of about the size of a banana which necessitated operation.—Mr. LENTAIGNE, in reply, thought that any further use of palliative remedies would have done away with all prospect of success. The attempt at formation of a cæcal fistula was not attended with any benefit, as might have been expected had they known the real cause of the trouble, but having performed it he thought it but right to mention it.

Mr. CROLY showed: (1) A child, aged four years, exhibiting results of Excision of the Astragalus for Tuberculosis; (2) a child, aged seven years, showing results of Excision of the Astragalus and the end of the Fibula, with Gouging of the Os Calcis for Tuberculosis; and (3) the Astragali removed from Three Patients.

Mr. E. H. TAYLOR showed: (1) A patient in whom the so-called Excision of the Superior Maxilla had recently been performed for Sarcomatous Disease; (2) cases showing the result of operation for complete Cleft of the Hard and Soft Palate; and (3) a case presenting extensive Varicosity of the Veins of the Right Upper Extremity.

Mr. TAYLOR also exhibited: (1) Parts removed in the Operation of Suprapubic Prostatectomy; (2) a Kidney removed for Calculous Disease; (3) Sarcoma of the Superior Maxilla; and (4) Comminuted Fracture of the Atlas Vertebra, the result of a fall.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—A pathological meeting of this society was held on Nov. 15th, Dr. A. G. Barrs, the President, being in the chair.—Dr. Harvey Baird read a paper on a case in which Emphysema of the Liver developed post mortem in a female patient of cachectic aspect, 71 years of age. At the necropsy 36 hours after death the liver was noticed to be of a pale, reddish, yellow colour, and of spongy consistence. A few blisters were observed on its surface, and when cut into it was seen to be riddled with air-spaces of small size, minute bubbles escaping on pressure. The liver had a peculiar offensive pungent odour, which was still pre-ent in a portion of the organ imbedded in paraffin. On microscopical examination the liver was found to exhibit numerous gas-containing cavities from one-sixth of a millimetre to two millimetres in diameter, which pressed aside the liver columns. No leucocytic emigration had occurred and the liver cells were unaltered beyond exhibiting pigmentary change. Bacilli from  $3\mu$  to  $6\mu$  in length, staining by Löffler's and Gram's methods, were found massed together in very large numbers throughout the liver substance. The capsule of these micro-organisms was not very distinct. They were arranged singly, in pairs, or in chains, and exhibited granular contents. In the remaining viscera no similar condition was recognisable on naked-eye observation. No point of entry of the bacillus was ascertained, but the condition of the alimentary mucous membrane was not examined.—Dr. C. Powell White and Mr. P. J. Cammidge referred to Dr. Mantle's case in which they found the bacillus aerogenes capulatus in the organs. Here there was evidence to show that the infection took place before death.—Dr. E. F. Trevelyan and Dr. T. W. Griffith made some remarks on ante- as against post-mortem infection and Dr. Baird replied.—The following specimens were shown:—Dr. T. J. Wood (Bradford): (1) A cast and a specimen of Bony Outgrowths from the Third Cervical Vertebra; (2) Gall-stone removed from the Common Bile Duct by Duodenal Incision and slitting up of the Papilla; and (3) Renal Calculi.—Mr. R. A. Forsyth: Osmic Acid Preparations from a case of

Pseudo-hypertrophic Paralysis.—Mr. Edward Ward: (1) Malignant Stricture of the Small Intestine excised from a woman, aged 62 years; (2) Hydronephrotic Kidney due to Congenital Kinking of the Ureter removed from a woman, aged 34 years; (3) two Water-colour Drawings of Actinomycosis of the Face; (4) Specimen of Soft Sarcoma of the Thigh; and (5) Epithelioma following Lupus (with photographs).—Dr. Barrs and Dr. Trevelyan: A Cyst of the Cerebellum.—Dr. W. R. Wilson (Doncaster): (1) A Sarcoma involving the Body of the Sphenoid, Meninges, Orbits, and Naso-pharynx of two years' duration; and (2) a Sarcoma of the Tonsil perforating the Internal Carotid and producing Fatal Hæmorrhage.—Mr. Cammidge: (1) A specimen of Sputum showing enormous numbers of Tubercle Bacilli; and (2) a preparation of Diphtheria Bacilli straight from the Throat stained by Neisser's method.—Mr. H. Littlewood: (1) Ectopic Gestation with the Vermiform Appendix incorporated in the Wall of the Sac; and (2) Inflamed Vermiform Appendix with Concretions removed during the third month of Pregnancy.—Mr. Littlewood and Dr. Trevelyan: Medulla Oblongata and Pons from a case of Facial Cellulitis complicated by a Hemiplegia. A pure culture of a staphylococcus was obtained by Dr. Trevelyan from a metastatic abscess in the heart and the same micro-organism was found in the meningeal exudation.—Dr. A. Bronner (Bradford): Specimens of (1) Tuberculous Growth of the Nasal Septum; (2) of the Middle Turbinate Bone; and (3) of Conjunctivæ Bulbi.—Mr. W. H. Brown: Sarcoma of the Kidney.—Dr. T. Churton: (1) Sarcoma of the Brain; and (2) Hour-glass Stomach, found post mortem. There were no symptoms during life.—Dr. J. B. Hellier: (1) A Uterus from a case of Puerperal Septicæmia; and (2) an Ovarian Dermoid.—Mr. Mayo Robson: (1) Traumatic Aneurysm (Brachial) from the patient shown at the last meeting; (2) Calculous Nephritis with enormous Dilatation of the Kidney Pelvis; (3) Carcinoma of the Stomach (excised); and (4) Cystic Fibroma of the Uterus.

CHELSEA CLINICAL SOCIETY.—A meeting of this society was held on Nov. 19th. Mr. C. A. Morris, the President, being in the chair.—Dr. G. F. Petrie (Research Student, Jenner Institute) read a communication on Some Aspects of the Method of Cryoscopy. He pointed out that a knowledge of the laws involved in the case of simpler substances than blood was essential in order to have a clear conception of the principles on which the method was founded. Hedin's researches on the freezing-point of the blood were referred to, in which he found that its albuminous constituents played almost no part in the osmotic pressure of the serum, and that this was due almost entirely to its salts. Thus a relatively large percentage of a complex toxic body in the blood would have very little effect on the depression of its freezing-point, while a slight excess of the NaCl of the blood would produce a relatively greater depression, and the determination of the freezing-point of the blood simply measured the osmotic pressure of the serum; it gave no indication whatsoever as to the composition of the blood or as to the presence in it of what might be roughly styled "impurities." The application of the method in obscure cases of hepatism, as suggested by Ogston, necessitated a more exact knowledge of the pathology—not to say the physiology—of the functions of the liver than they at present possessed. The impracticability of the method as applied to urine seemed self-evident on considering the widely varying concentration of its salts dependent on the quality and amount of diet and influenced by the activity of other eliminating organs. A difficulty was introduced in the case of blood by the fact that the osmotic pressure of the serum varied considerably in many general diseases with no renal complication. In such a contingency a large amount of material carefully studied from every possible point of view might furnish a generalisation which would give assistance in arriving at a decision when the propriety of operating was open to question.—Dr. Petrie also gave a demonstration of the Hæmolysins and Anti-hæmolysins of the Bacillus Pyocyaneus.—Dr. C. C. Gibbes showed cases of Valvular Heart Disease which illustrated the difficulty that occurred in diagnosing some of the basal diastolic murmurs. Dr. Gibbes dwelt at some length on their conduction, explaining the variations that appeared in the cases shown. For purposes of diagnosis he considered that the points which required attention among the general characters of a case were: (1) the conduction of the murmur; (2) the alteration effected in its intensity by change of position; and (3) when the second sound was reduplicated the

relation which the murmur bore to the pulmonary and aortic portions of the reduplication.—A discussion followed, in which Dr. W. Ewart and Dr. T. V. Dickinson took part.—Mr. A. F. Penny read a paper on Errors in Diagnosis Avoidable and Unavoidable. The majority of avoidable errors in diagnosis were due to hurried and inefficient examinations of patients, directing too much attention to symptoms and too little to physical signs and *vice versa*, and failing to use the different instruments of precision—e.g., the ophthalmoscope, laryngoscope, and specula of different kinds. All successful diagnosticians possessed the synthetical faculty as well as the analytical, the capacity of coming to the point. No amount of training or education would give this to a man who had not got it in him. Special stress was laid on the importance of the practitioner attending post-graduate hospitals and thus keeping abreast of the times. Book knowledge was good in its way, but it was not living knowledge. The abdominal cavity was the region of surmises and surprises and many unavoidable errors in diagnosis were made in abdominal cases. Many examples of avoidable and unavoidable errors in diagnosis were given.—A discussion followed in which the President, Dr. Ewart, Dr. Gibbes, Dr. J. Blumfeld, and Dr. Dickinson took part.

WINDSOR AND DISTRICT MEDICAL SOCIETY.—The second meeting of the session of this society was held on Nov. 20th, Mr. W. B. Holderness, the President, being in the chair.—Microscopical preparations were exhibited illustrating Placental Polypus, Vesicular Degeneration of the Placenta, Hæmorrhage in the Placental Tissue, and Colloid Degeneration of the Placenta, the slides being lent by Dr. G. Leslie Eastes, of the Laboratory of Clinical Pathology, Queen Anne-street, London, W.—Dr. E. B. Hulbert showed the organs from a case of Cholecystitis occurring in a man, aged 65 years.—The President showed a case of Hodgkin's Disease in a lad, aged 17 years. In addition to enlarged glands in the neck and axillæ there was a large swelling in the left side of the sternum thought to be due to glandular growth in the mediastinum.—Mr. W. Atkin Thompson showed a case of Recovery from Severe Angina Ludovici. A small deep scar alone remained as the result of a huge incision below the jaw. The resulting sinus had been plugged with ribbon gauze.—Captain F. S. Brereton, R.A.M.C., showed: (1) a case of Morbus Cordis characterised by a murmur limited to a small area of the cardiac region (there was a good deal of hypertrophy); and (2) a case of Enlarged Testis in a young soldier originating in a blow (there was considerable thickening of the cord and testicular sensation was in abeyance).—The cases having been discussed at some length, Mr. J. H. Tomlinson showed an Electric Lamp Perimeter designed for the purpose of testing colour or light fields in a dark room. It consisted of a small electric lamp mounted and sliding on the quadrant, with two adjustments, so that its position could be altered by either the physician or the patient. Caps of different coloured glasses or solutions could be fitted over the lamp and the size of the aperture could be varied by a diaphragm. The eye was fixed by a central spot of luminous paint. Mr. Tomlinson found that the fields for colour pigments differed from those for lights of the corresponding colours. The field for green was smaller than was that for red, while this again was smaller than was that for blue. It was important to note that in hysteria this order was often reversed. The importance of the perimeter in glaucoma was dwelt upon, any curtailment of the field of vision being at times even a more important sign than increased tension. The curtailment was manifested first on the nasal side of the field.—Mr. W. J. Handfield Haslett being prevented from attending, his paper, entitled, "Some Points in the Prognosis of Mental Disturbance," was read by the honorary secretary. The paper commenced by discussing the factors influencing the prognosis of mania, the questions of age, sex, and history, the character of the delusions, the periodicity of attack as affecting the chances of recovery in mania and in the varieties of acute delirious mania, puerperal mania, the insanity following the exhaustion of typhoid fever, and adolescent insanity being entered into at length. In the prognosis of melancholia the weight attaching to the cause, history of onset, early treatment, and the character of the hallucinations was dwelt upon and stress was laid on the importance of inducing a growth of fat in this condition. The prognosis in conditions of dementia could not, owing to want of time, be more than touched upon, but some points influencing the duration of life in this condition were noted. The

influence of congestive seizures upon longevity in the case of the general paralytic was alluded to in some detail. The effect of epileptic attacks upon the immature and mature brain was next discussed, the impossibility of laying down rules as to when dementia would supervene in these cases being insisted on. Finally, the paper dealt with some points affecting the prognosis in the insanities of syphilis, alcoholism, and senility, and concluded with a warning not to be too ready to condemn a patient as suffering from dementia after an acute mental attack.

**SOUTH-WEST LONDON MEDICAL SOCIETY.**—A meeting of this society was held on Nov. 13th, Mr. John Gay, the President, being in the chair.—Mr. Cecil R. Lyster showed two cases of Local Cancerous Disease which had been treated by the x rays at Bolingbroke Hospital. The first case was that of a man, aged 65 years, who came under notice on March 1st, 1901, suffering from a typical epithelioma of the lower lip. The rays were applied on March 5th, 6th, 7th, 8th, 9th, and 11th, for periods of 10 minutes, with resulting congestion. The ulcer was then discharging a thin serous fluid and a healthy granulating surface was beginning to make an appearance. Further treatment was discontinued until March 19th, by which time the congestion was disappearing, the ulcer being smaller, cleaner, and definitely not so hard as before. The rays were again applied on March 19th, 20th, 21st, and 22nd. Less congestion resulted, and the ulcer daily grew smaller and healthier. Treatment as hitherto was continued on March 25th and 26th, and on the first three days of April, marked diminution in the size of the ulcer and growth being manifest. The rays were applied for the last time on April 10th, by which time the ulcer had practically healed, and except for a slight scar the lip looked normal, although some slight thickening towards the middle line was still apparent. Since that time the patient, thinking he was cured, absented himself from the hospital until Nov. 13th, and it was then found on examination that the lip was quite healed but there was still some slight thickening in the middle line and he was advised again to undergo the treatment for a short time. The account of the second case was read by Mr. Lyster for Mr. Thomas Bryant. The patient, a woman, aged 43 years, came under Mr. Bryant's care in August, 1901, for a recurrent cancerous growth which involved the scar of an operation which had been performed in December, 1900, and which had manifested itself again about one month before Mr. Bryant saw her and seven months after the original operation. Her condition was as follows. The clavicular flap was the seat of tubercles of a florid red colour, and the lower flap near the original scar was dotted with similar tubercles. The upper flap near its axillary end was also the seat of a raised tumour of the size of a crown-piece, the surface of which was breaking down. In front of this tumour was a second one situated beneath the skin, with a convex surface and apparently infiltrating its deeper layers, as the skin over it was fixed. The patient complained of much pain at the seat of the disease. At the present time, three months after continuous treatment, it had to be reported that all pain had ceased and that this result was secured about two weeks after the treatment was commenced; and that many of the active tubercles had entirely disappeared, and all were disappearing. The ulcerating nodule, of the size of a crown-piece, upon which a scab existed when the treatment was started, had now healed under the scab and had flattened out. Mr. Bryant therefore considered that if the treatment was continued the acute form of the disease which existed in its recurrence would be entirely checked. The treatment was painless and could be employed in all cases where the disease was not otherwise suitable for operative treatment.—Mr. P. Macleod Yearsley then read a paper, entitled, "The Diagnosis and Treatment of Pain in the Ear."

**KIDDERMINSTER MEDICAL SOCIETY.**—A meeting of this society was held on Nov. 15th, Mr. J. Lionel Stretton, the President, being in the chair.—The President showed: (1) A Portion of the Sigmoid Flexure containing a tight cancerous stricture, removed from a woman, aged 42 years; and (2) a woman, aged 36 years, from whom he had removed the whole of the breast for a recurrent growth.—The President also read notes of a case of Death under Chloroform of a dark-brown mare, eight years old, well-bred, highly nervous, in excellent condition, suffering

from two large suppurating lumps over the elbow. As he had had no previous experience of anæsthetising horses he called in the aid of his usual veterinary surgeon together with a qualified assistant. The anæsthetic was commenced about 3 P.M. on Sept. 3rd after the mare had been hobbled and thrown down in the usual way. She had been prepared by giving her a bran-mash the night before and a meal of bran-and-chaff damped at 8 A.M. that day, this being her last meal. She inhaled the chloroform quite quietly; there was no struggling and the respirations were long and deep. The President had just removed the first lump and was preparing to sew up the wound when the veterinary surgeon informed him that she had stopped breathing, and all efforts to restore animation, including artificial respiration, strong ammonia, &c., were unavailing. The time from the commencement of inhalation was about 10 minutes. Methylated chloroform was administered, being given in the following way. A towel was laid on the ground under the animal's head, a large carriage sponge was soaked in chloroform and placed over her nose and mouth, and the towel was folded up over it. A second towel was folded over this. When more chloroform was required the outer towel was removed and the chloroform poured over the other one to soak into the sponge. The President said that it was not for him to question the methods employed, but it struck him at the time that to administer chloroform to a human being in such a manner would be courting disaster. He considered that pure chloroform ought to have been used and that it should have been administered slowly with the allowance of plenty of air.—Dr. O. C. P. Evans read notes of a case of Nephritis with Suppression of Urine. The patient, a man, aged 43 years, had been ailing for several years with attacks of nausea, vomiting, and headache, and when seen by Dr. Evans he was suffering from anasarca and slight ascites. On Oct. 12th he passed a small quantity of urine and vomited continuously all day; from that date till Oct. 15th no urine was passed, and from that date till his death in a state of coma on Oct. 23rd he passed only half an ounce of urine. The bladder was empty throughout. At the necropsy both kidneys were found to be much contracted; the capsule of the left one peeled off easily while that of the right one was somewhat adherent.—Dr. A. G. Naylor read a paper on Fractures which was followed by an interesting discussion.

**NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.**—A meeting of this society was held on Nov. 20th. Dr. E. C. Kingdon presided, and there was a good attendance of members when Dr. C. H. Cattle (who was a delegate from the society to the British Congress on Tuberculosis held recently in London) read a paper on the Relationship of Human to Bovine Tuberculosis. He first called attention to one or two fundamental principles. One of these was expressed in the first resolution passed by the Congress—namely: "That tuberculous sputum is the main agent for the conveyance of the virus of tuberculosis from man to man and that indiscriminate spitting should therefore be suppressed." And it was further recommended that all public hospitals and dispensaries should present every out-patient suffering from phthisis with a leaflet containing instructions with regard to the prevention of consumption, and should supply and insist on the proper use of a pocket spittoon. Dr. Cattle brought forward the following reasons for believing in the identity of human and bovine tuberculosis. 1. The bacilli found in each case were extremely alike both in form, staining reaction, and mode of growth under artificial cultivation. 2. These bacilli, whether of bovine or human origin, produced typical tuberculosis when injected into rabbits or guinea-pigs. 3. Tuberculin prepared from human tubercle bacilli produced a characteristic reaction when injected into tuberculous cattle just as it did when injected into man. The objections which could be urged against each of these statements were then cited, the similarity of the bacilli, it was said, did not amount to identity of form, the bovine bacillus was not beaded like the human one and it was also shorter and thicker. In pure culture there were some differences in the mode of growth and the bovine bacillus would not grow on glycerine-agar while the human one would. Also it was a fact admitted by all observers that while both bacilli were pathogenic for animals the bovine bacillus was much more virulent. With regard to the tuberculin reaction Koch explained that although the bacilli were different they belonged to the same group, the members of which gave a common reaction with toxins. Dr.

Cattle then dealt further with the different conditions of tuberculosis in man and beast, quoting from many observers. —After considerable discussion on the subject of the paper a hearty vote of thanks was accorded to Dr. Cattle for his very interesting address.

**MIDLAND MEDICAL SOCIETY.**—The second ordinary meeting of this society was held on Nov. 13th, Mr. Arthur Oakes, the President, being in the chair.—Mr. H. H. C. Dent and Dr. William Cassels were elected members of the society.—Dr. Walter Jordan showed a woman who had the symptoms of Spastic Paraplegia—exaggerated knee-jerks, ankle-clonus, and rigid spasm of the calf muscles on both sides, so that she walked entirely on her toes, and was unable to put her heels to the ground. She could get about only when helped by someone or by holding to the furniture. The history she gave was that five years ago while in a tramcar she had an attack of giddiness and her right arm and leg went numb. When she had to get out she found that she could not walk properly, and she reached home by holding on to the walls as she went. After this the difficulty of walking increased gradually up to the present time and the contraction of the calf muscles developed. In June of the present year she had another attack of giddiness and she fell. Since this the left leg, previously unaffected, had shown the same symptoms as had the right. When seen first in August the muscles of the right side of the face seemed weaker than those of the left, but this could not be observed at the meeting. The patient was 42 years old, married, and had had seven children, of whom two were living, five having died under 12 months of age. There were no symptoms of cardiac disease. The diagnosis was cerebral thrombosis, but that of embolism was preferred by a member in discussing the case.—Dr. R. F. C. Leith showed tube, plate, and microscopical specimens illustrating the Morphology of the Plague Bacillus and the Method of its Diagnosis in a suspected outbreak of the disease. He gave a short account of the evolution of its more characteristic shapes and referred to the Glasgow outbreaks and the importance of the rat as a disseminator of the disease.—Mr. L. P. Gamgee read a paper on Strangulated Hernia.

**ÆSCULAPIAN SOCIETY.**—A meeting of this society was held on Nov. 22nd, Dr. Arthur T. Davies, the President, being in the chair.—Mr. F. Swinford Edwards opened a discussion on the Treatment of Gonorrhoea. He favoured injections of mercuriol of 0.5, 1, or 2 per cent. For treating gleet he pinned faith to irrigation with a weak antiseptic regularly used night and morning. He said it was of the greatest importance to have the total urine collected for examination so that shreds, without discharge, should not be overlooked. If shreds were found to be settled in the glass these should be bacteriologically examined. The examination was almost certain to reveal the presence of the gonococcus. That knowledge should lead to an interdiction of sexual intercourse and that advice followed would prevent most of the cases of pyosalpinx. He recommended for the prostatitis rectal massage or irrigation, a most useful though difficult method.—A discussion followed, after which Mr. Edwards replied.

## Reviews and Notices of Books.

*The Life of Pasteur.* By RENÉ VALLERY RADOT. Translated from the French by Mrs. R. L. DEVONSHIRE. London: Archibald Constable and Co., Limited. 1902. Two vols. Pp. 293 and 336. Price 32s.

"La Vie de Pasteur," by his son-in-law, M. René Vallery Radot, has been already recommended to the notice of readers of THE LANCET. It is in every way an admirable book. On its publication it was pointed out how very much the charm of the work depended on its literary style and a fear was expressed that a thoroughly satisfactory translation would be almost impossible. The difficulties which had to be overcome or evaded were numerous and great, and any reader who is familiar with the original work and inclined to be critical with the present one may not unfairly ask himself, "Could I have been more successful?" For our part we

heartily welcome the present translation of the Life of Pasteur. It will be of use in affording to thousands of English readers an opportunity of becoming acquainted with the history of a great man and of a good citizen. Those who know him only by his scientific work will see that he was something more than a man of the laboratory and will understand in some measure why it was that he was so devotedly loved by his intimate friends. The fact that he placed the interests of his country before those of his own personal aggrandisement was very forcibly shown when he freely gave the results of his work without payment. It was, in his opinion, derogatory to a *savant* to become rich in such a way. It was a high ideal to hold in a mercenary age. Huxley estimated that Pasteur's researches on the disease of silkworms saved to France a sum exceeding in amount the indemnity which she had to pay to the Germans after the war of 1870. His delicate appreciation of character and his tolerance with religious views entirely different to his own are shown in Pasteur's relations with Littré who was formerly the chief exponent of Positivism in France and who is perhaps best known in England as the compiler of a great dictionary. The brief account given by Pasteur of the home life of this remarkable man is of the greatest interest. It shows Littré the philosopher and the original thinker living a quiet life and employing his few spare moments in cultivating his garden whilst quoting Horace and Virgil. In his literary work he was helped by his wife and his daughter, both good Catholics whose faith he respected. A crucifix hung in their working room and Littré knew too well, he said, what were the sufferings and difficulties of human life to wish to deprive anyone of the convictions which comforted them. It was as an outcome of this visit that Pasteur was led to give his opinion of Positivism and of the one thing lacking which he found in it. Positivism suggests altruism—a subordination of personality to sociability, it inspires patriotism and the love of humanity, but it does not take into account the most important of positive notions—that of the Infinite; and he who proclaims the existence of the Infinite—and none can avoid it—sums up in that affirmation more of the supernatural than is to be found in all the miracles of all the religions, for the notion of the Infinite presents a double character—it not only forces itself upon us, but it still remains incomprehensible. It is this humble and mystic spirit which so profoundly affected the life and work of Pasteur.

The book will be received with general interest; it is infinitely superior to the majority of biographies. No medical man who has the leisure should fail to read it. Those who have followed the advances made in science and in medicine which took place during the latter half of the last century will be pleasantly reminded of some of the most striking of the discoveries which were made during a very remarkable period and they will see exactly how the improvements were brought about and what a violent fight is usually necessary before it is possible to firmly establish one new fact in any domain of science. It is not necessary here to recall to mind the work done by Pasteur in connexion with crystallography and fermentation or the effects of his teaching on the long-vexed question of spontaneous generation, nor is it necessary to prove either that he was the means of revolutionising surgical dressing or that his researches on the attenuation of the virus of specific diseases have inaugurated a new epoch in medical practice. That his name would have been great had he done only one of these things is beyond cavil. He was, in fact, a genius.

A very great charm of the book is the way in which what may be called the minor characters are drawn. The work is so well done that the sketches, though slight, are veritable portraits—the work of a master hand. Pasteur's father is a case in point. We seem to know him and to love him—a man of determination, with a happy wit, kind, and genial.

Biot, the chemist, is another example. Many biographies are inordinately dull; this one is not. A man with little time for reading may find the book too long, but even for the busiest of men it is worth looking through, and no intelligent person with leisure would wish to shorten the book by a single page.

It would not be true to say that the translation of Mrs. R. L. Devonshire is not susceptible of improvement, and it would be easy to point out a number of cases in which some verbal alteration might with advantage be adopted. Such criticism is never difficult, but it is not always fair. It must suffice to say that the book as it stands is a very readable one. It contains a few brief and well-written explanatory notes which will be found of great service. There is a full, well-arranged, and excellent index of no less than 20 pages; the original book, it may be remembered, suffered from the lack of one. It is to be regretted that no complete bibliography of Pasteur's works and papers has been added, but it was scarcely to be hoped that a work involving such a great amount of research should be published as an appendix to an English translation of a book which was itself deficient in this respect. The portrait of Pasteur which appears on the frontispiece, although taken from the same source, is greatly inferior to the one which appeared in the original work and which was produced by Porcabeuf. The book is well printed and of light weight, and for the latter reason is much more convenient to read than is the original work.

*Surgical Diseases of the Kidney and Ureter, including Injuries, Malformations, and Misplacements.* By HENRY MORRIS, M.A., M.B. Lond., F.R.C.S. Eng., Vice-President and Chairman of the Court of Examiners of the Royal College of Surgeons of England; Senior Surgeon to the Middlesex Hospital, &c. With two Coloured Plates and upwards of 200 Engravings. London: Cassell and Co. In two volumes, Vol. I., pp. 682; Vol. II., pp. 670. 1901. Price two guineas.

WE may say at once that this work is the most complete, the most thorough, and the most satisfactory of any treatise on the surgery of the kidney and ureter with which we are acquainted. In 1884 Mr. Morris published a manual on the "Surgical Diseases of the Kidney," a little volume which met with the success which it deserved. At that date the published material on which to found a treatise on renal surgery was extremely scanty, but as the years have passed by the amount of literature bearing on this subject has steadily increased. At first Mr. Morris attempted to have abstracts prepared of every article connected with the subject appearing in this and other countries, but the labour has become increasingly arduous owing to the very large number of contributions relating to renal surgery. Mr. Morris has, however, pursued the same plan so far as was necessary to keep abreast with the advance of this branch of surgery, and the result of all this labour we have before us. The work naturally divides itself into two parts; the first, dealing with the kidney, is based on the manual published in 1884, while the second, treating of the surgery of the ureter, is entirely new.

The importance of a knowledge of the regional anatomy of the kidney is recognised by the author, who has devoted a chapter to it. A very useful diagram in this chapter is one from a dissection by Professor Arthur Robinson showing the relation of structures behind the kidney and in the ilio-costal space. A most important section is that dealing with the abnormalities of the organ, and the 65 pages which it occupies are none too many to describe the numerous anomalies to which the kidney is subject. There is certainly no other organ of equal importance which has a tithe of the varieties met with in the kidney. The author divides them

into the three groups of abnormalities of position, form, and number. Nowadays operations on the kidney are of such frequent occurrence that malformations of the kidney are of great clinical importance. As Mr. Morris points out, they are of importance—firstly, because malformed kidneys are frequently the result of fusion of the two kidneys; secondly, because a malformed kidney is generally misplaced; and thirdly, because when a misplaced kidney is also misshapen the difficulty of diagnosing the nature of this "abdominal tumour" is greatly increased and the danger of the adoption of harmful treatment is much enhanced, and he quotes a case reported by Durham where a man for four or five years was rendered miserable by a failure to recognise a misplaced and misshapen left kidney. Yet, if these cases of malformed kidney be important, still more important are the cases in which only one kidney is met with, for disastrous results will follow if nephrectomy is performed. Mr. Morris estimated from a consideration of nearly 16,000 necropsies that the proportion of cases in which congenital absence of one kidney is to be looked for is once in 2650 cases. A horseshoe kidney occurs about once in every 1000 bodies. The probability, therefore, of the congenital absence of one kidney is by no means great, but we have to add to this the likelihood of atrophy having occurred through disease.

Many times absence of both kidneys has been noticed in stillborn children, and Dr. Polk has recorded a case in which a young woman lived nearly 12 days after being deprived of her only kidney; but the author quotes a case recorded by Vieusseux of Geneva, in which a girl, 11 years of age, had suppression of urine for 17 months, followed by re-establishment of the flow of urine. This case must be extremely doubtful, and it is much more probable that the child was malingering.

Of late years much attention has been devoted to moveable and floating kidney. As Mr. Morris points out, these two terms are not used with the same meaning by all who use them; he considers that they should be employed with a strictly clinical meaning. If the natural movements of the kidney simply become exaggerated Mr. Morris calls it "moveable," while a "floating" kidney, whether it is provided with a mesonephron or not, "moves freely forwards so as to rise or 'float' towards the anterior abdominal wall," both vertically and laterally. As to treatment, the author considers a belt or bandage to be useful, but he points out that great care has to be taken that the kidney is replaced before the belt is applied, and he cites a case where a lady wore a belt with ease and comfort while she was under his daily supervision, but when the patient passed out of his care severe renal crises occurred, necessitating prolonged chloroformisation, yet this lady was completely cured by nephropexy. The operation of nephropexy is described in the second volume, and of all the methods referred to Mr. Morris prefers, as a rule, to attach "the kidney by means of three sutures dipped deeply into the posterior surface of the organ and running for from three-quarters of an inch to an inch in its substance." He considers silk to be the best material and he has had up to the present 57 cases of this operation without a death.

Space will not permit a detailed examination of every chapter of this valuable work, but we may refer to a few points which we have specially noted. "Urinary fever" is of great interest (both theoretical and clinical) to the surgeon, and a full discussion of this difficult subject comes well within the scope of the work. The frequency of this condition may be gauged by the fact that Guyon found that urinary fever occurred in one-sixth of a large number of cases of simple dilatation of the urethra by a bougie. The author considers that a large proportion of these cases depend upon infection, but that others cannot at present be

attributed to this cause and that in many of these the nervous element plays the chief part.

Another important subject that is very fully treated is hydronephrosis. Mr. Morris considers that this condition is congenital in about one-third of the cases, and of the acquired variety the vast majority are due to malignant disease of the pelvic organs, especially of the uterus. The author quotes an instance of a hydronephrosis containing 30 gallons of liquid. The best site for puncture of a hydronephrosis Mr. Morris considers to be, for the left kidney, immediately anterior to the last intercostal space. On the right side this point is too high, as the liver would be perforated, so a spot is advised halfway between the last rib and the crest of the ilium and between two inches and two and a half inches behind the anterior superior iliac spine.

A large portion of the second volume is occupied by an account of the operations on the kidney. For total nephrectomy, for nephro-lithotomy, and nephrotomy Mr. Morris employs an incision four and a half inches long parallel with, and three-quarters of an inch below, the last rib. Should more room be required a vertical incision is superadded which may run upwards or downwards from the first, starting about an inch in front of its hinder extremity. Occasionally, especially for a large pyonephrosis, the author removes the last rib.

The chapters on Renal Calculus and on Calculous Anuria are especially good. The value of surgical interference for the latter condition is even now not fully appreciated by the profession, and a perusal of this chapter should do much to assist the treatment of these cases which are so amenable to surgical interference.

The last 370 pages of the second volume are devoted to the surgery of the ureter. Though renal surgery is of recent growth, yet still more modern is ureteral surgery, for it is less than 20 years old. The abnormalities of the ureter are very numerous, and one of the most interesting of these is the ending of a ureter in the urethra, the vagina, or even the rectum. Another curious condition met with is an obstruction of a ureter by compression by an abnormal renal artery or vein. The value of ureteral catheterisation is very differently estimated by different observers. Mr. Morris considers that, in some cases valuable information may be obtained by this method, but that since the information it affords is not trustworthy and it exposes the patient to very definite risks the routine employment of ureteral catheterisation is most undesirable, and he condemns it emphatically as a mode of treating hydronephrosis or pyonephrosis or ureteral stenosis.

The important operation of ureteral anastomosis is very fully treated. Several different methods have been devised and employed for this purpose. The author considers that Van Hook's method of lateral anastomosis is on the whole the best, but when there has been much loss of ureter, then Boët's operation of oblique end-to-end anastomosis is preferable.

The book contains a vast amount of information but it is thoroughly digested and therefore the work is very readable; a very complete index is appended.

Mr. Morris had at first intended to give a bibliographical list at the end of each subject, but as he found that each of these lists would run into several pages of print he has simply given a list of the names of the authors referred to and quoted in the text. Though this list may be interesting as showing that more than 1000 authors have been cited, yet as merely the names of the writers are given without the titles of their works or articles it will be, we are afraid, of very little practical value.

We must conclude this lengthy notice of an excellent work by saying that it worthily represents the present state of our knowledge of an important subject.

*Practical Histology.* By J. N. LANGLEY, M.A., Sc.D., F.R.S., Fellow and Lecturer of Trinity College, Lecturer on Histology and Deputy Professor of Physiology in the University of Cambridge. London: Macmillan and Co. 1901. Pp. 340. Price 6s.

THE plan of this work must be familiar to the many generations of Cambridge students who have worked with the Practical Physiology and Histology of Professor Foster and Professor Langley. It is, indeed, composed in great part of the histological portions of that work together with the directions supplied to students in Professor Langley's practical histology classes. Much of the book has stood the test of some 20 years' use, while all the most valuable modern methods have from time to time been incorporated. In many respects the book is remarkable and the plan of treatment of the subject is original and very thorough. Anyone wishing to gain a knowledge of histology and of histological methods without the aid of any demonstrator would do better with this book than with any other with which we are acquainted. It combines the functions of the usual laboratory handbook with the comments of the demonstrator and the descriptions of the systematic treatise on histology. It is in this last respect that the book is weakest, and, indeed, the absence of any plates prevents it from being a complete substitute for a systematic treatise, but as the book is not intended to replace such works it is hardly fair to find fault with it on this ground. Preliminary chapters on the use of the microscope, exceedingly practical and written in non-technical language, and on the various methods of hardening, embedding, and section-cutting are followed by chapters giving directions for the systematic examination of the various tissues and organs, with descriptions not only of the methods employed but also of what is to be observed in the preparations. The book is rich in cross references which are absolutely necessary in order that the fullest advantage may be taken of the instructions, though we must confess to a feeling of scepticism as to whether students will use them as they should. The methods for the examination of the central nervous system are very well and fully described, while the chapter on the Spinal Bulb is probably the best in the whole book. This chapter contains possibly the best description of this portion of the cord which has hitherto been published. Most works on histology skip this difficult subject entirely or allude to it in a most perfunctory manner, but here is a full and clear account of the bulb, such that a student with a knowledge of development who worked carefully through the various sections described could gain an intelligent and accurate knowledge of the subject. We know of no other book of which this could be said. We, of course, expect a good book from Professor Langley, and there is no doubt that the present work is excellent. The printing and type are, as usual with the publishers of this book, most satisfactory.

*Allgemeine Physiologie: Ein Grundriss der Lehre vom Leben.* (*General Physiology: An Outline of the Science of Life.*) By MAX VERWORN, Professor of Physiology in the University of Göttingen. With 295 Illustrations. Third Revised Edition. Jena: Gustav Fischer. 1901. Pp. 631. Price, unbound 15s. or half-bound 17s.

THE first edition of this new philosophical outline of the phenomena of life was published in 1894. A second edition was called for in 1897 and was ably translated into English by Dr. Frederic Lee, the Professor of Physiology in Columbia University, and published by Messrs. Macmillan. The present third German edition has undergone revision and some new matter has been introduced, but the author, whilst keeping recent work in view, has evidently endeavoured to avoid any material increase in the size of the volume.

The object of Professor Verworn's treatise is to give, not

a minute and special account of any one organ or system of organs or of any special function, but a picture of the general phenomena of life, and especially a description of those processes which appear in their simplest form in the cell, and consequently in the lower animals, and which gradually attain complexity in the higher. He therefore dwells at considerable length on the properties of protoplasm, on the phenomena of metabolism in protoplasm and in the various forms of cells, on the phenomena of transformation of energy as exemplified in the effects of the exposure of cells to chemical agents, light and heat, and on the elimination of energy in the cell as exemplified by motion, growth, and the evolution of heat, light, and electricity.

The question early and naturally presents itself, How did life commence upon this globe? and Professor Verworn, whilst giving the hypothesis of Haeckel, Pflüger, and others, with which he is in evident sympathy, that the earth in cooling from a state of incandescence gave origin to cyanogen compounds which have various points of contact with protoplasm, has not overlooked the essay of Mr. F. J. Allen who, in an interesting article contributed to the Proceedings of the Birmingham Natural History Society, maintained that as the earth cooled easily decomposable compounds were contained in the air and were dissolved in the waters; that, for example, discharges of lightning generated ammonia and the oxides of nitrogen, which were absorbed and precipitated by rain. These uniting with the chlorides, sulphates, and phosphates of the alkalies and alkaline earths afforded an opportunity for nitrogen to form various combinations with them and with oxygen, the transference of oxygen from the free to the combined state being probably effected, as at the present time in the blood, through the instrumentality of iron.

The mechanism of absorption and secretion, it is pointed out, are intimately connected with the processes of diffusion and osmosis, and a new section is here introduced to elucidate the phenomena of defecation. The recent experiments of Rhumbler have shown that a solid substance can first be taken up by a drop of fluid and then can be eliminated, for if a drop of chloroform and water be brought into contact with a slender glass rod coated with a thin layer of shellac the chloroform (in which shellac is soluble) in the fluid rises round the rod, just as a bacterium is ingested by a leucocyte or as a thread of an alga is engulfed by an amoeba. Gradually the shellac is removed from the glass rod by the solvent action of the chloroform, but pure glass is repelled by chloroform in water, consequently the drop separates itself from, or in other words expels, the glass rod just as the amoeba discharges the indigestible remains of the alga.

This reference to a solitary phenomenon in inorganic nature as affording an explanation of the almost universal process of defecation in living beings seems somewhat strained, for considering the variety of substances which we consume as food some of the intestinal cells must have many likes and others many dislikes or we should never take up new materials or get rid of the old.

The investigations of Nernst into the physical conditions that exist when solid bodies are dissolved in fluids are considered. Nernst showed that the molecules of the soluble body move with a certain velocity in the solvent, striking against each other and against the walls of the vessel and rebounding, thus producing the so-called osmotic pressure. The result of this is a tendency to disintegration, a continuous change in the disposition of the atoms or groups of atoms, which again leads to the evolution of electricity and so to the discharges of the torpedo and the electric eel.

The section on ferments has been, as compared with the last edition, extended, the researches of Emil Fischer and of E. Buchner being introduced. The relation between the ferment molecule and the compound on which it acts, says

Fischer, closely resembles that between a lock and key, for only that key which is made for the lock will open it and will only open that particular lock. This adaptation is so exact in the case of the enzymes that they will not act on even the isomeric compounds of a given substance. Emulsin, for example, the enzyme that is contained in bitter almonds, is only capable of splitting up the  $\beta$ -methyl-glycoside, but will not decompose the  $\alpha$ -methyl-glycoside, the molecules of which, though identical in number with the former, have a different arrangement: on the other hand, maltase can only break up the  $\alpha$ -methyl-glycoside and has no action on the isomeric  $\beta$ -compound. Buchner's experiments have modified the old view that the disintegration of the grape sugar molecule into alcohol and carbonic acid gas is due to the metabolism of, and in, the cell itself, for he has obtained a juice by pressure which contains no yeast cells and yet for a short period possesses strong fermentative powers.

The observations of Winkler showing that the extract of spermatozoa completely freed from spermatozoa will occasion sufficient excitation to induce development up to a certain stage in the ovum of the echinus are noted, as well as those of Schaudinn on the alternation of generations in coccidia. The chapter on Death is thoughtful and original. No satisfactory explanation of that very constant phenomenon can as yet be given. Professor Verworn does not accept the view of Weismann that the Protista are immortal, basing his objection on Maupas's observations which show that although multiplication by division may go on for a long time and through many successive generations, yet that ultimately death invariably takes place unless sexual fertilisation occurs.

In the chapter on Stimuli and their Actions Professor Verworn places before the reader an interesting account of the effects of thermal, chemical, electrical, mechanical, and photic stimuli on the lower organisms, and the work closes with an attempt to give a theory of the mechanism of life. It is possible that with improved chemical knowledge we shall be able to follow the processes of integration and disintegration in the cells of which the body and its organs are composed, but it must be confessed that many hiatuses exist in our present knowledge and that as yet we can but dimly see the succession of changes that take place in those dead compounds which we ingest as food and which as they pass through the body after forming part of its living structure are again cast out as dead material. Professor Verworn has produced an extremely interesting book, and we can only wish him sufficiently long life to see many of his suggestive ideas demonstrated to be facts.

#### LIBRARY TABLE.

*Diet in Relation to Age and Activity, with Hints concerning Habits Conducive to Longevity.* By Sir HENRY THOMPSON, Bart., F.R.C.S. Eng., M.B. Lond. London: Frederick Warne and Co. 1901. Small 8vo, pp. 126. Price 2s. 6d.—This is a second and enlarged edition of a work which consisted of the first part only of the present book: the second part, newly written, in the author's eighty-second year, has been added as the result of much additional experience of life and a stronger conviction of the truth of what was set down 15 years ago. As a frontispiece there is a portrait of the author at 80 years of age and a glance thereof will show his readers that he has evidently practised what he preaches and that he has attained a healthy and vigorous old age. We may be sure that, even though we may differ sometimes in opinion from the views expressed in this last publication, they are the result of a wide and ripe experience and years of close observation. Nothing has been set down in haste or without due consideration. The strict vegetarians find no unqualified support of their

tenets here, and as regards the *quasi*-vegetarians who, while assuming an air of mild superiority over those who eat "animal food in its grosser forms," do not scruple to consume the choicest and most concentrated of animal foods—eggs, milk, butter, and cheese—the author has nothing but contempt for their pretences. In fact, he is averse to any dogmatic limiting of selection of foods and drinks. In passing, he expresses a conviction of the absence of necessity for alcohol as a beverage. He refers to the cruelty of stuffing geese to procure *pâté de foie gras* for the gourmet, and recommends the Anti-Vivisection Society to turn its attention to this matter. Sir Henry Thompson deprecates increased eating as a means of keeping up the strength of those who are advancing in years, and particularly objects to the repeated and general use of concentrated forms of animal nourishment for the aged. Over-nourishment in old age is apt to lead to pains and aches due to impairment of excretion, and a long-protracted course of hyper-nutrition will end in an attack of gout. Even artificial teeth are not to be considered an unmixed blessing, for by a provision of Nature the teeth begin to decay and become useless just when the system begins to thrive without much animal food of coarse fibre. Teeth are not objected to from an æsthetic point of view, however. Indigestion, says Sir Henry Thompson, is mostly not a disease, but an admonition. "It is the language of the stomach, and is mostly an unknown tongue to those who are addressed." It means that the individual has not yet found his appropriate diet. "There is no food whatever which is wholesome in itself. That food only is wholesome which is so to the individual." The second part of the book is full of excellent advice for our old folks. The author, more emphatically than ever, insists that "the quantity of food taken is to be gradually diminished in proportion to decreased activity of body and mind." There follow details of the kind of life that all elderly people should lead. The subject of their dietetics is skilfully handled, and details of exercise and recreation are carefully discussed. The book is not one for medical men alone; it is not at all technical, and may be read with much advantage by everyone who has attained the age of 50 years and wishes to reach the ninth decade in fair health and activity.

*Public Health and Housing.* By JOHN F. J. SYKES, M.D., D.Sc. Edin., medical officer of health of St. Pancras, &c. London: P. S. King and Son. 1901. 8vo, pp. 216. Price 5s.—Of the publishing of books nowadays on the subjects of public health and hygiene, there seems to be no end; good, bad, and indifferent, original works and mere compilations—their name is Legion. Few, however, have as good a *raison d'être* as this little work by Dr. Sykes, the well-known and able medical officer of health of St. Pancras. The book is well bound, the print is large and clear, and the general arrangement of the letter-press is excellent. It is, moreover, full of tables of statistics and diagrams, all useful to the up-to-date medical officer of health, wherever he may live. The author points out first that our methods of housing ourselves in large cities are undergoing a change. Owing to the influx of people from country to town and from central city to peripheral suburbs, the population, ever-increasing, is housing itself in flats, boarding-houses, hotels, subdivided villas, and tenements more than ever. Now, the statutes provide already by-laws regulating overcrowding, cubic feet of air, amount of light, and so on, but these by-laws at the present day, according to the author, require to be reconsidered and their standards altered "more in consonance with physiological requirements than with the mere packing together of human beings." It is obvious that a deterioration of the health of any class, rich or poor, reacts detrimentally on all the other classes, and that the housing question exerts a powerful

influence on the health and vigour of people generally; public health is influenced, in fact, "not only by overcrowding and misusage of houses, but also by the construction and arrangement of dwellings." The author deals with known effects of certain conditions of life, e.g., the effect of the density of population or of certain types of dwellings, on mortality. "Back-to-back houses show an excess in mortality from all causes," as do stable-dwellings, but not in the same proportion. A large part of the book is devoted to the consideration of direction, aspect, and width of streets, and heights of houses and their influence on the public weal and to the arrangements of dwelling interiors, their ventilation and lighting included. The author, considering the fact that *anyone* may design and build, or have built, a house for the accommodation of many or of few, is of opinion that more regulation and control of the builders' economies of light and space ought to be exercised by the public authorities. He also thinks that certificates of efficient drainage of newly-built dwellings of every description should be required in addition to the certificate of water-supply which is already and always exacted. The way of life in those ordinary houses which have been converted into "floor-lettings" without adaptation is deplorable. At the end of the book are appendices of regulations, by-laws, and definitions. We heartily recommend the work to all thoughtful medical men and more especially to those who are engaged in public health work.

*Kitchen Physic.* By W. T. FERNIE, M.D. Durh. Bristol: John Wright and Co. London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. Pp. 596. Price 6s.—Dr. Fernie has managed to cram into this comparatively small book many curious and agreeable facts, much as he would like to have a kitchen filled with pleasant and beneficial herbs and spices. His aim has been to supply a systematic description of culinary methods and results, associating the materials and artifices of the kitchen with the maladies and classes of malady for which they may be most profitably employed. Not only, however, has the author gathered together a vast amount of material learning with regard to properties and uses of herbs and meats, but he has embellished his knowledge by setting it out with a pleasant trimming of allusions and quotations that give his book an unusual charm. The book is no hurried effort; it is a full, quiet, and scholarly work wherein a medical man may find useful hints in an auxiliary branch of his art too often ignored or neglected. No practitioner underrates the importance of diet; few can enter into details of its constitution and preparation. For all who would enlarge their knowledge or skill in such matters Dr. Fernie has provided a rich store of reference and information.

*The Care of the Consumptive.* By CHARLES FOX GARDINER, M.D., Fellow of the New York Academy of Medicine; Member of the American Climatological Association. New York and London: G. P. Putnam's Sons (the Knickerbocker Press). 1900. Small 8vo. Pp. 182.—This little book is intended for the reading of nurses, of those who have the care of consumptives, and of the patients themselves. It is a common-sense and non-technical explanation of pulmonary phthisis and an advertisement of the sanatoriums of Colorado State and of the town in which the author is practising. This town is situated at an altitude of 6000 feet and is the health resort of numerous Americans every year. The author, while expatiating on the glorious climate of Colorado and on its virtues in the treatment of consumption, warns intending visitors "not to expect to get well in six weeks," and quotes that "a change of climate must not be expected to produce its full effect in less than two years." A chapter is devoted to the dieting of consumptives and no one who reads the book will fail to be struck with the great difference between the author's methods and those employed at Nordrach and other

continental sanatoriums. But Dr. Gardiner does not appear to expect to cure his phthisical patients in a comparatively short time. The author points out that it is probable that "very many people have consumption and that the disease is arrested before there are any symptoms marked enough to notice. .... It has been stated that from 50 to 60 per cent. of civilised people probably are tubercular or have been so at some time in their lives," though their illness was perhaps not recognised for what it was. Writing of infection the author states as follows: "I think it is a mistake to think that consumption hits one like a bullet in a battle because the germs are flying around thickly and one is under fire, as it were. The probability is that all are hit and only those who are in a bad condition physically develop the disease, while those in good condition do not, the good and bad conditions being only terms to express an idea of cell resistance and not the actual appearance of people, their feelings of good or ill-health, &c." It will be seen that although the literary merit of this little book may be open to criticism, at all events it is easy to read and full of sound common sense. There is a description of the author's idea of how an invalid's day should be spent and the remarks on exercise therein form a valuable piece of advice. There is also a detailed account of the method in vogue at Nordrach, written by a former patient of Dr. Otto Walther. On the treatment of hæmoptysis the author writes: "The general panic that ensues sometimes when the invalid has lost a little blood is deplorable; often the whole house is in an uproar; ..... the room is close and hot, and any remedy ..... such as salt on the tongue, ergot, &c., all of which are useless, will be immediately tried. The mental agitation induced ..... is to the patient really much more injurious than being actually neglected. .... The first thing to do is to send quietly for the doctor ..... to cheer and reassure the patient. ...." With all this most medical men will heartily agree. With regard to the hypodermic use of ergot it may be pointed out that in the recently published exhaustive work edited by Dr. Hale White on Pharmacology and Therapeutics we read that theoretically "ergot is scarcely likely to benefit a condition like hæmoptysis, inasmuch as the drug distinctly raises the pulmonary blood-pressure." The last 50 pages of the book deal with the cost of living in Colorado and the manners and customs of social life there. For those to whom money is an object there seems to be little to recommend a sojourn in Colorado, and English consumptives need not go so far away. In fact, those who are well informed in matters relating to the open-air cure of phthisis are looking forward to the time when we may confidently undertake the cure of our consumptives in any climate except those of the great cities.

*Surgeons and their Wonderful Discoveries: Stories of Chloroform, of the Invaluable Antiseptic Treatment, the Finsen Light.* By F. M. HOLMES, author of "Chemists and their Wonders," "Engineers and their Triumphs," &c. London: S. W. Partridge and Co. 1901. Pp. 160. Price 1s. 6d. —This little book is written for the public rather than for the medical profession, but, as is not always the case where an uncritical audience is being addressed, the information given is accurate as well as interesting. The title, for example, states truly the contents of the book. We are introduced to the development of modern surgery and not to those miraculous stories that we from time to time quote, chiefly from American sources, of eyeballs which have been removed, cleaned, and put back; of seven children at a birth; of fasting men and entranced women, to quote instances of "wonderful discoveries" which the lay press loves to dilate upon. Mr. Holmes describes the discovery and surgical application of chloroform, the invaluable developments that followed upon Lister's work, the use of the Roentgen rays, Finsen's light treatment of lupus, and so

on, and has produced a sober record of modern surgical achievement, the examples that he has chosen well illustrating his prefatory statement that "everywhere surgery, like engineering, seems on the alert to win constant triumphs of enterprise and skill." We do not often recommend that a book dealing with medical topics should be placed in lay hands, but we think that the public would be in a better position to appreciate what is really done for them nowadays by modern surgery if they read Mr. Holmes's little book. The introduction of a certain amount of names is inevitable inasmuch as actual cases are not infrequently given in proof of the general statements made, but nowhere is any fulsome recommendation of a particular practitioner to be found.

#### JOURNALS AND MAGAZINES.

*Journal of Pathology and Bacteriology.*—The November number completes Volume VII. and affords a good example of a record of the work that is being done by English-speaking pathologists. It is sometimes stated that little pathology is at present being done outside France and Germany, but we have here ample evidence that the most varied work is being carried on and that our pathologists, young and old, are taking every opportunity of extending their work and experience and that they are producing results of permanent value. The number opens with an excellent article by Dr. E. W. Ainley Walker, Radcliffe Travelling Fellow of the University of Oxford, who writes on the Production and Specific Treatment of Typhoid Infection in Animals. He maintains that anti-typhoid serum is a specific protective agent and that it is certainly much more powerful than Jez's extract of tissues from animals inoculated with the typhoid bacillus. This serum is not only protective but curative to a marked degree: "a disease can be produced in animals closely similar to the typhoid fever of man, and the injection of anti-typhoid serum can prevent the development and fatal termination of this disease in rabbits." Malvoz's theory that the agglutinins of the blood of immunised animals are neither more nor less than bodies formed in the normal growth of the bacteria in their culture media is discussed and rejected. Dr. William G. Savage (Bristol) contributes an article on Pseudo-Clumping in Cultures of the Typhoid Bacillus in which he argues that in broth there are substances which are capable of causing agglutination in particularly susceptible races of the typhoid bacillus and that the peculiar differences observed in the agglutination of different races of the typhoid bacillus are probably ephemeral and acquired and are partially dependent on the natural clumping power of the broth. Dr. W. D'Este Emery (Birmingham) makes a contribution to the Pathology of Ringworm, especially in relation to the chemical action of the products of microsporon Audouini. As the result of a series of very interesting experiments he comes to the conclusion that the ringworm fungus acts in two ways—first and chiefly by the splitting apart of the component fibres of the hair and by the pressure exerted on the shaft and bulb; secondly, chemically by means of a toxin which induces some inflammation of the hair follicle. Some observations on tuberculosis of the cervical and bronchial glands by Dr. Hugh Walsham will be of special interest at the present time to those who maintain that the tubercle bacillus or its involution forms is always found in scrofulous glands. Dr. Walsham describes the phases through which the bacillus passes when held in these glands and describes the histological changes produced in these positions. This paper is very well illustrated. Dr. J. C. Muir, in an article on the Condition of the Blood and Marrow in Chronic Arsenical Poisoning, with Special Reference to the Occurrence of Cutaneous Pigmentation, contributes the results of some work carried out under Professor Sheridan Delépine, who has made the

question of blood pigmentation one specially his own. The work was carried out during the outbreak of arsenical beer poisoning in Manchester, and the results arrived at throw some doubt on the view generally accepted that pigmentation is due to the destruction of hæmoglobin or red cells. Not only is the skin an important factor in the production of hæmoglobin but the erythroblastic function of the marrow is more easily stimulated in the presence of a large store of cutaneous melanin. Dr. Joseph Griffiths records a case of Fibro-cystic Tumour of the Breast in which the majority of the cysts were lined by stratified epidermis-like cells. This paper is illustrated and is of considerable interest in regard to the transitional nature of epithelium in different positions. Dr. William Whitridge Williams of Baltimore records a case of Sacciform Aneurysm of the Descending Aorta projecting into and occluding the Left Bronchus. He points out the important part which such an obstruction plays in determining tuberculosis and other diseases set up by specific organisms. Dr. F. M. Sandwith of Cairo gives an interesting account of Three Fatal Cases of Pellagra with Examination of the Spinal Cords. Working with Dr. F. E. Batten, he believes that the sclerosis of the posterior columns is essentially a chronic process, that it is of root origin, and that the increase of connective tissue in the posterior columns is secondary to the degeneration of the roots. Dr. Henry F. Bellamy gives a most interesting and well-illustrated account of the myeloid tumour of tendon sheaths—a condition perfectly distinct from the ordinary sarcomatous myeloid tumour. He considers that this form of growth is due to the proliferation of the endothelial cells of the blood-vessels and that it must be looked upon as a myeloid endothelioma. An appreciative notice of the late Dr. Walter Myers, who lost his life whilst studying yellow fever at Pará, completes this number of the journal.

*The Veterinary Journal.*—The November number of this journal is always of considerable interest, as the introductory addresses delivered at the various veterinary colleges are then reported in full and we have an opportunity of observing the work, the hopes, and the anticipations of those who are engaged in studying and teaching veterinary medicine and surgery. There is evidently a feeling that in some way or other the veterinary profession should participate in the advantages for special study now being offered by the universities, both those of ancient date and those of more recent foundation. There is certainly every reason that there should be a closer coöperation between the veterinary schools and the universities, and that those who wish to undertake the more scientific part of the profession should be encouraged to carry on some part of their early study under specially qualified teachers. Professor D. J. Hamilton of Aberdeen University, while protesting against being thought "a mere visionary and optimist hoping for things that are impracticable," asks, "Why is it that, while our universities grant degrees to practitioners of human medicine, to those following arts and science, and so on, as yet you have not claimed an equal right for comparative medicine?" and Professor James M'Call quotes an opinion of Dr. Allen Thomson, late professor of anatomy in Glasgow University, to the effect that "the day would come when the Government of the country would see it to be to the benefit of all concerned to affiliate the veterinary colleges to the universities of the country." Two interesting papers, one by Professor Baumgarten on the Relations between Grapes (ox) and Tuberculosis (man), and the second by Professor Sheridan Delépine on the Communicability of Human Tuberculosis to Cattle, are here reprinted, the one from the *Berliner Klinische Wochenschrift*, the other from our columns. Other papers and abstracts make up a very interesting number.

*Journal of the Association of Military Surgeons of the United States.* Edited by JAMES EVELYN PILCHER. Vol. X.

No. 1. Carlisle, Pennsylvania: The Association of Military Surgeons. August, 1901. Five dollars per annum in advance. —This publication does not call for any extended notice on our part. The Spanish-American war has created a new era in American military medicine, and one of the main objects of this journal is, in addition to publishing the proceedings and papers read at the meetings of the association, to diffuse information about, and invite coöperation with, the work done and doing in this respect in the United States and elsewhere. A considerable portion of the journal is, of course, taken up with the constitution and by-laws of the association, the names of the officers, reports of committees, and a nominal list of the members of the association, and brief memoirs of such as have died, and so forth. This part is followed by the president's annual address and the papers read, with the discussions thereon, at the last annual meeting of the association held this year at the capital of the State of Minnesota. This latter portion is worth reading, especially the pages containing observations about army rations in China and the tropics, abdominal gunshot wounds, cases of brain injury, and the articles on hospital equipment for field service.

## New Inventions.

### THE "TREXOPHYTON" TRUSS.

THIS truss for inguinal hernia, which is made by Messrs. Maw, Son, and Sons, 7-12, Aldersgate-street, London, E.C., has been devised by Colonel Day, R.A.M.C., and he has employed it on many occasions for soldiers in the field with very satisfactory results. The truss consists of a triangular leather pad which lies over the hypogastrium extending outwards laterally so as to press over the whole of the inguinal canals. The triangle lies with the base upwards and from the extremities of this base straps pass round the waist.



The pad is divided vertically into two halves, connected at the upper part by three small straps while below is a circular aperture which surrounds the root of the penis and scrotum; below this at the apex of the triangle is a band which is fastened at its extremity to the waistbands. We have had an opportunity of trying one form of this truss on a very troublesome

double inguinal hernia which had defied all the ordinary trusses and we were much pleased with the result.

A padded waistbelt would probably be more comfortable than the simple leather strap provided.

The mode of adjustment is shown in the figure, and is effected as follows. The testicles and penis are passed through the circular aperture and the straps of the longitudinal division are buckled. By simply encasing the hernia this truss acts like a second skin, and instead of pressing into one particular spot gives uniform support over the whole abdominal wall. The truss is very comfortable to wear, and after using it for a few days patients state that they do not feel that they have it on. Also, after some weeks' use the hernia does not come down at all readily. In two cases in which the inventor has tried it the hernia has not recurred. While wearing this truss a man can kneel, jump, ride, and perform gymnastic exercises. This instrument has been found most acceptable to the working-man and to every one whose occupation renders stooping, kneeling, or lifting necessary. The ordinary truss impedes all these exercises and especially walking. Many patients say that after putting on the Trexophyton truss they have had a long walk with comfort. No. 2 "Trexophyton" truss is said to be a great improvement on the original one, which was too cumbersome and is only used now for cases which have been neglected. The specimen submitted to us appears to us to have been of the earlier form.

# THE LANCET.

LONDON: SATURDAY, NOVEMBER 30, 1901.

## The Ideal Direct Representative.

THE seventy-second session of the General Council of Medical Education and Registration commenced its sittings on Tuesday last, and the proceedings, as already reported in our columns, promise to be full of interest, while there is one circumstance of the present session which lends particular importance to the deliberations. In the course of a few days we shall be in the throes of the election [of Direct Representatives of the medical profession for England (including Wales) and Scotland upon the General Medical Council, so that the proceedings of the Council will be watched with more than usual keenness by those of our readers who have near their hearts the interests of their profession. They will take note of how the work of the Council is done and also of the part played by the Direct Representatives. For they will have to make up their minds how far the definition of the duties of the Council which has hitherto been accepted, at any rate by a large majority of the members, is right and sufficiently comprehensive. There has been for some time a growing feeling that the work of the General Medical Council has not been satisfactory, that time has been spent in discussing and re-discussing matters of minor importance, while subjects affecting the relations of the general practitioner to the public have received insufficient attention. The doings of the Council at the present session should be strictly scrutinised to see how far this feeling is based upon facts; how far the Direct Representatives of the profession take a wide view of their responsibilities; how far they assist by the judicious voice which gains adherents the general business of the session; and how far their presence is responsible for a better understanding by the Council of the needs of the medical profession as a whole. The system of direct representation, about the value of which in good hands we have no doubt, is to some extent upon its trial when three new representatives out of five are about to be chosen.

We have before now taken upon ourselves the responsibility of indicating to the medical profession which of several candidates should be chosen as their Direct Representatives on the General Medical Council; and, looking back upon what we have said, and reconsidering the work and *personnel* of the gentlemen who have been chosen, we have a gratifying feeling that we have always given sound advice. We do not, however, propose on this occasion to pick out any candidates as better than, or inferior to, their rivals. There is really nothing to choose, as far as we can see, between the gentlemen before the constituencies. Apparently all of them have made up their minds to have nothing to do with the registration of midwives, while some of them have arrived

at this opinion after being concerned in the drafting of Parliamentary Bills or schemes of one sort or another for the registration of midwives. Most or all of them desire to promote the amendment of the Medical Acts in directions which would curtail the present licence of quackery, while several have done work in certain directions of reform which have been indicated for years in our columns and in those of our medical contemporaries. We do not wrong the candidates by saying that we can scarcely consider any of them ideal as Direct Representatives upon the General Medical Council of the whole medical profession. And if we attempt to draw a picture of the ideal direct representative our readers will understand that we do so without intending our remarks to have personal application, but only desiring to illustrate in an obvious way our conception of the principles of direct representation and our high hopes for its accomplishments in favourable conditions. Firstly, then, a direct representative should, in our opinion, be a general practitioner, although Mr. VICTOR HORSLEY, whose original candidature we espoused warmly and whose presence on the Council has been justified over and over again, happens to be a consulting surgeon. When Mr. HORSLEY was elected to the Council no general practitioner opposed him; while he was in actual occupation, if we remember right, of the chairman's seat at the Medical Defence Union, a position giving him an intimate knowledge of the ins-and-outs of the general practitioner's life. Mr. HORSLEY's election is not in question at the present moment, and when it becomes so he will find us cognisant of the value of his services and of his acquaintance with the practical problems of the medical career. Our ideal candidate should, then, be a general practitioner and one of influence in his district. We do not think that it much matters whether he resides in London or not, for the constituency which the Direct Representatives stand for is so large that it is ridiculous to consider that five candidates, however widely scattered their places of residence, can reproduce at the Council any territorial expression of feeling. The ideal direct representative should be a man of sound general and medical education, while, in our view, he should also be a man of culture. Neither the forcible democrat nor the windy altruist can serve the purposes of the profession at the council board of the General Medical Council. More than a conviction of being in the front rank of reform is required: a logical mind and a gift of expression are necessary. For the Direct Representatives in many questions will find themselves pitted against the representatives of the old universities and corporations, some of whom will have spent their lives in an environment calculated to make of them instructed and urbane debaters. The direct representative must be able to take his part in dialectics with the same good taste. He must, in fact, be able to meet his fellow-members of the Council, whose academic studies may, perhaps, have gone further than his own in many directions, on equal terms. That such a man would also be a reasonable man is most likely. Still, it must be insisted that a direct representative must be an essentially reasonable man. Knowing at first hand what are the grievances of general practice, he should be able to discriminate between those which arise from causes that cannot be dealt with by the General Medical Council and those the removal

of which is practicable; and he should not rest until he has in his mind a scheme whereby such removal might be effected. But he should recognise that most useful reforms come somewhat gradually, and when he finds himself in a position to take a large stride forward he should not look upon his predecessors as having been silly or timid because they did not lead the way. There are two things that go to make an acrobat—his own agility and his spring-board. The useful reformer appreciates the fact that those whom he succeeds are his spring-board. What though they appear stationary, without them he could throw no somersaults. The model direct representative will also know how to rate himself. He will remember that he is one of a group of five persons swamped in a body of 32, but raised to a position of dignity because he has an enormous constituency to represent. He is not a delegate, but he is not sent to the Council to air his own views. His individuality should have full play, but he must be energetic in behalf of the medical profession and not in behalf of his own importance—which importance, as far as the Council is concerned, arises from the trust which his professional brethren have reposed in him.

Where, it may be asked, can such a man be found? Hardly TRIERMAIN required more of his bride. But fortunately it is not necessary to find him. It is only necessary to find men possessing certain of the ideal qualities, with aspirations towards others, so that the group of five Direct Representatives should more or less make up the perfect representative between them. When this position is reached direct representation may be of prime value to the medical profession. All direct representatives should be adaptable men, not pusillanimous or timid, but ready to compare views with each other and to yield small points here and small details there, if only a common constructive policy can be hammered out between them. Having once sat upon the Council together it should be impossible for them to write to the medical or lay press, or to address meetings of their constituents, with the purpose of pointing out that SHORT is the friend and not CODLIN. Five direct representatives not in harmony with each other and having no common cause of action are not likely to make any deep or lasting impression upon the General Medical Council; and if, after being returned to the Council together, they, presumably with the same mandate, are seen belittling each other, their influence is at once much lessened. That individual direct representatives have rendered sterling service in different directions upon the General Medical Council THE LANCET has been quick to recognise; but their work has too often recently been rendered ineffective by their having no common programme and, apparently, no respect for each other. Five direct representatives working unselfishly towards a common end and steadily recording, perhaps, after a few judicious words from the mouth of the one or two of them best qualified to speak, a solid vote in favour of practicable reforms would, in our opinion, defy all arithmetic and count for at least 50 on a division. Then, and only then, the weighty numbers of their constituency would be felt, for the General Medical Council will never desire to thwart the clear wishes categorically expressed of the whole medical profession.

## The Prevention of Water-borne Diseases in the Army.

IN spite of our great advances in sanitation, and of the fact that the unseen bacillary enemy is as real and as disaster-bearing as the human foe, no effectual means have yet been taken to protect our troops from water-borne diseases. The difficulties of placing in the hands of mobile forces of men a means of expeditiously and effectively rendering a suspicious water free from the seeds of disease are, of course, great. The possibilities of the laboratory, or even of the home, can only be faintly realised, if realised at all, in a campaign. We still are uncertain as to the most practicable way by which infected water can be rendered rapidly and truly innocent. Not that we do not know how water can be sterilised and the potentialities of the disease-producing germs contained in it destroyed, for there are many ways of effecting this; but the question as to which of these is the most trustworthy amid the difficulties of transport and the mobilisation of troops under every conceivable condition of a thousand climatic variations as yet has not received a completely satisfactory answer. An answer, however, that must command attention has been furnished by a remarkable lecture which was delivered on Nov. 12th at the Royal United Service Institution and published in our issue of Nov. 16th (p. 1360). In this lecture Dr. H. E. LEIGH CANNEY urges the adoption of sterilisation by heating, employing petroleum as transportable fuel for the purpose, and he proposes the appointment of a "water section" of men, amounting in number to 2 per cent. of strength, and recruited for intelligence and trustworthiness, to supervise the process. To this section Dr. LEIGH CANNEY would confide the duties of providing their corps or unit with "approved" water and guarding it against all the water-borne avenues of typhoid fever. He assumes that sterilisation by heat is the most practicable and least liable to errors in method and that it requires less expert skill than a filtration or a chemical process. Concerning this opinion we have a few words to say; but while we think it right to be critical we should like to see Dr. LEIGH CANNEY's scheme tried. The results of practical experience would form the best criticism.

That sterilisation by heat is the most effectual way of rendering dangerous water harmless is of course accepted, assuming that there is no difficulty in regard to the transport of fuel, which in this case Dr. LEIGH CANNEY proposes should be petroleum. He says nothing about quality, whether it is to be a light or a heavy oil, or of a high or low flash point, which are factors of some importance where transport and storage are concerned. Apart from these considerations the raising of a large volume of water to a relatively high temperature is a laborious proceeding, and even when effected, the energy so imparted, though it has done its sterilising work, has to be dissipated and wasted because the water has to be cooled before it can be drunk. This, of course, is all a consequence of the great thermal capacity or specific heat of water. Some idea of the enormous energy required to raise the temperature of water to boiling-point

may be gathered from the fact that the quantity of heat which raises a pound of water from 0° to 100° C. would suffice to raise a pound of iron from 0° to 900° C. Heat is, it must be admitted, a feeble and extravagant sterilising agent considering the actual energy involved in raising water to the sterilising degree, and when its source is a factor of importance in transport we are tempted to look around for less exacting arrangements. Could not the same destructive effect on organisms be obtained without casting such an incubus on transport? Need fuel be sought at all for the purpose? Manual energy and horse-power might be directed to the production of an electric current which could be employed either for sterilisation by heat, or more conveniently still by ozone. The latter is giving excellent results, we believe, on a large scale and a hand or horse dynamo would add little to the impedimenta of a mobile force. Machinery for the translation of man- or horse-power into electric or caloric energy is simple enough and a negligible load compared with fuel, even in the liquid form. With regard to other methods, confidence in the portable filter has been somewhat rudely shaken; it is worse than useless under a rough-and-ready environment. Purification by forced sedimentation is an effectual method of removing organisms from water, but it also imposes conditions which are likely to fail at the right moment. The addition of chemicals such as permanganate of potash, chlorine, or bisulphate of soda in quantities harmless to the consumer seems simple, but we are without any experience of the practicability or convenience of the method for rapidly-moving armies.

The main thing in favour of Dr. LEIGH CANNEY'S proposals being given practical trial, in spite of certain manifest objections to their easy working, is that they are clear, definite, and comprehensive. They go to the root of the matter in that they regard all causes, real and alleged, of epidemic disease in fighting armies as second in importance to contaminated water. The view that the typhoid fever of camps is not necessarily due to an impure water-supply, and to that factor alone, is held by many military sanitarians, and in MUNSON'S recent work<sup>1</sup> on military hygiene an account is given of the epidemics of typhoid fever in the camps of the American army during the Spanish-American War which clearly supports the opinion that other factors are frequently at work. It has been noticed in our own army that young troops and those who have recently arrived at a foreign station suffer more severely than the older and more seasoned soldiers from typhoid fever, and it is not unlikely that circumstances which have as yet escaped knowledge may possess a determining influence over the spread of typhoid fever and other epidemic diseases of armies. It may be nearly as important a thing for the health of a camp to attend, for example, to the disinfection and safe removal of all excretions as to look to the water-supply; but this must not be used as any argument against the value of Dr. LEIGH CANNEY'S suggestions. He attacks boldly one unquestioned source of mortality in all armies in the field, and his plan of procedure ought not to be lowly rated because other sources of mortality, the virulencies of which

are not so clearly ascertainable, will still remain to be dealt with. In the teeth of the undoubted fact that heat is neither a convenient nor an economical sterilising agent, we should like to see practical trials made at once of Dr. LEIGH CANNEY'S "water section." If his scheme does not come out well under tests—if, for example, the amount of transport required and the time wasted in allowing the water to cool combine to make it useless for rapid marches—it will be time to look for some other method of purification. The Waterhouse-Forbes steriliser, in which also heat is the agent employed, is a very ingenious apparatus. It is being used, after considerable trial, in the United States army, and has been found the simplest and most portable method of supplying abundantly sterile and cooled water to troops.

### The Reformed Inebriate and His Future.

THE Home Secretary invited representative members of organisations formed for the rescue and reformation of the intemperate to a conference at the Home Office on Nov. 20th with a view to devise some scheme for the assistance of inebriates released on licence from reformatories. The circular issued by the Home Office stated that about 400 persons have been committed to certified inebriate reformatories under the Inebriates Act of 1898, and deplored the fact that many of these, after showing improvement, moral, mental, and physical, following upon their detention, must inevitably relapse as the result of the sudden transition from strict discipline to full liberty amidst prejudicial surroundings. The remedy suggested for this, on the recommendation of the Departmental Committee of 1898, is the help and encouragement that might be afforded by something in the nature of a half-way house between the reformatory and the outside world, some workers' home or agency where the reformed inebriate could obtain work or assistance in procuring it, where he could gradually draw any savings that he had accumulated, and where he could take refuge and again place himself under moral control in periods of temptation. The Home Secretary invited the conference and coöperation of philanthropic bodies with a view to the institution of these half-way houses, because he considers it obvious "that the managers of the reformatories cannot be expected to make this provision for their licensed inmates," of whom he went on to say that they "are drawn from all parts of the country and it is generally expedient that on release they should return to their former homes or the neighbourhood with which they are acquainted."

That it is eminently desirable that the inebriate once rescued should be maintained in safety none will deny, nor will any hesitate to affirm that it is in the old surroundings and among the old associates that witnessed his original downfall that his chief danger will lie, although it is only in the place where he is known that he is likely to have a good opportunity offered to him of redeeming his past. The inebriate who, before his final incarceration in a reformatory, has gradually sunk to a social sphere below that in which he was originally entitled to move may in some instances be

<sup>1</sup> Theory and Practice of Military Hygiene, by Edward L. Munson, M.D., Captain Medical Department, United States Army. London: Baillière, Tindall, and Cox. 1901.

able to return to respectable friends who will welcome him back, take care of him as he should be taken care of, and afford him the help which he needs to enable him to begin life afresh. On the other hand, he may have no such friends, or his relatives and former acquaintances may have suffered so long and acutely by his misdeeds that they may be unwilling to receive him, or if they receive him may regard him with mistrust and apprehension and render his position unbearable by reminding him of his past. If the inmate of an inebriate reformatory released on licence finds that his relations are distrustful of him or are unwilling to receive him he will then be in the position of those who have no respectable relations, and who, if they go to familiar haunts at all, will go to those very haunts in which their final downfall took place and in which it was, perhaps, made easy and condoned. Those with whom they will associate in these circumstances may not be absolutely vicious; they may not themselves be noticeably intemperate or depraved; but they are extremely likely to belong to a class in which goodwill towards a former companion who has returned after a prolonged absence almost invariably manifests itself in pressing offers of alcoholic refreshment, and in which humour is apt to take the form of temptation offered to a person known to be prone to inebriety to become intoxicated. When the inmate of an inebriate reformatory finds himself released from its discipline and plunged into such surroundings as these, without any hand being stretched out to guide him and without any place or person near by to whom he may turn for help should he be conscious of his need for it, there can be but little hope of his reformed condition being maintained. The question, therefore, of the means by which the relapse to inebriety may be averted is a very important one if any good work of a permanent description is to be accomplished by inebriate reformatories. It is also a very difficult one, the difficulty consisting, not only in finding the best way of effecting the desired end, but also in finding the persons who will carry out the methods recommended.

With both these questions Sir KENELM DIGBY, on behalf of the Home Secretary, dwelt at considerable length in his introductory statement, and he pointed out that so far as the detention of the inebriate is concerned the provisions of the Inebriates Act of 1898 had been successfully carried out. He went on to say that the working of the Act, which was yet only in its experimental stage, had been facilitated by the Government as well as by local authorities, but that with the view of completing the scheme it was necessary that philanthropic agencies and individuals should come forward and supplement the efforts already made by finding work and funds and friendly supervision for those released on licence. Dr. FORMAN of the London County Council, Mr. HADEN CORSER, the metropolitan magistrate, Mrs. BRAMWELL BOOTH of the Salvation Army, Miss FORSYTH, and many other experienced workers, spoke in favour of this further development of the work, and we understand that the Home Office authorities had good reason to be satisfied with the success of the meeting. Many practical suggestions were made and we are informed that Dr. R. W. BRANTHWAITE, the medical inspector of inebriate reformatories at the Home Office, will be ready to lend a helping hand in all cases where benevolent institutions or indi-

viduals are prepared to offer accommodation or employment under the circumstances to which we have referred. We are anxious to point out that mere lodging accommodation, however kindly and however attractive, is by no means all that is required. To our mind the essential feature of this after-care management of the inebriate consists in providing definite work under firm and considerate supervision, with such opportunities for physical and mental recreation as are best calculated to confirm and strengthen the wholesomeness of the moral tone of the individual in his efforts to return to his proper social position in the community. For this purpose we think that the proffered help of such well-established and powerful agencies as the Salvation Army and the Church Army should be freely taken advantage of as being most likely to secure the objects in view. Medical men throughout the country are so conscious of the need for help at this critical juncture in the life of an inebriate that they may be relied upon for advice and assistance at all times.

### The Situation at the Macclesfield Infirmary.

As we have already reported, the members of the honorary medical staff of the Macclesfield Infirmary have handed to the governors of that institution a unanimous resignation of their posts owing to the action of the governors in selecting, contrary to the advice of the staff, a female to fill one of the resident posts. The story is briefly as follows. At the end of October the medical staff received a communication from the secretary of the hospital inclosing the testimonials of three candidates for the then vacant post of junior house surgeon. Two of the candidates were females, and the medical staff, after carefully considering the applications, unanimously recommended the third, a man, as the only suitable person to fill the post. Notwithstanding this strong expression of opinion from the medical staff the house committee of the infirmary decided to send for all the candidates, but only the two ladies were able to appear before the governors, the gentleman who had received the support of the medical staff having been appointed during a rather lengthy interval to another post. The medical staff then proposed that no appointment should be made immediately and that the post should again be advertised as vacant, but the governors decided to elect one of the two female candidates, whereupon the medical staff resigned their posts, holding that this action of the governors was tantamount to a vote of want of confidence in them. The governors of the infirmary decided a week later to invite the medical staff to a conference at which the whole question might be discussed, but the conference, which was held on Tuesday last, resulted in no settlement, each side maintaining its position. And that is how the matter now, unfortunately, stands.

Two perfectly separate questions are here involved: the question of the advisability of appointing women to certain medical posts, and the question of the amount of confidence that should be reposed by the lay governors of a hospital in their honorary medical staff. In saying a few words in support of the attitude of the medical staff towards the first and less important of these two questions, we wish to

premise that we are not making light of the excellent work that has been done by medical women in all sorts of spheres. Times, and ourselves with them, have changed, and we agree with one of the governors of the Macclesfield Infirmary when he said at the conference between the governors and the medical staff that "the lady doctor has come to stay," and we absolutely repudiate the unworthy suggestion that the opposition to the appointment of women to certain resident posts in hospitals springs from the jealousy of their male *confrères*. The objection that the medical staff of the Macclesfield Infirmary have to the delegation of their patients to the care of a woman is one that is felt, and felt strongly, by medical men all over the kingdom, and it is one that we share. A hospital or an infirmary where emergency cases of all sorts occurring in either sex are admitted is not a place where a woman can replace a man, however much she can help him. Certain classes of patients—for example, men suffering from acute phimosis or from retention of urine as a concomitant of gonorrhœa—ought not to have their physical misery added to by being restricted to the ministrations of a woman. That nurses can and do most efficiently and discreetly help such patients we all know, but they do it upon the instruction of a medical man, and the situation is entirely different from that created if the patient has to tell his story to a female ear. Female patients, suffering in comparable ways, have the support of their sex in the nurses, though their medical advisers be men; it is manifestly wrong that the male patients should be placed at the cruel disadvantage of being compelled to confide in a woman. Granted that a female house surgeon, apart from those special directions where the value of her work is obvious, can discharge most of the duties that devolve upon the resident staff of a general hospital, we yet hold strongly that she cannot replace a man to whom it is natural to deal with all situations that may arise. If the governors of the Macclesfield Infirmary, having decided to ignore the inconveniences of putting a young man and a young woman to live together—inconveniences which are none the less real because for manifest reasons they are not much mentioned—had limited the work of the female junior house surgeon in such a way that a class of male sufferers could never be cut off from communication with the male medical officer, they would have had a better case as far as the appointment of a female junior house surgeon is concerned. As it is the view of the staff must commend itself to all who understand the working of a hospital.

But what about the position that has been created through the flouting by the governors of the advice tendered to them on request by the medical staff? This is a more serious matter. There is nothing so bad for the welfare of a hospital as the existence of a quarrel between those responsible for the medical care of the patients and those responsible for the lay management of the institution. Such civil wars upset the public confidence, re-act upon the patients, and bring bitterness into work the essential reasons of which are love and charity. We earnestly trust that the lay governors and the medical staff of the infirmary will come to an immediate settlement of their differences. The settlement might be made upon temporary terms, the ultimate arrangement to be arrived at by a

specified time: but settlement of some sort there must be immediately or the work and reputation of the infirmary will suffer. We would suggest, much on the lines of a proposal already submitted by the medical staff, that for a short period the elected junior house surgeon should discharge the duties of the post with limitations, males suffering from venereal diseases and other similar patients being seen by her male superior officer—who will doubtless come to the assistance of the hospital with additional service. The honorary medical staff have offered to continue to attend the patients for a month. During that time the whole matter should be temperately threshed out, and to any arbitration committee that may be appointed we would tender one word of advice. They should make it a by-law of the hospital that the medical staff must be adequately represented on the house committee or committee of general management. At least two of the medical staff ought to sit regularly in counsel with the lay authorities. In this way the lay governors would get into proper touch with medical feeling and the medical staff would learn to appreciate the energies of their lay colleagues; medical opinions would no longer savour of dictation to lay ears, and lay misapprehensions would not exist under a better understanding of the medical standpoint. When this feeling of mutual confidence has been created no such troubles will again occur.

## Annotations.

"No quid nimis."

### THE REPORT OF THE DEPARTMENTAL COMMITTEE ON FOOD PRESERVATIVES.

THE long-awaited report of the Departmental Committee appointed to inquire into the use of preservatives and colouring matters in food has at length been published and a copy of it has reached our hands this week. It is only a few weeks since that we took occasion to complain that this report had not been published, although the committee had been appointed so far back as in July, 1899. The delay, however, appears to be justified by the thoroughness and comprehensiveness of the report now issued, and we regret that owing to the great pressure upon our space this week we cannot enter into it at that length which its importance demands. The report, together with the minutes of evidence, appendices, and index, occupies over 500 pages and we doubt whether the subject has ever been dealt with so exhaustively in this or any other country. We congratulate the committee upon the able manner in which they have weighed the evidence, and on the way in which they have crystallised out their conclusions based upon the enormous number of diversified opinions and facts with which they have been faced. We hope next week to deal more comprehensively with the report than it is possible to do in our present issue. Suffice it to say that the recommendations drawn up are very closely in line with the views which for many years we have expressed in our columns. More particularly we may note with much gratification that the terms of the recommendations coincide very closely with the principles laid down by THE LANCET Special Sanitary Commission on the Use of Antiseptics in Food, the report of which appeared in THE LANCET of Jan. 2nd, 1897, p. 56. The broad conclusions of that commission were that the practice of preserving food

with chemical substances should be subjected to control in regard to the amount and kind of preservative used, and that if any legislation were to be adopted it should be insisted that the seller must declare by label or in some other way the fact of a food containing such preservative. In a word, we urged that legislation should be directed against the abuse rather than against the use of preservatives. The recommendations which the Preservatives Committee have now drawn up after hearing the evidence of 78 witnesses, and after appointing a sub-committee to visit other countries, the inquiry having extended over two years, are practically identical with THE LANCET's representations. Thus, the use of formaldehyde is to be forbidden entirely while salicylic acid is not to be used in a greater proportion than one grain per pint in liquid food and one grain per pound in solid food. The use of any preservative or colouring matter whatever in milk offered for sale is to be constituted an offence under the Sale of Food and Drugs Acts. It is to be lawful to use certain boron compounds in cream, but the amount is not to exceed 0.25 per cent. expressed as boric acid. (We see no gain in insisting, as is recommended in this clause, that the amount should be stated on the label.) The only preservative permitted to be used in butter is also boric acid or borax and the proportions are not to exceed 0.5 per cent. expressed as boric acid. No chemical preservatives whatever are permitted to be used in any dietetic preparation intended for the use of invalids or infants, while the use of copper salts in the so-called greening of preserved foods is prohibited, though to this recommendation one member of the committee demurs. Lastly, to provide against the introduction of new and possibly objectionable preservatives it is recommended that a separate court of reference should be established or a new obligation should be imposed upon the Local Government Board to exercise supervision over the use of preservatives and colouring matters in food, and to prepare schedules of such as may be considered inimical to the public health. As we have said, we hope to return to the subject more fully next week, although in the meantime we are glad to state that with the general trend of recommendations of the report we are in entire agreement, as will be gathered from the views expressed in our columns both before the committee were appointed and during the time of their deliberations.

#### THE CLOSED WINDOW.

THE absolute importance of a sufficient supply of pure air to all persons under all conditions is a subject upon which we never lose an opportunity of laying stress. We are glad, therefore, to add our support to the emphatic testimony of a correspondent who addressed the *Westminster Gazette* recently in a letter with the above heading. The gist of this gentleman's remarks was that he always slept with his bedroom window wide open, that in the daytime he was equally careful to be liberally supplied with fresh air, and that he used cold water freely. Now, there is not the slightest doubt that this doctrine, though perhaps carried to an extreme, is sound in foundation. "Colds," whatever their exact etiology, are commonly caught from sudden or prolonged exposure to temperature considerably lower than that usual at the time. Such exposure presumably lowers the resistance of the individual, and it does so mainly because his resistance is not habitually educated in the manner described by the writer whom we have quoted. A hardihood of the vaso-motor system, if not of the body generally, is certainly obtained by a healthy person who habitually exposes himself freely to fresh air and the daily test of a cold bath. We have pointed out recently the atmospheric iniquity of most public buildings, but in private life there is no excuse,

except among the poorest, for deficient quantities of fresh air. Unless there are special reasons for the contrary every person should sleep with his bedroom window open, and copious supplies of air, if not of sunlight, too, should be constant visitors in his sitting-room, even though this looks upon a London street. Fresh air and sunlight are the great natural germicides. Medical men must constantly teach the public that if only these two are constantly sought they provide a prevention that will do away with the need for the cure now unhappily so often sought in vain in an open-air treatment. The open-air treatment is wanted in everyday life. It can be so largely introduced as to save thousands from the necessity of giving up their lives to curing the tuberculosis which they would never have contracted had they indulged earlier in free air. In an article on the "Degenerative Results of Deficient Ventilation" in the *Journal of Bacteriology and Climatology* the writer pleads for legislation to limit the minimum ventilation allowable in every assembling-place or habitation for human beings and for dairy cows and horses. The vast influence for evil—particularly in the matter of tuberculosis, anæmia, and colds, the forerunners of lung disease—that is exercised by deficient ventilation, places the matter on a level of importance sufficient to demand legislative interference. Legislation, though, is a slow remedy. Public opinion can in the meantime effect a vast improvement. There are always hundreds of eager enthusiasts waiting for a cue. They will seldom get one more worthy, never one less harmful, than the formation of an "open-window league." Such a body, formed for the propagation of sound principles of ventilation and hygienic atmospheric conditions, may confidently count upon the support of the medical profession. There are, however, we must admit, two great difficulties in the way of the always-open window in London at any rate. The first is the noise, and the second the amount of dirt and soot in the air, which make everything in a room filthy unless the incoming air is filtered in some way.

#### "LES AVARIÉS."

WE recently alluded to certain medical plays which have appeared in France, and made mention of *Les Avariés*, the production of which has, we understand, been interdicted. M. Eugène Brieux describes *Les Avariés* as a play having for its subject a study of syphilis in its relation to marriage; the piece, he says, contains nothing of a nature to cause scandal and contains no obscene word. The play is divided into three parts. The first scene takes place in the consulting-room of a medical specialist who is called upon to advise a patient, "l'Avarié." M. l'Avarié, if for convenience he may be so called, is a young man who was about to make a successful marriage, a marriage indispensable from a worldly point of view, and otherwise desirable because he loves his fiancée. The preliminaries have been settled and the marriage contract is signed. Then M. l'Avarié, although rather a good young man (*pas coureur ni débauché*), has the misfortune to contract syphilis in the usual manner, whereupon he consults the physician and learns that for him to marry in his present condition will be a crime, the various ills which might affect his wife and children being duly pointed out to him. The physician comforts him by saying that in the course of three or four years a real cure can with care be effected. M. l'Avarié promises that he will not marry. At the beginning of the second Act it is discovered that M. l'Avarié has married the lady and they have a baby, aged some months. M. l'Avarié, to his credit it must be observed, had postponed the marriage for a time and has undergone some quack treatment which is credited with having caused the disappearance of the prominent symptoms of his malady. All goes well and the marriage is a success. M. l'Avarié's mother is extremely fond of her grandchild

and sees him as often as possible, for the child is out at nurse. Unexpectedly she returns with the nurse and the child, for the country doctor has ordered that wet nursing should be given up and that the child should be fed with a bottle. Then the grandmother, wishing to get at the root of the matter, consults a specialist who, as every experienced playgoer must expect, turns out to be our friend of the first Act. The doctor asks to see the father of the child and recognises his old patient. Madame l'Avarié has escaped infection but the child has not. The wet-nurse ought no longer to run the risk of danger. So says the physician. But the grandmother wishes the nurse to stay, otherwise the child might die. What matter if the nurse runs a risk? If she were infected they could pay her. However, the nurse chooses to go and demands her money, whereupon M. l'Avarié refuses to pay. Then the nurse, touched in her pocket, turns on him and tells him that she knew the nature of the illness and Madame l'Avarié overhears the end of the conversation. In the third Act a new character appears, the father of Madame l'Avarié, a "député." He is received at the hospital by the physician who presumes that he has come to get some information for use in the cause of hygiene. He has in reality come to obtain a certificate from the physician to enable him to sue for a divorce for his daughter who has returned to him. The physician declines. He also advises that the nature of the child's illness should be kept secret. A cure is possible. A public scandal can never be obliterated. He advises pardon, hope, and patience—patience for the present and hope for the future. So the play ends. That the scabrous theme of hereditary syphilis, which has already been used as a *motif* by Ibsen, is here treated by M. Brieux discreetly may be true, but the production of such work at a theatre cannot be recommended. The lessons in practical life and morals may all be sound and forcibly inculcated, but most people expect recreation and the creation of pleasant emotions at the theatre; they do not want instruction in the pathological sequelæ of venereal disease. We trust that the play will not get a public hearing.

#### THE PHYSIOLOGY OF THE ADRENALS.

Dr. Hans Strehl and Dr. Otto Weiss contribute an article to a recent number of Pflüger's *Archiv* which contains the results of their researches on the physiology of the suprarenal capsules on which they have been engaged for the last three years in the Physiological Institute of the University of Königsberg. They first occupied themselves with the question of the importance to life of these organs. Upon this point there has been much difference of opinion. Brown-Séquard in particular, who removed them entirely from the body, thought their presence was indispensable to life, since death was the invariable consequence of their removal. Subsequent experimenters, like Tizzoni and Nothnagel, opposed this statement, but in their method of operation the organ was not removed but only broken down *in situ*. Neither by Brown-Séquard nor by the above-named observers was any dissection made to determine the presence or absence of accessory adrenals. Dr. Strehl and Dr. Weiss find that such structures, the presence of which, of course, invalidated the results of both sets of observers, are to be found occasionally in rabbits; in two cases they were situated behind the vena cava and in another in the substance of the cortex of the kidney, whilst two of the size of a bean were discovered in a cat which had survived without apparent injury the removal of both adrenals. Their operations to determine the results of total extirpation were performed on dogs, cats, rabbits, guinea-pigs, rats, mice, a hedgehog, and a weasel, and upon frogs; for those made on rabbits, mice, and rats albinos were

selected. The removal was usually effected by laparotomy in the linea alba, though occasionally through the back of the animal, the right adrenal being first removed on account of the greater technical difficulties attending the operation. Asepsis was carefully effected in every instance. Experiments were performed upon a number of other animals from which only one suprarenal capsule was removed. They were uniformly fatal in the case of guinea-pigs, but the other animals appeared to suffer little inconvenience except that two dogs and a cat became thinner. In the animals which died after removal of both adrenals the symptoms observed were great muscular weakness and apathy; the gait was vacillating, the legs straggled, and the head was depressed. The temperature slowly fell. The blood-pressure was found to be diminished to the extent of four or five millimetres of mercury after the removal of one adrenal, but when the second one was extirpated the blood-pressure at once fell 20 or 30 millimetres and continued to fall more slowly till death ensued. Transplantation of the adrenals even into parts that were highly vascular, like the substance of the liver or kidneys, was never successful. Dr. Strehl and Dr. Weiss point out the difficulty of determining with certainty the cause of death, some attributing it to loss of nerve-power, others to the adrenals secreting or producing a substance which, entering the blood, keeps up the blood-pressure, and others to the adrenals destroying some substance proceeding from the muscles or other tissues and accumulating in the blood after their removal which would otherwise exercise a deleterious influence on the blood-pressure. The experiments in favour of the last-named view are that animals die much sooner after ablation of the adrenals if their muscles have been previously tetanised; whilst the injection into frogs of the plasma of blood of warm-blooded animals from which the adrenals have been removed proves fatal, acting like curare in paralysing the end-organs of the motor-nerves generally. On the other hand, the researches of Oliver and Schäfer and other observers seem to show that some substance is formed by the adrenals the action of which is to maintain the blood-pressure.

#### BELATED HONOURS TO MEDICAL WORTHIES

AN Italian contributor writes from Florence, Nov. 22nd: "The Medical Congress which recently sat at Pisa wound up its proceedings by an impressive, if very tardy, acknowledgment of the obligations conferred on that seat of learning by the great anatomists and nature-students Andrea Vesalio and Andrea Cesalpino. The former, though not an Italian by birth, made Italy the scene of his most effective work, leaving on anatomy in all its departments the marks of true genius in research and of an expository power at once luminous, artistic, and fascinating. To commemorate these services a tablet inserted in the façade of the old Church of Our Lady of Snow (Santa Maria delle Nevi) opposite the University bears the following inscription:—

In questo edificio  
fu l'anfiteatro anatomico  
dello Studio Pisano  
dove per primo insegnò  
Andrea Vesalio  
negli anni 1543-1545

Ottobre, 1901.

(In this edifice was the anatomical amphitheatre of the Pisan University, where for the first time Andreas Vesalius gave instructions in the years 1543-1545. October, 1901.) At the unveiling the Senatus Academicus, the students, and all the members of the Congress were present and the spokesman was Dr. Guglielmo Romiti who worthily holds the chair from which Vesalius taught. Professor Romiti gave a brilliant sketch of his illustrious predecessor's career, dwelling emphatically on the spirit of independence with which he investigated nature, even though it brought him

into collision with his own teachers and with the traditional science of the period. This ceremony concluded, the Congress shortly thereafter repaired to the hospital to assist at a similar function, the unveiling of a memorial tablet to Andrea Cesalpino, another light of the Pisan School, one of the most profound and most accomplished physicians of his time as well as an able and intrepid physiologist, who 'just missed anticipating Harvey in his epoch-making discovery of the circulation of the blood.' The inscription runs as follows:—

In questo luogo ove per lungo tempo di secoli furono le stanze anatomiche del Pisano Nosocomio è fama Andrea Cesalpino ricercasse nei cadaveri sedi e cause di morti e dopo di lui una pleiade di osservatori fra i quali Alfonso Borelli e Marcello Malpighi—qui al principio del secolo XIX s' incontrarono Giorgio Cuvier e Paolo Mascagni—E l'Accademia che dal gran Cesalpino prende nome a perpetuare memorie così gloriose pose questa lapide.

(In this place, where for a long time throughout the centuries were the anatomical rooms of the Pisan Hospital, Andrea Cesalpino is reputed to have sought in the human subject the seat and the causes of death, and after him a pleiad of nature-students, among them Alfonso Borelli and Marcello Malpighi; where also at the beginning of the nineteenth century George Cuvier and Paul Mascagni met; the Academy, which takes its name from the great Cesalpino, in order to perpetuate such glorious memories, has placed this stone.) The oration at the unveiling was delivered by Dr. Carlo Fedeli, professor extraordinary of medical pathology, well known in the balneological world as consultant to the thermal establishment organised by Government at Montecatini. Once more the spokesman proved worthy of the occasion, fitted as it was (for the younger portion of the audience particularly) 'not only to commemorate, but to inspire.'"

#### THE CARE OF THE INSANE.

EARLY in last September, at Hadsor, near Droitwich, a lady named MacDonnell, who had been recently confined in the Warneford Asylum—near Oxford, but had been released on trial a few days before, murdered her sister with whom she was staying and her sister's child, and committed suicide herself. At the inquest upon the bodies the coroner, in summing up to the jury, criticised unfavourably the manner in which the unfortunate lady had been allowed to leave the asylum, imputing a want of proper precaution to the authorities of the institution, who were not represented at the inquest, either as witnesses or otherwise. A report was sent in due course to the Commissioners in Lunacy by the committee of the asylum, and the Commissioners' reply to that report, we are glad to say, completely exonerates the Warneford Asylum from all blame. We have perused both documents and we fail to see how Dr. James Neil, the medical superintendent of the asylum, could have done otherwise than he did in releasing Miss MacDonnell and permitting her to return to her relative, who was anxious to receive her, while we do not see that there was any precaution that should have been recommended to the murdered sister or that there was any ground for any such recommendation, taking into consideration that all the circumstances of Miss MacDonnell's illness and detention were already known to her. Miss MacDonnell had been detained for more than nine months, and during that period had improved in health, slowly at first but more rapidly later, until she was able to enjoy the social amusements provided for the recovered inmates, and until finally she showed no mental symptoms at all except a slight occasional depression. All delusions had disappeared and she had expressed apparently sincere penitence for one or two determined attempts at suicide which she had made before her detention. An impulse to injure her sister in the early stages of her derangement had been

noted, but during her residence in the asylum she had evinced no signs of this or of any homicidal tendency. In fact, in her conversation with regard to her sister and her little nephew she had always expressed warm affection for them and a desire to return to them, while her sister, as has been said, was anxious to have her with her. A brother who gave evidence at the inquest, in writing to Dr. Neil after the occurrence, expressed the opinion quoted in the report referred to, "I cannot conceive that anyone could have foreseen the existence of the homicidal mania"; and this gentleman, after waiting until Dr. Neil should fully sanction the provisional release of his sister, gave the necessary approval in writing of the course taken. In these circumstances we not only fail to see any cause for blaming the authorities of Warneford Asylum, but we are also unable to discover any means by which the patient could have been legally detained for a longer period or anything that pointed to the necessity, involving additional expense to the relatives, of keeping her after release under continued supervision by trained attendants, the only precaution which could have proved effective. In any case it appears to us to be a matter of regret that the coroner should not have confined himself to the subject of the inquiry before him, or if he thought the conduct of the asylum authorities germane to it that he should not have obtained their evidence before he indulged in censure. It is the duty of those who occupy judicial positions to keep as closely as possible to the issues and parties before them, and to hear both sides before giving vent to strong remarks which may do considerable injury to those who are made the subject of them, while those who utter them, owing to the privilege of their position, are free from all responsibility.

#### THE FACIAL OR SUPRA-ORBITAL REFLEX.

As the knowledge of the nervous system increases so more importance becomes attached to the presence or absence of any given reflex. At one time little diagnostic value was attached to the character of the knee-jerk; at a later date little attention was paid to the character of the plantar reflex; both these have now been shown to be of the greatest value in the diagnosis of affections of the nervous system. The presence of the facial reflex, sometimes known as the supra-orbital reflex, has of late attracted considerable attention. This reflex is produced by striking some part of the forehead and is followed by contraction of the orbicularis with more or less movement of the eyelids. In order to exclude the visual reflex the eye is kept gently closed. It is generally found that on tapping the frontal region a contraction of the orbicularis takes place on both sides. The path for this reflex passes centripetally through the fibres of the supra-orbital nerve to the sensory nucleus of the fifth nerve and thence to the nucleus of the upper branches of the seventh nerve on both sides. McCarthy, in the *Neurologisches Centralblatt*, says that he found this reflex present in 100 normal persons investigated. When exaggerated the reflex is obtainable by percussion on any portion of the supra-orbital nerve, but when diminished it can only be obtained by striking the nerve at its exit from the supra-orbital notch. This reflex was found to be absent on the left side in one case of cerebral syphilis in which the fifth nerve was affected whilst the seventh nerve was unaffected. In cases of facial paralysis the reflex was constantly absent, and in 25 cases of tabes it was diminished in 23 and absent in two. In a case of section of the supra-orbital nerve the reflex was absent. Some doubt has been expressed as to whether this is a true reflex, and Carl Hudsvernig, who investigated 1000 cases and found it present in all, expresses, in an article in the *Neurologisches Centralblatt*, the belief that it is an overflow of the muscular irritability to mechanical irritation into neighbouring muscles innervated by the

same nerve, and in support of such a view he quotes the case of a woman who had the right Gasserian ganglion removed for intractable neuralgia, and this contraction of the orbicularis was easily obtained on both sides. The fact that this muscular contraction is absent in facial paralysis is equally well explained by the view that it is an overflow from mechanical irritation of the muscle as by the view that the path for the reflex is interrupted on the centrifugal side. Bechterew also expresses the opinion that it is not a direct reflex from the branches of the supra-orbital nerve but an ordinary periosteal reflex. Little mention is made of the cases in which the reflex is increased; for instance, in tetany the facial irritability is generally ascribed to irritation of the facial nerve, but it would be equally reasonable to regard it as an increased reflex and would then accord with the increase of the other reflexes of the body which are present in tetany. Again, in cerebral diplegia the facial reflex is always marked in those cases in which the upper limbs and face are affected. Further observation is required not only to decide whether this is a true reflex or not, but also to show what significance may be drawn from its presence or absence.

#### THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Cape of Good Hope received at the Colonial Office on Nov. 20th states that for the week ending Nov. 16th the only cases of plague which occurred were those of 2 natives at Port Elizabeth. The only deaths reported also occurred at Port Elizabeth, and were those of 2 natives. The area of infection remains unchanged. In persons under naval and military control 1 case occurred—namely, that of a native at the remount camp, Port Elizabeth. As regards Egypt, for the week ending Nov. 10th 2 cases and 1 death from plague have occurred throughout all Egypt. From Alexandria 1 case, that of a native, was reported, and from Ziftah 1 case and 1 death, also a native. Only 1 case of plague remains at present under treatment in Egypt—namely, the one admitted on Nov. 5th at Alexandria. As regards the Mauritius, a telegram from the Governor, received at the Colonial Office on Nov. 22nd, states that for the week ending Nov. 21st there were 67 cases of plague and 39 deaths.

#### THE DISINFECTION OF WATER-RECEPTACLES ON BOARD SHIP.

IN the *Archives de Médecine Navale* for October Dr. Lasserre of the French Navy advocates the cleansing and disinfection of water-receptacles on board ship by means of the flame of burning alcohol. Potassium permanganate is often used for the purpose, but in his opinion it is powerless against the germs of water-borne diseases, such as typhoid fever, dysentery, and cholera, and should more powerful chemical agents be employed they will probably prove injurious to the consumer. Dr. Lasserre's method of procedure is as follows. Having made a pad of compressed cotton-wool of about the size of an orange, he attaches it to some convenient metal rod to serve as a handle, and then steeps it in a vessel containing alcohol, thus converting it into a torch. Descending into the receptacle through the manhole he next applies the flame all over the inner surface, taking especial care that no angle or recess shall escape the action of the caloric. An assistant outside renews the alcohol as often as may be necessary, the amount required for a receptacle capable of containing two tons of water being about half a litre. The objections to the process, according to Dr. Lasserre, are threefold: risk of causing a fire, inconvenience from the high temperature, and danger of asphyxia by carbonic acid gas. A little prudence should, he thinks, suffice to neutralise the first of these objections, while the second and third can be obviated if the person

operating is careful to keep his head near, or even entirely external to, the manhole. It is also a good plan to place a lighted taper on the floor of the receptacle, for the flame will serve as an index to the quantity of carbon dioxide that may be present. Should the taper go out the operator would do well to follow its example as quickly as he can. Dr. Lasserre adds that he himself has manipulated his *flambage* process on several occasions without experiencing anything more disagreeable than violent perspiration. As the vessel from which his communication is dated is on the Cochinchina station this behaviour on the part of his sudoriparous system is intelligible. It is also conceivable that, from the consumer's point of view, a fourth objection to the process might possibly be advanced, but happily sailors are seldom captious in such matters. Among the advantages attaching to *flambage* Dr. Lasserre observes, in conclusion, that disinfectants are occasionally unavailable, whereas "it is always easy to procure alcohol!"

#### SCIENCE FOR THE MULTITUDE.

IN a recently-delivered popular lecture Dr. John Aikman of Guernsey has supplied an example of dexterity in putting the leading ideas of technical questions into a form adapted to the comprehension of the average individual. Taking "Some Aspects of Life" as the title of his address Dr. Aikman discoursed in simple language and with homely illustrations on cytology, the morphological elements of the blood, the phenomena of oxygen absorption and oxidation of the tissues, phagocytosis, diapedesis, inflammation, necrosis, chemotaxis, pathogenic organisms, microbial toxins, epithelial transplantation and proliferation, nerve force, and the theory of vibration, mechanical and molecular. These various subjects, which were of necessity presented in a highly diluted form, were interspersed with much poetical quotation, showing both literary ability on the part of the speaker and a fine faculty of "adaptation to environment."

#### CASES OF BORIC-ACID POISONING.

DR. J. F. RINEHART records in the *Therapeutic Gazette* for October two cases of poisoning by boric acid and refers to the scarcity of literature on the subject. An insidious and probably unnoticed form of such poisoning may take place through the consumption of foods "preserved" with boric acid. As was recorded in our columns last week, a shrimp-dealer at Morecambe was fined £20 and £5 costs at Lancaster for selling three pints of Dutch shrimps "containing 95 grains (per pound) of borax used as a preservative." The cases recorded by Dr. Rinehart had characteristic symptoms following the administration of boric acid as a drug. The first case was that of a man, aged 38 years, who was suffering from a posterior urethritis. He was treated with five-grain doses of boric acid every four hours to be taken by the mouth. Local treatment was employed with a weak solution of nitrate of silver. After two or three days he complained of extreme weakness and a vesicular eruption appeared on the back of his hands and between the fingers. The pulse was very weak but not accelerated. These symptoms passed away upon stopping the administration of the boric acid but returned when the use of the drug was resumed. Dr. Rinehart believes that had the use of the boric acid been persisted in the patient would have died. The second case was that of a man, aged 50 years, who had a suprapubic lithotomy performed on him. The bladder was washed out daily after the operation with a saturated solution of boric acid and five grains of the drug were given by the mouth every four hours. On the tenth day a rash of an erythematous nature appeared around the wound and in the lower part of the abdomen. Scales and crusts formed on the skin of the affected areas and the underlying cutis was thickened and

infiltrated as in eczema. The use of the boric acid was discontinued, and the eruption slowly disappeared, but on resuming the drug the rash re-appeared two days later. In this case the symptoms of depression and cardiac weakness were very marked, almost tending to collapse. There was slight albuminuria and at the height of the eruption the bodily temperature rose one or two degrees. Dr. Rinchart refers to two fatal cases quoted by Dr. H. C. Wood in his text-book of Therapeutics, in which the symptoms of poisoning by boric acid were nausea, vomiting and hicough, an erythematous rash, fall of temperature, and a state of collapse ending in death, the mind remaining clear almost to the end. He concludes that the use of boric acid as a preservative of food should be prohibited by law, as the poisonous effects of any quantity sufficient to preserve food would appear to be proven.

#### CHEMISTRY OF NERVE-TISSUE.

A RECENT number of the *Comptes Rendus* (No. 6, Tome 11, 1901) contains an article by M. N. Alberto Barbieri on an analysis which he has made of the fresh brain of the ox. The brain, freed from blood is triturated with three times its weight of distilled water and pressed through a cloth. A very fine and homogeneous emulsion is thus obtained, which is heated in a sand bath at 45° C. for half an hour or 40 minutes. When cool it is treated with ether in a vessel of moderate size, which has a stopcock at its lower part, and is allowed to remain at rest for 24 hours. It then exhibits two layers—an upper layer of grey colour and an inferior white layer. The inferior layer is drawn off, whilst the upper layer is exhausted with ether in the same vessel until the ether remains colourless. Three groups of substances are thus obtained—namely, those which are soluble in ether, those which are soluble in ether and water, and those insoluble in these neutral fluids. The first group he clears off by evaporation and slightly saponifies the residue with a solution of potash in alcohol. The soap is again treated with ether, which leaves undissolved a brownish substance very rich in sulphur and phosphorus, probably consisting of nucleins. The portion dissolved in the ether is filtered and the soap is dissolved in distilled water. By filtration cholesterolin, which melts at 145° C., is separated. The alcoholic liquor is now rendered feebly acid by hydrochloric acid and some common salt is added which precipitates the fatty acids. From the molten lye rendered alkaline by lime an aromatic body is obtained by distillation which has not yet been isolated, but which is soluble in alcohol and ether and is capable of combining with alkalis. The nucleins above mentioned are neutralised and slightly acidified with hydrochloric acid; treated with boiling alcohol they become soft and viscous, and without dissolving yield cerebrin. From the second group, after treatment with strong alcohol and sodium chloride, he obtains a precipitate of two globulins, and after filtration and addition of pure potash alkali globulin. The alkaline solution after being again filtered and distilled yields a ptomaine, an aromatic substance, a body intermediate between leucine and butalanine and volatile fatty acids. The latter he believes to be pre-existent normal products. On drying the globulins and exhausting them with alcohol in order to remove the cerebrin, the nucleins combined with fats are obtained together with a colouring matter, and aromatic substances, one of which resembles fish brine in smell. From the third group dried at 100° C. and exhausted with boiling alcohol he obtains cerebrin in large quantity and a body named nomocerebrin, which is gelatinous, refracts light strongly, and swells in water and alcohol. By further treatment of this group with alkali, chloroform, and acetone an oily substance crystallising in white needles fusible at

138° C., and becoming red by contact with sulphuric acid (erythro-cholesterin?) can be separated. By treatment with sulphuric acid, precipitation of the acid with baryta and addition of alcohol, an albuminoid, probably proteose, is isolated, and, finally, by boiling with a solution of soda and addition of alcohol, keratin alone is left.

#### THE PRINCE OF WALES'S HOSPITAL FUND FOR LONDON.

THE KING has intimated his pleasure that the Prince of Wales's Hospital Fund for London, established by His Majesty when Prince of Wales, shall in the future be known as "King Edward's Hospital Fund for London"; and that the change of name shall not come into effect until Jan. 1st, 1902.

#### THE PREVENTION OF TUBERCULOSIS.

IN a report which has been adopted by the Chelsea Borough Council Dr. Louis C. Parkes draws attention in an able manner to the causes which promote the spread of tuberculosis, and suggests measures which might be adopted to combat the disease. He quotes statistics to show that in Chelsea there has been a gradual decline in the mortality due to tuberculosis during the past 20 years and ascribes this reduction to the abatement of overcrowding, the better conditions of cleanliness now prevailing in the houses of the working-classes, and the better ventilation of rooms and workshops. The want of proper disposal of sputa, however, is a great source of danger to the community, and this can only be overcome by the education of those affected with the disease, and the responsibility for this lies mainly with the medical practitioner who should never fail to give patients the necessary precautions as to the use of spittoons and handkerchiefs. Dr. Parkes maintains that if any great advance is to be made in the prevention of tuberculosis it will be necessary to provide means by which those who are suffering from pulmonary tuberculosis and are unable through poverty or the nature of their homes to carry out the necessary precautions may be isolated in specially constructed sanatoriums for the treatment of this disease. He further urges that to be a success any scheme for the isolation and open-air treatment of consumptives in sanatoriums should be carried out on a large scale and should be independent of the Poor-law. He is of opinion that in London the proper body to provide such sanatorium treatment is the Metropolitan Asylums Board. Dr. Parkes argues that the principle involved in the isolation and treatment of consumptives in sanatoriums is the same as that involved in the isolation and treatment of scarlet fever, diphtheria, and enteric fever, and that it is a measure necessary to safeguard the public health. He points out, quite correctly, that the general hospitals in London are averse to the reception of consumptive patients for any but short periods, and also (with which statement we quite agree) that such patients as a rule are not benefited by a stay in those hospitals. He also says that the special hospitals for consumption in London are too few to be able to deal with any but comparatively small numbers of such cases and that there is often a long period of delay after application before a patient is admitted. Unfortunately, much of the above is only too true. Pulmonary tuberculosis is such a widely spread disease that to attempt to cope with it by the sanatorium method would be such an enormous task that any municipal authority might well shrink from the undertaking. This objection would be added to if, as Dr. Parkes suggests, in the case of the wage-earners of a family a fund should be made available for the maintenance of their families throughout the somewhat prolonged period of some six months during which, on an average, treatment is desirable. As the frequent appeals to the

charitable only too plainly demonstrate, great difficulty is experienced in maintaining the hospitals that already exist; and the tax-payer although he is a long-suffering individual, would resent the very heavy addition to the rates that such a scheme as the one suggested by Dr. Parkes would entail. It is true that the great majority of the wage-earning classes, and even the classes slightly above them, are unable to carry out in their own homes the necessary precautions in anything like an effective manner; and, as Dr. Parkes again rightly remarks, if others are dependent on them, adults afflicted with consumption continue their work so long as their health and strength permit and are a constant source of danger to their fellow workers. The whole subject is one beset with difficulties, but we beset not place ourselves in accord with Dr. Parkes's suggestions. We would suggest that certain modifications should be made in the Poor-laws and in the arrangements of the existing infirmaries whereby cases of pulmonary tuberculosis could be suitably treated. We would further remind Dr. Parkes that certain of the special hospitals for diseases of the chest are constructing (or are about to do so) branch hospitals in the country for the "open-air treatment," and we do not therefore feel ourselves justified in recommending the adoption of this proposal that new sanatoriums should be built under the control of the Metropolitan Asylums Board.

#### ST. LUKE AS A SURGEON.

THE Revised Version of the Greek Testament has more than justified itself, but who would have expected from so accomplished a scholar as Mr. Augustine Birrell, K.C., a fresh illustration of its need? Such, however, is the fact—all the more surprising that he was quoting from "the beloved physician" who stands first of the Synoptists in point of literature, whose Gospel, in fact, is designated by that consummate critic Renan as "*le plus beau livre qu'il y ait*." Speaking at Epsom on Nov. 20th on the all-absorbing question of the hour Mr. Birrell is reported to have said: "Our first duty will be to bring back thousands and tens of thousands of Boer prisoners and restore them to their farms. It would be an expensive work pouring oil and wine into the gaping wounds of war." To pour any such mixture "into" any such lesion would be "expensive" indeed! But what does St. Luke, who knew his business, represent as the practice of the Good Samaritan—a practice which he includes in his general praise of the benevolent act? "He bound up his wounds, pouring 'on,' not 'in' (*ἐπέχεω* not *ἐγχέω*), oil and wine." In other words, as the Good Samaritan applied the bandage he kept pouring oil upon it to keep it soft and prevent it from stiffening, while adding wine to stimulate the anæmic condition of the parts. Such were the therapeutics of the time—therapeutics (as we know from Galen) recognised as orthodox more than a century later, when, indeed, a paste combining the two liquids was a popular pharmaceutical preparation. Mr. Birrell, and many, we fear, besides himself, would be none the worse for reading "Some Lessons of the Revised Version of the New Testament"<sup>1</sup> by the great Cambridge theologian and exemplary bishop, the late Dr. Brooke Foss Westcott. There he will find an anecdote which, besides illustrating the need for a Revised Version, has a special interest for every medical man—for everyone, in fact, who makes the human frame the object of his reverential study and care. "Archbishop Whately," says Dr. Westcott, "in his last illness begged a friend to read to him St. Paul's description of the Christian's hope as he looks 'for the Saviour, the Lord Jesus Christ, who shall change' (so the friend read from the Authorised Version) '*our vile body*, that it may be fashioned

like unto His glorious body.' 'No, no,' interrupted the Archbishop, 'give his own words. He never called God's work *vile*.'" "And so now we read, 'who shall fashion anew the body of our humiliation, that it may be conformed to the body of His glory.' (Phil. iii. 21)."

#### SMALL-POX IN LONDON.

ON Saturday, Nov. 23rd, and on Sunday, Nov. 24th, the number of fresh cases of small-pox notified and removed was 22; on Monday, Nov. 25th, there were 13 fresh cases; on Tuesday, Nov. 26th, there were 21 fresh cases; and on Wednesday, Nov. 27th, there were 16 fresh cases.

#### A CASE OF ANOMIA AND PARAPHASIA WITH A FOCAL LESION.

DR. GEORGE H. THOMAS reports in the *Boston Medical and Surgical Journal* of Oct. 31st a case of peculiar interest, firstly because of its rarity, and, in the second place, because it adds a little more to our knowledge of the cerebral localisation of that form of aphasia known as anomia—i.e., the inability to recall the names of objects. The literature of the subject comprises two cases reported by Dr. Graeme Hammond,<sup>1</sup> one by Dr. Edwin Jack,<sup>2</sup> and an earlier one reported by Professor C. K. Mills of Philadelphia,<sup>3</sup> four cases in all. Reference to the subject of anomia in a case of cerebral hæmorrhage has already been made in these columns.<sup>4</sup> The present case is that of a man, aged 60 years, a lawyer. He was a healthy person, the father of several children, and free from syphilis and alcoholic habits. A few months before his present illness he had headaches "for the first time in his life," and on one occasion acted very strangely to his wife, "using profane language to her which he afterwards entirely forgot." He had always been a man of refined sensibility and fond of his wife. The headaches were diffuse but they were most marked on the left side of the head, and eventually they became more severe and persisted day and night. On consulting his physician in November, 1900, the latter observed that the patient "acted strangely and had a noticeable difficulty in finding words to express himself. .... On entering the [physician's] office the patient went to the stove, where a hot fire was burning, and stretching out his hands asked if there was a fire in the stove. The question was repeated several times by the patient," although the answer was each time in the affirmative. This and the headache and some difficulty of speech were the only symptoms. He was prescribed a sedative and slept slightly better on the following night. Next day he had to draw up several legal documents, which on examination were found to be carefully and correctly written. Later he called to see the physician, and in conversation he mentioned that gentleman's name several times, "but when asked directly to repeat the name he was unable to do so. Several attempts to repeat the name of his law partner failed completely. The doctor gave the names of a number of neighbouring lawyers, to all of which he shook his head and evinced much annoyance that his memory was so poor." After admission to the hospital these symptoms continued. His tongue became coated and dry, the breath was offensive, the pulse was weak and somewhat rapid (90 per minute), but the temperature was normal. The headaches persisted and he looked "worried and anxious, and his appearance was that of one suffering from sepsis." Vision, pupils, and optic discs were normal. There were no motor or sensory disturbances of the body. The knee-jerks were sluggish. Marked tenderness was present over the left mastoid region

<sup>1</sup> Medical Record, Dec. 9th, 1900.

<sup>2</sup> Boston Medical and Surgical Journal, Dec. 6th, 1900.

<sup>3</sup> Journal of Nervous and Mental Disease, 1895.

<sup>4</sup> THE LANCET, Feb. 24th, 1900, p. 552.

<sup>1</sup> Hodder and Stoughton, third edition, 1898.

and a fetid otorrhœa was observed together with deafness in the left ear. He "replaced one word for another, as in the use of adjectives," in speaking (paraphasia), but could read aloud without mistakes, understood written and spoken words, and wrote correctly from dictation. When shown an object, and asked to name it, he found it impossible, although he showed clearly that he knew the object and its uses. A large number of objects were tried with the same results. "Whenever he misnamed the object he knew his mistake at once, and after several attempts to give the correct name gave up in despair." When his name was mentioned he recognised it at once, but a few moments afterwards he failed when asked his name. He appeared to understand all written and spoken words. The urine was normal. The tenderness over the left supra-auricular region was now intense and the diagnosis was made of a lesion involving the left temporal lobe below the angular gyrus. On trephining at a spot one inch below the angular gyrus the brain bulged but appeared to be normal. A second trephine hole was made over the lateral lobe of the cerebellum with negative results. The patient died shortly afterwards and the necropsy showed the presence of mastoiditis with necrosed bone and foul-smelling pus in the mastoid cells. The brain was normal in appearance except in the posterior part of the inferior temporal gyrus, where an abscess cavity was found of about the size of a walnut, with thick, foul, viscid pus. The brain tissue around its margin for three-fourths of an inch was somewhat softened. The site of the lesion corresponded very precisely with that recorded by Professor Mills in the case of a patient with similar symptoms.

#### M. BERTHELOT.

THE great chemist M. Berthelot has just completed his 50 years of service as a scientific teacher—an occasion which was celebrated at the Sorbonne in Paris this week. No chemist perhaps has so well and truly helped to lay the foundations of chemistry as has M. Berthelot, and that the congratulations he received came from all civilised nations is no matter for surprise. His career has been a remarkable one. He became a professor at the early age of 24 years, and a brilliant investigator within a few years of this appointment, gaining enormous insight into the laws which lay at the root of chemical architecture. Perhaps his most epoch-making discovery was his demonstration of the true nature of glycerine as an alcoholic body capable of interacting with three molecules of such acids as acetic and palmitic, although his contributions to thermal chemistry were models of ingenuity, resource, and original conception. Later he attacked the question of synthesis and until the publication of his "*Chimie Organique fondée sur la Synthèse*" no systematic research had been attempted in the direction of building up compounds of carbon comparable with natural organic compounds by the union of the elements of which they are composed. We must remember, however, Wohler's synthesis of urea in 1828 and Kolbe's synthesis of acetic acid in 1845. But the methods subsequently employed by M. Berthelot were more simple and direct. He started, for example, with the elements themselves. He took carbon and hydrogen which produced acetylene; adding more hydrogen he got ethylene, and from this he obtained alcohol and a series of organic salts. Again, he set himself the task of proving that compounds identical in every respect with the products of animal and vegetable life may be formed from dead mineral matter. Thus in a series of experiments he employed the carbon obtained in the form of carbon dioxide from barium carbonate. It was then made to pass successively through the forms of carbonic oxide, formic acid, barium formate, ethylene, ethylene bromide, ethylene again, and finally into ethyl-sulphuric acid and its crystallised barium salt, from which the ultimate object of

these experiments—alcohol—was generated. It follows that water and carbon dioxide were the only compounds from which the elements of this alcohol were derived. Little wonder, then, that scientific men of all the civilised nations assembled at the Sorbonne to do honour to this great exponent of nature's methods and mysteries. Amongst those present were the President of the French Republic (M. Loubet), M. Moissan, M. Fouque, Dr. Fischer (of the Prussian Royal Academy), Professor Ramsay (representing the Royal Society), Professor Lieben of Vienna, and a number of others representing the learned societies or universities of the whole world.

#### DOLLS AND INFECTION.

It has been stated that the stuffing used in dolls has given decided evidence of a very objectionable origin, discarded articles of apparel such as cut-up neckties and scarves having been used for the purpose. Of course, if this be true, dolls so stuffed could easily be sources of infection. The matter is of some importance although we are not certain how far the statement is justified, but we have personally more than once experienced something in the nature of a shock on inquiring into the anatomy of the favourite, because indestructible, "gollywog," for certainly the pieces of cloth which comprised its inside did not look altogether free from reproach. However, there is no reason why dolls should not be stuffed with unobjectionable materials. We should like to go further and to suggest that the stuffing should consist of a material treated with a harmless antiseptic. Excellent stuffing for the purpose would be eucalyptus sawdust or antiseptic peat-wool, which is not expensive and which far from being injurious would probably exercise a beneficial effect. The instinctive fondness of children for kissing their "dollies" is well known, and it cannot be disputed that such kissing is at all times non-hygienic and it would be better if measures of disinfection could be employed whenever the practice is indulged in. The highly-scented handkerchief can be a pleasant means of accomplishing this purpose, and there is no reason why a doll could not be treated similarly with a pleasant antiseptic. The general idea that an antiseptic must be disagreeable in character, as is the case with carbolic acid, is, of course, erroneous.

#### THE ROYAL DENTAL HOSPITAL OF LONDON.

It is to be hoped that the excellent work which is carried on from year to year by the (now Royal) Dental Hospital of London will meet with that substantial encouragement which it deserves. According to the statement made by Mr. W. H. Woodruff who presided on the occasion of the annual dinner of the staff and present and past students of the hospital which was held at the Hôtel Métropole on Nov. 23rd no less than 69,000 operations had been conducted within the walls of the hospital during the past 12 months and the work in the new hospital continued to increase at an enormous rate. The institution is undoubtedly doing yeoman service in relieving the poor and necessitous, for, as Dr. J. W. Washbourn pointed out in proposing the toast of "The Hospital and School," during the past year over 40,000 teeth had been extracted, upwards of 16,000 had been filled, and 350 people had been provided with artificial teeth. Dr. Washbourn referred also to the great progress which had been made in dental surgery since the hospital was founded—a progress to which the students of that hospital had in no small measure contributed. It was satisfactory to know that at last they had gained entrance into a building which was better fitted for the philanthropic and educational needs of the institution. Since occupying the present new and commodious building the school committee had recorded

an unprecedented number of entries, as many as 55 new students having enrolled their names on the books. This was all the more satisfactory in view of the fact of the general diminution of entries this session at all the metropolitan hospital medical schools and in view also of a decided falling-off in the registrations of the General Medical Council. The authorities of the Royal Dental Hospital appeal urgently for assistance to discharge a mortgage of £55,000 upon the new building, towards which it is necessary to raise a sum of £4000 each year. During the evening some donations were promised.

#### THE LORD MAYOR'S BANQUET AND THE MEDICAL PROFESSION.

At the recent Guildhall banquet the two English Royal Medical Colleges and the General Medical Council were for the first time represented officially. We learn that this happy innovation is due to a member of the Council of the Royal College of Surgeons of England who laid the matter before Sir Joseph Dimsdale. The present Lord Mayor, as we have pointed out on a previous occasion, numbers an illustrious physician among his ancestors, so it is fitting that the new departure should have been made under his aegis, but, further, the medical profession is closely connected with the City. The Royal College of Surgeons of England grew after many years out of letters patent granted by Edward IV. to the "Freemen of the Mystery of Barbers of the City of London, using the Mystery or Faculty of Surgery," while the Royal College of Physicians of London for years had its habitation under the shadow of St. Paul's. It is interesting to note that the latter College was founded because Henry VIII. thought that it would be an excellent thing "si improborum conatibus tempestive occurramus apprimere necessarium duximus improborum quoque hominum, qui medicinam, magis avaritiæ suæ causâ, quam ullius bonæ conscientiae fiduciâ, profitentur, unde rudi et credulæ plebi plurima incommoda oriantur, audaciam compescere." His Majesty's desire, however laudable, was not fulfilled, although the College prospered, and so, 340 years later, the General Medical Council was founded to enable persons requiring medical aid to distinguish qualified from unqualified practitioners. The unlettered and credulous populace, however, to say nothing of persons in higher ranks of society, are still prone to employ the class of practitioner described by Henry VIII. as *improbus*. We are not unmindful of the banquet given to the medical profession in May, 1898, by Colonel H. D. Davies when Lord Mayor, but we are nevertheless glad that the first year of a new reign should have seen our profession officially represented at the great City festival on Nov. 9th, which is moreover the King's birthday.

In connexion with the West Kent Medico-Chirurgical Society the Purvis Oration on General Practice and Original Research will be delivered by Dr. James F. Goodhart at the Royal Kent Dispensary, Greenwich-road, Greenwich, on Friday, Dec. 6th, at 8.45 P.M. After the oration a conversazione will be held and there will be an exhibition of lantern views of foreign health resorts, electrical and scientific apparatus, surgical instruments, therapeutic preparations, and diabetic foods.

Dr. C. J. CULLINGWORTH'S term of office as obstetric physician to St. Thomas's Hospital having expired in June last the hospital authorities, in very complimentary terms, have offered him an extension of three years. Dr. Cullingworth has, however, been advised that he ought to diminish his work, for which reason, and because he was anxious not to hinder the ordinary course of promotion, he accepted the

gratifying offer of the Governors with the understanding that his colleague, Dr. Walter W. H. Tate, should be appointed full obstetric physician and become responsible for the larger share of the routine work of the ward. This suggestion having received the support of the staff of the hospital, the technical difficulties were removed, and at the last meeting of the Court of Governors Dr. Tate was elected an additional obstetric physician with charge of 21 out of the 28 beds, the remaining seven being allotted to Dr. Cullingworth.

At a meeting of the council of the Association of Public Vaccinators of England and Wales, held on Nov. 22nd, the publication of a notice in the *Standard* by the lay organising secretary was considered, and the council expressed its regret that such a communication should have been made to the press without its knowledge or sanction.

THE Bradshaw Lecture of the Royal College of Surgeons of England will be delivered in the theatre of the College by Mr. T. R. Jessop on Wednesday, Dec. 11th, at 5 P.M., the subject being Personal Experiences in the Surgical Treatment of Certain Diseases.

THE annual conversazione of the Royal British Nurses' Association will be held under the patronage of the President, H.R.H. Princess Christian of Schleswig-Holstein, at the Kensington Town Hall, on Tuesday, Dec. 3rd, at 8 P.M.

DR. W. H. CORFIELD, consulting sanitary adviser to His Majesty's Office of Works, has been awarded by the Royal Society of Public Medicine of Belgium its bronze medal in recognition of his devotion to public health work.

THE twenty-third annual dinner of the Leeds Past and Present Students is to be held on Thursday, Dec. 5th, at the Queen's Hotel, Leeds, at 7 P.M. Mr. C. J. Wright will preside.

DIPHTHERIA.—At the meeting of the Bridgewater Town Council held on Nov. 21st, the medical officer of health (Mr. F. J. C. Parsons) reported that since July last there had been 75 cases of diphtheria notified in the borough, 16 of which had terminated fatally. Mr. Parsons added that he regretted that the isolation hospital had not been more generally used. At the meeting of the Barton Regis Rural District Council held on Nov. 22nd it was reported that during the present year 160 cases of diphtheria had occurred in the district, which is in the immediate neighbourhood of Bristol. The majority of the cases had occurred at Shirehampton. At present there were 32 patients in the isolation hospital.

COCAINE POISONING.—Referring to the case of alarming symptoms induced by cocaine used as a local anæsthetic, recorded by Dr. Kenneth Fraser in THE LANCET of July 20th, 1901, p. 145, a correspondent points out that a somewhat similar case was published in the *Australasian Medical Gazette* of April 20th, 1901. The patient was a healthy woman, 30 years of age, who had several stumps of teeth extracted, 30 minims of a 1 per cent. solution of cocaine being injected into the gums without giving much, if any, relief from pain. A fortnight after this event further extractions were required, and the medical man injected "a quarter of a grain of cocaine tincture" into the gum where it seemed most tender. After waiting 10 minutes he repeated the dose, the gums being apparently in no way anæsthetised by the quarter of a grain. Within two minutes the patient was in a most alarming state; her colour suggested syncope, her respiration became very rapid and shallow, and her pulse rapid and fluttering. An ounce of compound spirit of ammonia was administered in small doses frequently repeated, and artificial respiration was maintained, but it was fully an hour before she ceased to sigh and to complain, having been unconscious most of the time.

# Looking Back.

FROM

THE LANCET, SUNDAY, NOV. 30, 1823.

JONAH'S RESIDENCE IN THE WHALE'S BELLY ACCOUNTED FOR ON PHYSIOLOGICAL PRINCIPLES, BY DR. PEARSON.

PHYSIOLOGICAL facts are never more interesting than when they are found to confirm the great truths of our religion, and to afford a satisfactory explanation of phenomena which infidels have treated with derision, without the necessity of resorting to a miraculous agency. Dr. Pearson, of George-street, Hanover-square, in lecturing a few days ago upon the stomach, observed, that this organ had no power over substances endowed with vitality; and that this circumstance accounted for the fact of the prophet Jonah having remained undigested in the stomach of the whale for the space of three days and three nights. Dr. Pearson's discovery is highly important, both in a medical and theological point of view: it furnishes a complete answer to all the objections which have been urged by sceptics against that part of the Sacred Volume in which this singular adventure is related. How the prophet passed his time in the cavity of the whale's stomach—how far the confinement affected his organs of respiration—in what manner he derived his sustenance, or whether he required any sustenance at all, are all questions of minor importance. The fact of the stomach having no power over vital substances having been once established by Dr. Pearson, the corollary is obvious. The argument may be thus stated:—When Jonah entered the whale's stomach, either he was alive or he was not alive. If he were not alive, the stomach would have had the same power over him as over any other inanimate substance, and the prophet would have been digested in the ordinary way; but he was vomited out alive on the fourth day; consequently he was alive when he entered the stomach. Now, as he was alive when he entered the stomach, and as the stomach has no power over a living substance, it is evident that he must have continued to live. Hence, when the action of vomiting was excited, and he was thrown up on the fourth day, he was deposited on the dry land, probably without any other inconvenience than some trifling derangement of his canals. Dr. Pearson deserves the thanks of the pious, as well as the philosophical part of the community, for having explained this phenomenon in a manner which renders it as demonstrable as any of the propositions of Euclid.

## MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

A GENERAL meeting of this association was held in the rooms of the Medical Society of London, Chandos-street, Cavendish-square, W., on Nov. 21st, Dr. G. F. BLANDFORD being in the chair.

Mr. E. D. O'NEILL (Limerick) moved the following proposition:—

Resolved, that the Medico-Psychological Association of Great Britain and Ireland earnestly desires to call the attention of Government to the great injustice inflicted on Irish asylum officials by the wording of the clause of the existing Act of Parliament dealing with the question of superannuation. It regrets that the Government did not avail themselves of the opportunity afforded by recent legislation to make more secure the provision for old age in the asylum service. The association respectfully urges on the Government an alteration of the said clause by the introduction of the word "shall" instead of "may." It points out that all other services have a fixed scale of pension, and every official knows when he is entering what he will be entitled to on retirement; whereas asylum officials are left entirely to the discretion of their committees, from whom there is no appeal.

Resolved, that a copy of the foregoing resolution be forwarded to the Right Hon. George Wyndham, M.P., Chief Secretary for Ireland.

Mr. HAYEN NEWINGTON seconded the motion. He said that the Parliamentary Committee of the association, of which he was the president, had had the matter before them for 10 or 12 years.

The motion was unanimously carried.

Sir THOMAS LAUDER BRUNTON delivered an address on the subject of "Fairies, Apparitions, and Hallucinations." He explained that by hallucinations he meant

perceptions having no objective cause; by illusions, perceptions having an objective cause wrongly interpreted; by visions, hallucinations of the sense of sight; and by apparitions, appearances or hallucinations affecting some one person or thing that the person seeing the vision has known. The changes in the nerve-cells of the brain which accompanied perception were usually originated by some impress made upon the senses of sight, hearing, taste, smell, and common sensation, which were conveyed by the nerves to the brain, where they were perceived. Some persons had an almost miraculous keenness of sense, of which he gave some striking instances in savages. Just as some people could hear sounds to which others were deaf, and others saw things to which their fellows were blind, so some persons could feel what others could not. He dealt at length with the locating of water underground by the aid of the divining rod, and said that he believed the power was possessed by some people, but that they were all of a highly sensitive character. This sensitiveness could be influenced by drugs; the tendency of strychnine was to make the senses keener while cocaine made them blunter. He explained at length some experiments which he had made on the subject of thought transference and allied phenomena, and referred to the involuntary continuance of the association of ideas which had once been strongly fixed in the mind. When a student began to learn auscultation he did not really hear what was in the chest but what he thought he ought to hear. He next dealt with the subject of premonitions, and advanced ingenious explanations of the phenomena. Since the discovery of wireless telegraphy it was reasonable to suppose that one man's brain might act as a transmitter and that of another person as a receiver. Apparitions were often traceable to an alteration of the apparatus concerned, as in the case of a lady who said she saw a goat's head projected before her and who was found to have a central scotoma corresponding to the shape of a goat's head. Head had shown that salicylate of sodium would produce visions and those might also arise from superficial cerebritis and brain irritation. The Koran was said to have been communicated to Mahomet in visions, and it would be interesting to speculate on what the fate of the world would have been if bromide of potassium had been known and Mahomet had been thoroughly dosed with it.

Dr. G. H. SAVAGE said that Sir T. Lauder Brunton's remarks about the limitation of our senses were all-important, and Sir Samuel Wilks used to say, when going through the Bethlem wards, "How do you know that those hallucinated people are not speaking the truth and that it is not your ignorance which makes you deny that there are voices and visions?" He (Dr. Savage) recognised that there were many "x rays" associated with the senses, and he regarded the explanations given by Sir T. Lauder Brunton of some of the telepathic experiences as being altogether satisfactory. Regarding hallucinations, he was in the habit of saying to students that he had not read an *Æsop's* fable which had not at some time been represented in the hospital wards.

Dr. C. MERCIER highly complimented Sir T. Lauder Brunton on his address. He agreed with Professor Clifford Allbutt that the supernatural should not be drawn upon for elucidating phenomena until all natural laws had been exhausted. Sir T. Lauder Brunton had shown that many things usually regarded as occult could be explained by known natural laws.

Mr. NUTT, of the Folk-lore Society, drew attention to the similarity of the signs and forms observed at all periods of history and in all countries, and thought that the explanation was to be sought in a "law of convention."

Dr. ROBERT JONES (Claybury) said that the truth probably lay between the two views which had been mentioned. Children and untutored savages had always shown a strong regard for personifying the great forces of nature. He agreed with Sir T. Lauder Brunton that hallucinations were often due to association of ideas, but might be spontaneous from the subliminal consciousness. He had never seen a deaf-mute with a hallucination of hearing, or a hallucination of sight in a person congenitally blind. Hallucinations could not be a new creation.

Sir T. LAUDER BRUNTON, in reply to Mr. Nutt, mentioned that the uniformity of signs and forms was probably due to headaches and other disturbances being produced in the same way the world over.

Dr. W. C. SULLIVAN, of H.M. Prison, Pentonville, read a paper entitled, "Crime and General Paralysis." After

referring to the large number of general paralytics sent to prison, it was pointed out that the offences of which they were guilty were almost always crimes of acquisitiveness. In this respect they contrasted with senile and alcoholic lunatics, who rarely had impulses of acquisitiveness, but were very prone to suicidal and homicidal impulses. The reason of this contrast was to be found in the difference of the emotional tone in these states of dementia—usually pessimist in the senile and alcoholic and optimist in the general paralytic. The emotional tone in all states of mental enfeeblement was a reflex of the visceral condition, and not a direct effect of the brain lesions. This tone, with the related impulses, preceded and determined the modes of thought; the dement with healthy viscera had impulses of acquisitiveness and delusions of exaltation, while the dement with diseased organs had impulses of aggression and delusions of persecution or depression. The priority of insanity of conduct to insanity of thought was the most important fact in criminal psychology.

Dr. ROBERT JONES said that the paper dealt with a field of psychical research in which the majority of those present had no experience—viz., the insane in prisons. Bevan Lewis had shown that physically the condition of the nerve- or brain-cells did not vary very much in mania and melancholia. Dr. Sullivan had said that general paralytics who came under his care were of the depressed type, and that agreed with his own experience in regard to those received into the asylum from prisons. Dr. Jones also alluded to the researches of Ford Robertson into the condition of the intestinal mucous membrane in general paralytics as bearing upon the emotional tone.

Dr. T. SEYMOUR TUKE mentioned the case of a well-preserved man, aged 62 years, who had been in the habit of massaging every muscle each day and who had had great exaltation from the start.

Dr. SULLIVAN briefly replied, pointing out that some of the post-mortem conditions referred to by Bevan Lewis were not unanimously accepted. What the underlying cerebral condition was which accounted for tone was still a matter of speculation.

### THE CLAMOND GAS RADIATOR.<sup>1</sup>

OWING to the introduction of the incandescent mantle by Auer von Welsbach, gas-lighting, as is well known, has been enormously improved during recent years, but it is remarkable that with this progress no corresponding advance to speak of has hitherto been made in the methods of heating by gas. Yet it might be thought that as the improvements in gas-lighting have been due to the fact that increased heating effects have been obtained from coal gas similar improvements would have applied to gas-heating appliances with advantage. However that may be, it is only quite recently, apparently, that the idea occurred of applying to gas-stoves the now well-known modification of the atmospheric burner, the Kern burner so successfully used in incandescent lighting because of its intense heat.

The Kern burner is an enormous advance on the ordinary atmospheric burner producing the Bunsen flame and the many advantages which it unquestionably gives in incandescent lighting must *a priori* obtain where the burner is applied for heating purposes. The construction of the Kern burner is quite simple; it only differs from the Bunsen burner in having its anterior mixing chamber somewhat larger and shaped like two funnels placed end to end—that is to say, the gas is injected into a funnel-like opening and passes on to a constricted part which widens out again in funnel fashion. The burner contains also a metal cylinder provided with an infinite number of tiny perforations. The gaseous mixture effected contains exactly the proportions of coal gas and air required for complete combustion. In reality the Kern burner deals with complete safety with an explosive mixture, and since the proportion of gas and air is exactly what is required by theory for complete combustion a maximum heating effect is obtained and no unburnt products are produced. The result is that the Kern flame continues to burn even though it be surrounded by a tube cutting off the external air because the gas is mixed

with air in sufficient proportion to complete its combustion. This proportion is one volume of gas to five and a half volumes of air. In most of the atmospheric gas-burners used in gas-stoves the proportion of air to gas seldom exceeds three to one, so that if the flame were cut off from contact with the external air the combustion would necessarily be incomplete. The Kern flame is without luminosity and of exceeding intensity. It resembles, in fact, a blow-pipe flame, though it is produced automatically and without pressure. The flame may be employed to produce radiant heat or light at will.

In the Clamond gas radiator<sup>2</sup> the intense heat of the Kern flame is in great part translated into radiant heat by surrounding it with a perforated fire-clay tube, as seen in Fig. 1. This fire-clay tube is the radiator in the Clamond

FIG. 1.



heater much as is the carbon filament in electric heaters. The Clamond gas radiator consists essentially of a number of these tubes, generally five or ten, placed over Kern burners, each consuming two cubic feet of gas per hour. The gas may be turned on to all of the tubes, or to five of them, in accordance with the heating effect desired. Fig. 2 and Fig. 3 show two forms of the radiator, the former of which is without a casing or jacket, while the latter is cased with iron sheeting in such a way that heat is derived from the flues and thus currents of warmed air are circulated. The Clamond radiator is provided with a flue and it is necessary that the flue should be inserted through a hole in a sheet-iron plate covering up the fireplace. A further important arrangement is the iron curtain just over the top of the radiating tubes. This is adjustable and prevents the escape of combustion products into the room. The essential feature of the Clamond heater is that it produces radiant heat, and this fact, coupled with the economy which is effected, favourably distinguishes it from all others.

The ideal system of artificial heating is undoubtedly by radiation, according to which heat particles are projected into space without immediate effect upon the air. These particles in encountering solid objects impart their heat to them and thus the heat of a radiating fire may be communicated across space to distant objects without appreciably affecting the temperature or the physical condition of the intervening air. The freshness or "vitality" of the air is in no way disturbed by the passage of radiant particles through it. On the other hand, hot air is unhealthy and oppressive. The method of heating by hot-air currents or by convection is, however, more economical than by radiation, but this economy is to a very large extent obtained under the enormous disadvantage arising from the usually unhealthy condition of the air produced by warming it in contact with superheated surfaces. It is a common experience that radiant heat is by far the most comfortable and most endurable.

Of course, the heating efficiency of coal-gas may be wholly utilised by simply allowing it to burn in the open room without any provision for carrying away the products of combustion. Thus a row of Kern burners placed in a room would impart to the air of that room that amount of heat which the gas is capable of giving, but practically the whole of the heat produced would be communicated by means of air warmed and kept circulated by the flames. There would be no radiant heat, and the effect upon the air, apart altogether from the products of combustion, would be unhealthy. When, however, a resistance is introduced into the flame in the shape of an indestructible solid body more or less suited to the purpose the result is the production of heat in a radiant form. The body becomes more or less red-hot. It is analogous to the production of light by introducing the mantle of the rare earths into the flame. In a word, heat in the radiant, and in the most healthy, form is obtained by placing a resistance in the path of the flame; and this is exactly the principle of the Clamond gas radiator, a principle adopted in many gas-stoves but not satisfactorily realised in practice.

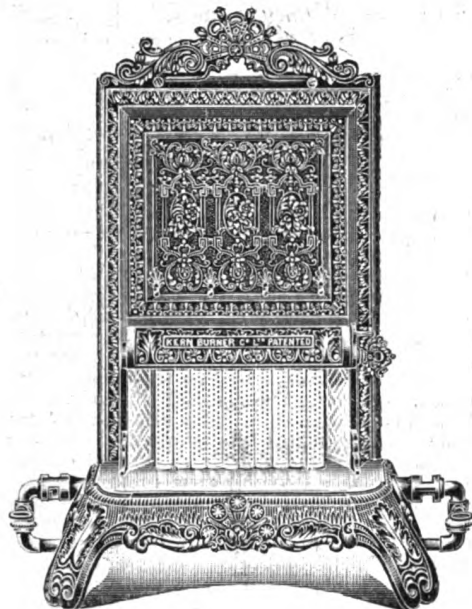
As the experiments to be described show, the Kern burner deals efficiently with the combustion of coal gas, and therefore yields a maximum heat intensity, so that it is calculated to prove a source of heat free from reproach from a hygienic

<sup>1</sup> Previous articles upon the subjects of gas-stoves and smoke prevention and perfect combustion will be found in THE LANCET of March 21st, 1891; March 5th, 1892; and Nov. 25th, 1893.

<sup>2</sup> Kern Burner Co., Gravel-lane, Southwark, London, S.E.

standpoint, for the more intense the heat the more effectual will the combustion be. There are, then, two main points to be considered in estimating the value of a gas fire: first, its heating efficiency—that is, the heat which it is able to realise from a given amount of gas consumed; and, secondly, the influence of the system upon the air from a sanitary point of view. We may dismiss at once, of course,

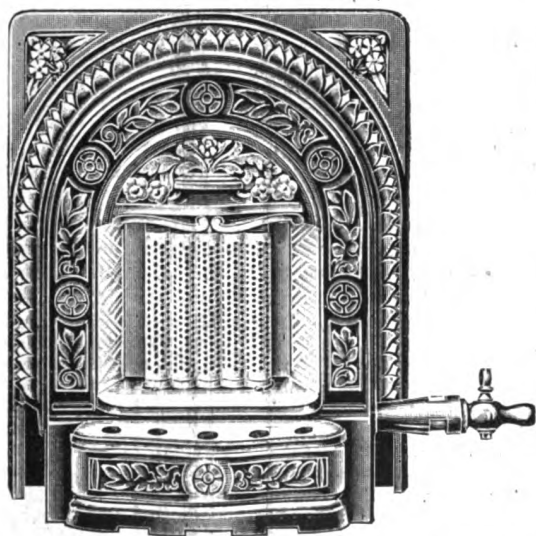
FIG. 2.



any possibility of the formation of smoke, but invisible products of combustion may be not a whit less injurious and the gas-stove that produces them and allows them to escape into the air should be summarily condemned.

The experimental portion of this inquiry relates therefore to the heating efficiency of the Clamond gas radiator, whether effected by radiant heat or by convection, the effect

FIG. 3.



upon the air from a hygienic point of view, the composition of the gases in the mixing chamber of the Kern burner, and the progress of combustion as determined by an analysis of the gases within the fire-clay tube or radiator and of the gases ultimately escaping by way of the flue.

The following tables—Tables I., II., III., and IV.—record results showing the heating efficiency of the Clamond gas radiator and its effect upon the air. Tables I. and II.

refer to a stove furnished with a hot-air chamber. It was cased in sheet iron provided with air inlets and outlets. Tables III. and IV. give the results obtained with a stove without such casing, so that the heating effect was due in great part to radiant heat. The experiments were all conducted in a room of 1500 cubic feet capacity. The cost of gas is assumed to be 3s. per 1000 cubic feet. The temperatures throughout are recorded in degrees Fahrenheit.

TABLE I.—HEATING EFFICIENCY OF STOVE (FIG. 3) AND ITS EFFECT UPON THE AIR.

*Experiment 1.*—Stove with hot-air chamber, without iron curtain; pressure of gas three inches; consumption 22 cubic feet per hour.

1. Time	4.28	4.58	5.28	5.58	6.28
2. Temperature two feet in front of fire	54	103	118	119	119
3. Temperature six feet in front of fire	52	62	66	67	68
4. Temperature of room (mean)	51	56	59	61	63
5. Temperature of currents over stove	53	184	220	221	220
6. Moisture in the air (100 = saturation)	88	82	79	82	79
7. CO <sub>2</sub> in the air at breathing level	5.4	—	7.10	—	8.0
8. Increase of CO <sub>2</sub> from the start (parts per 10,000)	—	—	1.7	—	2.6

Result (based on two hours' working): 44 cubic feet of gas, costing 1.58d., raised the temperature 12 degrees in two hours. Cost per degree = 0.13d., or a consumption of 3.6 cubic feet of gas.

TABLE II.—THE SAME STOVE.

*Experiment 2.*—Pressure of gas two inches; consumption 20 cubic feet per hour.

1. Time	7.45	8.15	8.45	9.15	9.45
2. Temperature two feet in front of fire	52	103	112	116	120
3. Temperature six feet in front of fire	52	62	64	68	70
4. Temperature of room	52	57.5	61	63	65
5. Temperature of currents over stove	52	210	220	240	250
6. Moisture in the air	94	94	94	94	94
7. CO <sub>2</sub> in the air	5.4	—	6.2	—	7.4
8. Increase of CO <sub>2</sub> from the start (parts per 10,000)	—	—	0.8	—	2.0

Result (based on two hours' working): 40 cubic feet of gas, costing 1.44d., raised the temperature 13 degrees in two hours. Each degree raised cost 0.108d., or three cubic feet of gas.

TABLE III.—STOVE SHOWN IN FIG. 2.

*Experiment 1.*—Gas pressure two inches; consumption 20 cubic feet per hour.

1. Time	10.0	10.30	11.0	11.30	12.0
2. Temperature two feet in front of fire	50	102	112	116	117
3. Temperature six feet in front of fire	50	61	63	65	66
4. Temperature of room	50	55	58	60	61
5. Temperature of currents above stove	50	132	132	128	126
6. Moisture in the air	91	88	88	88	88
7. CO <sub>2</sub> in the air	3.5	—	4.2	—	4.4
8. Increase of CO <sub>2</sub> (parts per 10,000)	—	—	0.7	—	0.9

Result (based on two hours' working): 40 cubic feet of gas, costing 1.44d., raised the temperature of the room 11 degrees in two hours. One degree cost 0.13d., or 3.6 cubic feet of gas.

TABLE IV.—THE SAME STOVE.

*Experiment 2.*—Gas pressure two and a half inches; consumption 18 cubic feet per hour.

1. Time	2.0	2.30	3.0	3.30	4.0
2. Temperature two feet in front of fire	53	112	115	115	117
3. Temperature six feet in front of fire	53	65	67	68	68
4. Temperature of room	53	60	63	64.5	65
5. Temperature of currents above stove	53	130	132	132	132
6. Moisture in air	88	88	85	88	88
7. CO <sub>2</sub> in the air	3.6	—	4.0	—	4.2
8. Increase of CO <sub>2</sub> (parts per 10,000)	—	—	0.4	—	0.6

Result (based on two hours' working): 36 cubic feet of gas, costing 1.30d., raised the temperature 12 degrees in two hours. One degree cost 0.108d., or three cubic feet of gas.

As will be seen, the heating efficiency of the Clamond gas radiator is very great and we doubt whether such an output of radiant heat has ever before been attained at so little cost and so low an expenditure of gas. Thus in the case of the gas stoves examined by THE LANCET Commission in 1893 the mean amount of gas required to raise the temperature one degree was 5.4 cubic feet, costing 0.195d., whereas with the Clamond gas radiator the amount of gas required to effect the same advance of temperature is three cubic feet at a cost of 0.108d., nearly half the consumption and cost. The fact that the stove produces effective radiant heat is evident from the records of two thermometers, one placed two feet in front of the fire and the other six feet. The former showed after two hours a temperature of from 117° to 120° F. and the latter of from 68° to 70° F., the temperature of the room being many degrees less. It is also shown that the heating effect of the stove is soon realised, the temperature of the room having been raised from 50° to 61° F. in half an hour in some instances, with a consumption of only 10 cubic feet of gas. Nor is this heating efficiency obtained at the expense of the purity or healthy condition of the air. The degree of moisture varied only within small limits, while the increase in the proportion of carbonic acid was quite insignificant.

It will be noticed, however, that the stove provided with a heating chamber (Tables I. and II.) gave rise to a greater increase of carbonic acid gas than was the case with the stove without a heating chamber (Tables III. and IV.). This is to be accounted for partly by the fact that the former stove is not provided with an iron curtain over the top of the fire-clay radiators, as is the case with the latter stove, and partly to the hot-air currents from the heating chamber having a tendency to draw with them traces of the products of combustion. As, however, the heating efficiency of the stoves is practically the same the hot-air chamber would appear to afford no advantage, either as regards heating efficiency or hygienic effect. A rough but very practical proof of the radiant heat projected by the Clamond radiator can be obtained by exposing a slice of bread to the rays, as in making toast.

It is interesting next to examine the gaseous mixture effected by the Kern burner. In a series of five analyses the average result was found to be one part of coal gas to 5.5 parts of air. On igniting the mixture in a closed tube over mercury complete combustion was proved to have ensued, nothing but carbonic acid gas, nitrogen, and water remaining. There is therefore in the Kern burner neither excess of gas nor excess of air, the ratio of one to the other being exactly in accordance with theoretical requirements for perfect combustion. The atmospheric burners of ordinary gas stoves, on the other hand, seldom effect a mixture in which the air exceeds the gas by three volumes. Most burners gave the ratio of 2.3 of air to 1 of coal-gas.

The next table (Table V.) is of interest in showing the composition of the gases taken from the middle of the fire-clay tube or radiator.

TABLE V.—Composition (by volume) of the Gases taken from the Middle of the Fire-Clay Tube.

	Experiment 1.	Experiment 2.
Carbonic Acid (CO <sub>2</sub> )	5.20	5.50
Oxygen (O)	1.46	1.25
Carbon Monoxide (CO)	7.08	6.50
Hydrogen (H)	6.04	8.00
Hydrocarbons	1.46	3.00
Nitrogen (N) by difference	78.76	75.75
	100.00	100.00

The results give the history and progress of the combustion. The bulk of the hydrogen and methane are evidently burnt at the lower part of the tube, while the carbon monoxide with some hydrogen and hydrocarbon burn in a blue fringe of flame near the top of the fire-clay tube, ultimately yielding complete products of combustion, as shown in Table VI.

TABLE VI.—Composition (by volume) of the Gases taken from the Top of the Fire-Clay Tube.

	Experiment 1.	Experiment 2.	Experiment 3.
Carbonic Acid (CO <sub>2</sub> )	6.76	6.08	6.00
Carbon Monoxide (CO)	No trace	No trace	No trace
Oxygen (O)	8.70	9.94	10.24
Nitrogen (N) by difference	84.54	83.98	83.76
	100.00	100.00	100.00

This table demonstrates the interesting and most important fact that in the Clamond gas radiator the combustion of coal gas is complete, and without the production of those partly burnt gases or escaping unburnt gases which are injurious to health. In no instance was the deadly carbon monoxide found either in the gases escaping from the flue or in the air of the room, although the most approved test for this gas was applied—viz., after absorbing all the oxygen by phosphorus the residual gas was shaken with fresh blood. The result was always negative. This is hardly surprising when we consider the intensity of the Kern flame. The result speaks highly in favour of the Kern burner as a hygienic means of warming and maintaining the temperature of a room.

A few words may be added on the management and conduct of the Clamond gas radiator. It is easily controlled, readily lighted, and is free from that great drawback of atmospheric burners—it cannot “light back”—that is to say, the flame never runs back to the gas nipple. It is important that the pressure and the supply of gas should be sufficient. The Kern burner, however, is not always free from that whirling noise characteristic more or less of all gas-stoves. Improvement in this direction is desirable and doubtless will be attained unless the noise is an inevitable concomitant of burners through which a mixture of gas and air is passing. The heat of the Clamond gas-radiator may be easily regulated, the stove being provided with two stop-cocks, each controlling five burners. In some cases it appears to be desirable to be able to reduce the number of burners still further, so powerful is the heating efficiency.

Under any circumstances we think the Clamond gas-stove should be properly attached to a chimney-vent, the flue running through a hole provided in sheet-metal casing. The sulphur compounds inseparable from coal-gas demand this precaution, while however perfect the combustion may be it is not desirable to diminish the proportion of oxygen in the air by adding carbonic acid gas to it. The Clamond gas radiator resembles closely in appearance the electric radiator: it presents a bright cheery-red heat within a few moments of its being lighted, thus obviating any cooling down of the products—a process which leads to the formation of unburnt and injurious gases which is one of the drawbacks of the ordinary gas-fire where a mass of inert fire-clay has to be heated.

The results of this inquiry distinctly confirm what is claimed for the Clamond gas radiator—it gives a cheerful, healthy, radiant heat, is remarkably economical, and, as far as our experiments have gone, shows no deteriorating effect upon the air.

THE LANCET Laboratory.

## THE GENERAL MEDICAL COUNCIL: ELECTION OF DIRECT REPRESENTATIVES, 1901.

### THE MEDICAL GUILD OF MANCHESTER AND DR. WOODCOCK'S CANDIDATURE.

WITH reference to the official announcement of the guild that was published in THE LANCET last week to the effect that it had been resolved to urge members of the guild to plump for Dr. S. Woodcock, Mr. G. H. Broadbent has sent us a copy of a letter to the president of the guild protesting against the way in which the resolution was obtained. This letter has been signed, he informs us, by several prominent members of the council of the guild who consider the action of the chairman of the meeting at which the resolution was passed to have been irregular.

### THE CANDIDATURE OF MR. GEORGE BROWN AND MR. GEORGE JACKSON.

A meeting, which was attended by about 40 of the medical practitioners of Halifax and neighbourhood, Dr. E. West Symes being in the chair, was held on Nov. 26th at the White Swan Hotel, Halifax, to hear addresses from Dr. J. Brassey Brierley, Mr. Colin Campbell, and Mr. G. H. Broadbent, a deputation from the Manchester committee of Mr. George Brown and Mr. George Jackson. At the conclusion a vote of thanks was passed to the former gentlemen and those present unanimously pledged themselves to support the two candidates in question. A further motion was carried earnestly protesting against any Bill being passed by Parliament which had for its object the creation of an order of practitioners licensed

only to practise any one branch of the profession. Dr. Brierley pointed out that the General Medical Council had really no legal power to sanction any certificate issued to women who were not recognised medical students.

## ASYLUM REPORTS.

*Gartloch Asylum, Glasgow (Annual Report for 1900).*—The average number of patients resident during the year was 522, and comprised 273 males and 249 females. During the year 268 patients were admitted, of whom 131 were males and 137 were females. Dr. Landel R. Oswald, the medical superintendent, states in his report that the admissions continue to show a steady increase. "The probable causes of the insanity among the male admissions were principally alcohol, syphilis, and the adolescent period of life. .... Among the females moral causes were more highly operative, especially when a mental breakdown was predisposed to by inherited nervous instability." The admissions were generally of an unfavourable type as regards the prospect of recovery. An hereditary predisposition to insanity was found in nearly 40 per cent. of the admissions and though the influence of environment in causing insanity cannot be accurately estimated it is probable that in many of the admissions it acted powerfully as a cause. The number of patients discharged as recovered during the year was 84—viz., 37 males and 47 females, or 16.1 per cent. of the average number resident. The deaths during the year amounted to 60—viz., 25 males and 35 females, or 11.5 per cent., as calculated on the same basis. Of the deaths one was due to purulent meningitis, two each were due to epilepsy and puerperal septicaemia, three to pneumonia, six each to cardiac disease and senile decay, seven to general paralysis, 11 to phthisis and other forms of tuberculosis, and the rest to other causes. In 88 per cent. of the deaths post-mortem observations were made to ascertain the cause of death. "16 per cent. of the deaths were due to phthisis pulmonalis or other form of tuberculosis. Beyond doubt the larger proportion of those who died from phthisis contracted the disease here." Six patients escaped during the year, and two such patients having remained absent for 28 days were regarded as discharged. In view of the increasing admissions and of the accommodation required for the same the Asylum Committee have decided that additional buildings shall be erected which will take the form of detached houses of the following number and character: a small sanatorium for the treatment of phthisis and capable of accommodating 50 patients, a farm colony for 60 patients (50 males and 10 females), a house near the male wards for the accommodation of about 50 male cases of senile weak-mindedness and insanity, a villa for 36 women where among others there will be placed those whom it is desired to test before discharging or boarding-out, and a house for about 50 female cases of insanity and mental infirmity associated with old age. The farm report stated that the harvest and garden produce were good and abundant. "The year has been, as a whole one of the development of existing arrangements and methods of treatment rather than one of trial of new ideas. .... The treatment of acute cases by rest in bed and isolation has been more successful [than before]." The Brabazon scheme continues to give interesting employment to about 30 patients. Owing to the epidemic of small-pox in the city of Glasgow the patients generally were revaccinated and other precautions were taken, with the happy result that the disease did not invade the asylum. The Commissioners in Lunacy state in their report that the hospital was in excellent order and that the medical books were well kept.

*Warneford Asylum, Oxford (Annual Report for 1900).*—This is a private asylum for patients of both sexes. The average number of patients resident during the year was 94, and comprised 46 males and 48 females. During the year 23 patients were admitted, of whom 22 were first admissions. Dr. James Neil, the medical superintendent, states in his report that the admissions were more in number than in any previous year. "In the month of August (1900) the hospital became full and has practically continued so ever since, and a number of applications have had to be declined or postponed. This filling up of the house is the most important fact of our recent internal history." During the year five male and three female patients were discharged as recovered, or 8.5 per cent. of the average number resident.

The deaths during the year amounted to three—viz., two females and one male, or 3.17 per cent. of the average number resident. An epidemic of influenza prevailed during the opening weeks of 1900, but without any fatal results. The Commissioners in Lunacy state in their report that the wards are very bright and cheerful and are decorated in excellent taste, that the general bodily health of the patients is good, and that the case-books and other medical records are regularly and well kept. They are glad to hear that it is intended to purchase some adjoining land which might otherwise be built over and so become detrimental to the hospital. The Committee of Management record the purchase of 14 acres of land from Magdalen College adjoining the hospital grounds and known as "The Close" for the sum of £3000. The financial condition of the institution is stated to be satisfactory.

*Belfast District Asylum (Annual report for 1900).*—The average number of patients resident during the year was 877, and comprised 460 males and 417 females. The admissions during the year amounted to 379—viz., 198 males and 181 females. Of these 320 were first admissions. Dr. William Graham, the medical superintendent, states in his report that the admissions of the year are "the maximum of a series of admissions which since the opening of the asylum has been mounting up by leaps and bounds." By some it is considered that the inebriate houses do not remedy drunkenness "nor do our increasing asylums prevent insanity. We must begin at the beginning. .... If we could get only one generation free from the inherited taint [of insanity] the foundations of a new and purified society would be laid." Those with a predisposition to insanity should lead quiet lives and abstain from marrying and reproducing their kind. The increase of insanity occurs not only among the upper and middle classes, but also mainly in the ranks of the poorest and most uneducated of the people, and the bulk of it is due to neglect or violation of fundamental hygienic laws. "The remedy for crass ignorance is simply knowledge. .... Many cases of insanity are secondary to disordered bodily function. It is by the early rectification of these physical disorders that we may hope to maintain a sound mind in a healthy body." The number of cases discharged as cured during the year amounted to 81, or about 9 per cent. of the average number resident. The deaths during the year amounted to 71, or 8.1 per cent. as calculated on the same basis. Of the deaths five were due to bronchitis, six to cerebral softening, seven to epilepsy, seven to cardiac disease, eight to pulmonary phthisis, nine to exhaustion from mania and melancholia, 10 to general paralysis of the insane, and the rest to other causes. Plans have been accepted by the asylum's committee for the erection of two villas for female patients. The cost of construction will be less in proportion than that of the larger and more elaborately equipped buildings, while the cost of administration will not necessarily be higher. A better classification of patients will also be rendered possible. The Inspector of Lunatics in his report states that overcrowding of the asylum, especially on the female side, is very serious, and the necessity for relieving it has become pressing and urgent. "The new accommodation so urgently needed need not necessarily be of an expensive character and it would be better for the insane to be housed in wooden sheds in the pure air and greater freedom of the country than shut up in the worn-out buildings and city surroundings of the parent asylum." The medical records and case-books were found to be carefully written up and admirably kept, a fact which reflects credit on the medical staff.

### BRISTOL UNIVERSITY COLLEGE COLSTON SOCIETY.

—The annual dinner of this society will take place in the Lecture Hall of the College on Feb. 5th under the presidency of Sir F. Wills, Bart., M.P. The Lord Mayor of Bristol will attend and Mr. Haldane, K.C., M.P., will be the guest of the evening. The president-elect is the Bishop of Bristol.

### CAMBRIDGE MEDICAL GRADUATES' CLUB.—The

smoking concert of the Cambridge Medical Graduates' Club was held at St. James's Hall, London, on Nov. 21st. The concert was well attended by members of the club and their guests, and also by members of the Oxford Medical Graduates' Club as guests of the Cambridge Club. After a most successful concert the members separated at 11.30. P.M. 218 were present.

## Public Health and Poor Law.

### LOCAL GOVERNMENT BOARD.

#### REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

*On the General Sanitary Circumstances and Administration of the Borough of Weymouth and Melcombe Regis, and on the Recent Prevalence there of Scarletina*, by Dr. R. DEANE SWEETING.<sup>1</sup>—Weymouth was incorporated by Royal Charter in 1804, and was extended at the expense of Weymouth Rural District in 1895. Its population at this year's census was 19,785. The need for a quinquennial census is well illustrated in the case of Weymouth. Each year since 1891, when the total number of inhabitants was 13,866, an excessive allowance has been made for increase of population, and before this year's census figure was published the population of the borough was locally reckoned at about 28,000, not including visitors or military. Death-rates have been calculated on inflated figures year by year, and consequently have appeared unusually low and progressively diminishing. Dr. Sweeting deals first with the sanitary circumstances of the place. There are many unhealthy dwellings and courts in certain parts of the town, where walls are damp, lighting and paving are defective, and the buildings are much dilapidated. During 1900, out of 61 representations by the medical officer of health under the Housing of the Working-Classes Act, closing orders were obtained in only six cases and in only 18 instances were steps taken to repair the houses. No demolition of house-property was ordered although some of the dwellings are seemingly past repair. These facts "point to apathy, if not to something worse, on the part of the town council in dealing with this important matter." As regards new dwellings the surveyor finds by-laws difficult to enforce, as only nominal penalties have hitherto been exacted for disregard of their provisions. Builders appear frequently to neglect to give notice of their intention to build and of the completion of new dwellings. The water-supply, by a private company, is derived from springs in the upper greensand some three and a half miles from the town, and appears to be of good quality and sufficient in quantity. Sewerage has presented many difficulties in Weymouth owing to the flatness of the land on which the greater part of the town is built, and considerable expense has been incurred in providing the present system, by which sewage passes to two main intercepting sewers and thence to a storage-tank which is pumped out at ebb tide. Sewage thus pumped is at present discharged at the end of the Nothe Point breakwater, but the outfall sewer is shortly to be carried further out to sea. In wet weather the whole of the sewage is pumped directly into the harbour by an overflow pipe. House-drainage has been considerably improved of late, but in older property it is often faulty. Dr. Sweeting reports that he found many sink, waste, and rain-water pipes discharging directly into house-drains and these in turn directly into sewers. A large number, perhaps a third, of the dwellings have no flushing apparatus to their water-closets. Scavenging is performed by contractors, the corporation supplying the carts, but the work is not well done. Refuse is tipped just outside the borough in such a way as to occasion nuisance. By-laws relating to slaughter-houses date back to 1852, and these places are badly constructed and not properly supervised; common lodging-houses are not registered and by-laws regulating them are not enforced; and the condition of cowsheds leaves much to be desired. The recent prevalence of scarlet fever appears to have affected North Melcombe Regis, a better-class residential district, much more than other parts of the borough. From Jan. 1st, 1900, to March 11th, 1901, the total number of notified cases of this disease was 162 and these occurred in 110 houses. In 28 families more than one person had scarlet fever and in five instances as many as five people in the same household were attacked. Only three out of the 162 cases were fatal. School attendance does not appear to have played any considerable part in the dissemination of infection during this epidemic. The action taken by the medical officer of health in compelling isolation

in hospital was referred to in THE LANCET of Nov. 16th, p. 1368. Dr. Sweeting deals in detail with the allegations against the port sanitary authority's hospital at Wyke to which these cases were sent, and he considers the more serious charges of overcrowding, bad nursing, and bad management to be proved. He draws attention to the opportunities of spreading infection at this hospital and to the cost which the town council has incurred in connexion with these unsatisfactory "isolation" arrangements—a sum considerably over £1000. The report further deals in detail with the sanitary administration by the town council and their officers and concludes with a series of recommendations.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Shropshire County District.*—Dr. Charles Porter, in submitting his first annual report as county medical officer of health, states that the census population of Shropshire was 239,297, a figure which shows an increase of but 1 per cent. on that of the previous census. The birth-rate for 1900 was the lowest on record, and Dr. Porter calls attention to the fact that in the country as a whole the fall in the death-rate is not keeping pace with that in the birth-rate, a reflection of a sufficiently serious nature from a national standpoint. Fresh arrangements have been entered into between the Shropshire County Council and the University of Birmingham by means of which examinations for diphtheria, enteric fever, tuberculosis, plague, cholera, and anthrax, as also the bacteriological examinations of milk and water, are made. For this provision the county council pay the university a minimum annual fee of 50 guineas, each examination being made at two-thirds of the price scheduled in the university published list. Each medical man in the county is provided with a set of three outfits and when one outfit is sent to the laboratory another is forwarded to fill its place. The isolation accommodation in Shropshire is very indifferent, but we expect that Dr. Porter will soon have a better state of affairs to report. The shortcoming in question, and, indeed, others of a no less serious nature, are laid by Dr. Porter at the door of Shrewsbury, the county town. Here there is a small "emergency" hospital of six beds, but the cost of admittance is such as to deter even this building from being used. There is only one steam disinfecting apparatus in the county. The water-supply of many districts within the county is decidedly questionable, and in this matter again the county town is brought up for censure. Certainly Shrewsbury does not seem to be impressed with its responsibilities as regards sanitary measures. However, Dr. Porter has apparently in Shropshire generally almost a virgin soil to commence operations upon.

*Essex County District.*—Dr. J. C. Thresh, in conjunction with the issue of one of his recent notification returns, has caused a notice to be circulated relative to the steps to be taken should small-pox break out in one or another district of the county. The usual preventive and controlling measures are enjoined, and Dr. Thresh also advises that where no proper isolation hospital is available a hospital tent should be procured. Such a tent, with the furniture appertaining thereto, can, it is pointed out, be stored in a specially-arranged van and kept ready for instant use. The tent is utilised for the patient and the van as a sort of administrative block. With warm weather these tents should serve their purpose well, but there may be some little difficulty in adequately warming them in very cold weather.

*Stockport Urban District.*—The infant mortality in this town amounted in 1900 to more than one-fifth of the number of births registered—i.e., only 797 out of every 1000 born saw their first birthday. The infantile mortality rate for England and Wales as a whole was 154, that for the "33 great towns" 172, and that for the "67 other large towns" 166 per 1000 births in each instance. Intestinal diseases have been responsible for the Stockport figures and Dr. Meredith Young agrees with his predecessor, Dr. Charles Porter, in believing that the education of the public is the only remedy for this lamentable state of affairs. With the object of carrying such education into effect a female sanitary inspector has been appointed to assist mothers with advice in the preparation of food and generally in the rearing of infants. The teaching of elementary hygiene in the Stockport schools seems to be proceeding smoothly, and the head-masters of the public schools have cordially coöperated with the health authorities in the matter. Prizes have also been awarded by the sanitary committee.

<sup>1</sup> London: Eyre and Spottiswoode, East Harding-street; Edinburgh: Oliver and Boyd; Dublin: E. Ponsonby. Price 6d.

*The City of Manchester.*—The provision for the isolation of small-pox in connexion with Manchester is, Dr. J. Niven reports, inadequate, and the sanitary committee recently attempted to procure a site at Carrington Moss and to erect a hospital thereon at a total cost of some £60,000. The scheme, however, failed to meet with the approval of the Local Government Board, and a proposal to take the project to Parliament did not receive the support of the ratepayers. In dealing with the several channels by means of which scarlet fever may be spread Dr. Niven lays stress upon its propagation through excreta in contaminated soil, and he thinks that the seasonal curve of scarlet fever supports this thesis. The phenomena of "return" cases can, Dr. Niven claims to have established, be entirely done away with by means of a period of separation in convalescent wards for at least 10 days prior to discharge. Dr. Niven briefly discusses the views set forth by Dr. C. K. Millard as to the influence of isolation hospitals, and he (Dr. Niven) is inclined to conclude that, so far as infection at home is concerned, the results of isolation hospitals are disappointing. He, however, points out that in so far as infection outside the home is concerned non-removal to hospital is likely to result in the spread of infection in consequence of inefficient isolation or of premature return to school. Enteric fever was largely spread in Manchester during 1900 by means of cases of the disease which were unrecognised at the time, but which were detected subsequently by means of Widal's reaction. As Dr. Niven observes, there are many mild cases of the disease which are never brought under observation at all. In no less than 62 cases out of a total of 378 there was a history of direct personal infection. With regard to the influence of shell-fish in causation, it has to be recorded that the patients in three cases had consumed mussels taken from the estuary of the Conway. There were 60 cases of typhus fever brought to light in Manchester during 1900, and Dr. Niven points out that with the present depressed condition of trade there may be difficulty in keeping this disease under control. As regards phthisis, 1573 fresh cases were notified in 1900; of these, 587 were notified from union hospitals or by district medical officers, and 446 from hospitals and dispensaries not connected with the Poor-law. After February, 1900, private medical practitioners were invited to notify, and as a result 540 such notifications reached the medical officer of health before the end of the year. In connexion with the influence of houses occupied by consumptive persons it may be mentioned that certain persons in Manchester were possibly infected by living next door to already invaded houses. This association has already been noticed by Flick in Philadelphia and by Biggs in New York. Dr. Niven embodies in his annual volume the reports by Dr. Harold Coates as to his investigations in respect of the dust of infected houses. Dr. Coates's researches confirm those of Cornet, and accentuate the importance of the disinfection of the rooms of tuberculous patients both during life and after death. Doubtless, dried sputum as also the drops of moisture expelled from the mouths of phthisical persons during coughing are the two most potent causes of the spread of this disease, but it is difficult to determine the relative magnitude of each of these factors.

## VITAL STATISTICS.

## HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6471 births and 4677 deaths were registered during the week ending Nov. 23rd. The annual rate of mortality in these towns, which had been 19.7 and 19.4 per 1000 in the two preceding weeks, rose again to 21.3 per 1000 last week. In London the death-rate was equal to 22.3 per 1000, while it averaged 20.6 in the 32 large provincial towns. The lowest death-rates in these towns were 12.6 in Huddersfield, 12.9 in Halifax, and 14.7 in Croydon and in Derby; the highest rates were 24.7 in Burnley, 25.0 in Oldham, 25.4 in Salford, 28.2 in Wolverhampton, and 28.4 in Norwich. The 4677 deaths in these towns last week included 473 which were referred to the principal zymotic diseases, against 442 and 427 in the two preceding weeks; of these 473 deaths 143 resulted from measles, 82 from diphtheria, 61 from diarrhoeal diseases, 58 from "fever" (principally enteric), 57 from scarlet fever, 50 from whooping-cough, and 22 from small-pox. No death from any of these diseases occurred last week in Derby; in the other towns they caused the lowest death-rates in Plymouth, Bristol,

Preston, Bradford, and Gateshead, and the highest rates in West Ham, Norwich, Salford, and Blackburn. The greatest mortality from measles was recorded in Wolverhampton, Norwich, Manchester, Oldham, Blackburn, Huddersfield, and Sheffield; from scarlet fever in Cardiff, Oldham, and Sunderland; from whooping-cough in Wolverhampton, Leicester, and Newcastle; and from "fever" in Salford, Sheffield, and Sunderland. The 82 deaths from diphtheria included 37 in London, eight in West Ham, four in Leeds, three in Birmingham, three in Leicester, three in Salford, and three in Sheffield. Twenty-two fatal cases of small-pox occurred in London, but not one in any other of the 33 large towns. There were 396 cases of small-pox under treatment in the Metropolitan Asylums hospitals on Saturday, Nov. 23rd, against 284, 297, and 368 at the end of the three preceding weeks; 141 new cases were admitted during the week, against 169, 62, and 113 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 3331 and 3353 at the end of the two preceding weeks, had further declined to 3337 on Saturday last; 379 new cases were admitted during the week, against 425, 380, and 376 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 327, 445, and 477 in the three preceding weeks, further rose last week to 582, and were 176 above the corrected average number. The causes of 51, or 1.1 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Nottingham, Bradford, Sheffield, and 11 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Salford, Gateshead, and Newcastle.

## HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21.7 and 19.9 per 1000 in the two preceding weeks, rose again to 21.3 per 1000 during the week ending Nov. 23rd, and corresponded with the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 13.7 in Paisley and 18.6 in Edinburgh to 24.2 in Dundee and 25.2 in Perth. The 680 deaths in these towns included 30 which were referred to diarrhoea, 29 to measles, eight to "fever," six to scarlet fever, six to diphtheria, and six to whooping-cough. In all, 85 deaths resulted from these principal zymotic diseases last week, against 90 and 72 in the two preceding weeks. These 85 deaths were equal to an annual rate of 2.7 per 1000, which was 0.5 per 1000 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of diarrhoea, which had been 32, 23, and 22 in the three preceding weeks, rose again last week to 30, of which 14 occurred in Glasgow, five in Dundee, four in Aberdeen, and three in Leith. The deaths from measles, which had been 24 and 18 in the two preceding weeks, increased to 29 last week, and included 24 in Glasgow and four in Dundee. The fatal cases of "fever," which had been 16 and 12 in the three preceding weeks, further declined last week to eight, of which five were registered in Glasgow. The deaths from scarlet fever, which had increased from four to eight in the two preceding weeks, declined again to six last week, and included four in Glasgow. The fatal cases of diphtheria, which had been six and nine in the two preceding weeks, decreased last week to six, of which two occurred in Edinburgh. The deaths from whooping-cough, which had been five, 16, and three in the three preceding weeks, rose again to six last week and included five in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 133, 162, and 190 in the three preceding weeks, declined again last week to 177, and but were 21 in excess of the number in the corresponding period of last year. The causes of 25, or nearly 4 per cent., of the deaths in these eight towns last week were not certified.

## HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 22.7, 23.2, and 23.9 per 1000 in the three preceding weeks, declined again to 23.8 per 1000 during the week ending Nov. 23rd. During the past four weeks the death-rate has averaged 23.4 per 1000, the rates during the same period being 19.8 in London

and 17.7 in Edinburgh. The 171 deaths of persons belonging to Dublin registered during the week under notice were within one of the number in the preceding week, and included nine which were referred to the principal zymotic diseases, against 19, five, and six in the three preceding weeks; of these, four resulted from "fever," two from diphtheria, two from diarrhoea, and one from whooping-cough. These nine deaths were equal to an annual rate of 1.3 per 1000, the zymotic death-rates during the same period being 2.0 in London and 1.1 in Edinburgh. The deaths referred to "fever," which had been five, two, and none in the three preceding weeks, rose again last week to four. The two fatal cases of diphtheria showed a decline of one from the number in the preceding week. The two deaths from diarrhoea corresponded with the number in each of the two preceding weeks. The 171 deaths in Dublin last week included 28 of children under one year of age and 46 of persons aged upwards of 60 years; the deaths of infants showed a marked decline, while those of elderly persons slightly exceeded the number in the preceding week. Three inquest cases and three deaths from violence were registered, and 58, or more than one-third, of the deaths occurred in public institutions. The causes of 15, or nearly 9 per cent., of the deaths in Dublin last week were not certified.

## THE SERVICES.

### ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Staff Surgeon H. W. Macnamara to the *Albion*. Surgeons: E. Cox to the *Mars* and G. M. O. Richards to the *Wildfire*, additional.

Civil Practitioner W. McLorinan to be Surgeon and Agent at Cushendun and Cushendall.

### ROYAL ARMY MEDICAL CORPS.

Captain W. A. Ward is returning to South Africa as medical officer in charge of 7th Hussars, sailing from Southampton on Nov. 30th in the s.s. *Templemore*. Surgeon-Captain G. Melville, A.M.R., has assumed temporary medical charge of troops, station hospital, &c., at Glencorse, and Surgeon-Captain T. E. Stuart, A.M.R., has assumed temporary medical charge of troops, station hospital, &c., Perth. Major S. O. Stuart has embarked for South Africa.

### VOLUNTEER CORPS.

*Artillery*: 3rd Lancashire: Surgeon-Captain E. Haworth resigns his commission. 1st Midlothian: Surgeon-Lieutenant-Colonel P. A. Young resigns his commission, with permission to retain his rank and to wear the uniform of the corps on retirement. *Rifle*: 4th (Cambridge University) Volunteer Battalion the Suffolk Regiment: Surgeon-Captain L. E. Shore resigns his commission; Henry Buckley Roderick to be Surgeon-Lieutenant. 1st Volunteer Battalion the Highland Light Infantry: James Fulton Findlay to be Surgeon-Lieutenant.

### SOUTH AFRICAN WAR NOTES.

Surgeon-Lieutenant-Colonel C. R. Kilkelly, Grenadier Guards, principal medical officer of the Imperial Yeomanry Hospital at Elandsfontein, in his report respecting the patients in hospital, states that four officers and 104 non-commissioned officers and men remain, the total treated in that branch of the Imperial Yeomanry Hospitals up to Oct. 31st being 486 patients. Mr. J. G. Hamilton, the honorary civilian director of the Imperial Yeomanry Hospitals, having just returned from Africa, a committee meeting will be held during the second week in December, when he will make a report to the committee on the work done by the various branches of the Imperial Yeomanry Hospitals and the position of the Elandsfontein branch, which continues in full operation.

### SOUTH AFRICAN AFFAIRS.

We think that it will not be denied that under our system of Government there is a tendency to criticise and to decry our own methods and efforts in almost any given direction and to draw contrasts, which are often needlessly unfavourable to ourselves, between them and those of other countries. At least, it has been so in the present war. Things rectify

themselves, however, in time; they assume their relative position and proportions to one another and juster judgments are reached. After every allowance has been made for want of preparedness and for the blunders and mistakes which have been made at home and in South Africa it must be admitted that the old patience and doggedness of the race have undergone no change, that the military strength which the British empire has been able to put forth has had the effect of creating no little astonishment and envy on the part of experts abroad where conscription is the rule. Nor can anyone say that there has been any decadence in the fighting power of our soldiers, whose behaviour and humanity under exceptionally trying circumstances will certainly bear to be compared with those qualities in any other army in the world. We are glad to notice that these facts are asserting themselves, with the effect of strengthening public confidence. The news from the theatre of war, too, is quite as satisfactory as could be expected considering the exceptional and irregular conditions under which military operations are being carried on. The health of the troops is, on the whole, satisfactory, notwithstanding that, as might be confidently expected must be the case, there is still a certain amount of enteric fever present and diseases incidental to field service and camp life. A regular and steady supply of reinforcements is being sent out from this country to South Africa and, as we trust and believe, the sick and convalescent in hospitals as well as their healthy comrades outside them, despite their hard and fatiguing work in the field, may be reminded by the receipt of various tokens of the approaching Christmas that they are not forgotten by those at home.

### ROYAL NAVY LIST, DIARY, AND NAVAL HANDBOOK FOR 1892.

This is the fifth issue of an excellent diary for all members of the naval service, as well as for others interested in our first line of defence. The diary portion of the book is arranged so as to present one whole page to each day, while space is also apportioned for the entry of drills, &c. The usual calendars, with astronomical ephemeris for each month of 1902, is given, together with useful tables and notes. There are also several articles and notes of general interest, including the naval progress of the year with a comparative table of the battleships of the naval powers. The list of war medals and orders conferred upon officers of the Royal Navy and Royal Marines, together with the colours of the medal ribbons, will be found useful and interesting. Messrs. Witherby and Co., 326, High Holborn, are the publishers and the price of the Diary and Handbook is 3s. net.

### THE REORGANISATION OF THE ARMY MEDICAL SERVICES.

On the receipt of the report of Mr. Brodrick's War Office Committee in India it immediately received attention on the part of the lay and medical press of that country, with the result that the impressions derived from its perusal are unfavourable to the scheme which it sets forth. There are, of course, many matters about which the receipt of further information is awaited in view of clearing up existing doubts and misgivings; the chief points, however, which are taken up or adversely criticised in the Indian press are, speaking generally, those which have been commented upon in this country—such as the questions of promotion, the terms and rates of retirement generally, and of optional retirement at 20 years in particular, the proposed institution of a number of examination tests and the inadequacy of such tests for their intended purpose, doubts as to the appointment, constitution, and workability of an advisory board, the exact position and pay of medical officers serving in India, and the effect which the new rules in regard to the proposed increased rates of pay will have upon officers of the Indian Medical Service, and so forth. The report of the committee is still but a report, and there is ample time for Mr. Brodrick to give all these points every consideration which, we venture to think, he will wisely do if he desires his new scheme to succeed.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on Nov. 21st the M.B. degree was conferred on O. F. F. Grünbrum, Trinity; T. W. S. Paterson, Caius; and (with B.C.) J. H. P. Fraser, Jesus. Dr. L. Humphry has been appointed University Lecturer in Medicine in succession to Dr. MacAlister.

## Correspondence.

"Audi alteram partem."

THE ANNUAL MEETING OF FELLOWS  
AND MEMBERS OF THE ROYAL  
COLLEGE OF SURGEONS  
OF ENGLAND.

To the Editors of THE LANCET.

SIRS.—The consistent support which you give to the movement for re-establishing the rights of the Members of the Royal College of Surgeons of England deserves their most hearty thanks. Ours is an essentially practical profession, and if the Members do not come in large numbers to the annual meeting at the College, it is clearly because they are tired of assisting at a solemn farce. Resolutions are yearly passed almost unanimously, and as regularly the Council informs the mover and seconder that "it is unable to accede to their request," or some such formula. The fact is that the basis of these meetings is highly artificial; they are carefully deprived of all power and influence, and they only afford the Council an annual opportunity of snubbing those Members who take the trouble to attend them. The Council never brings forward any subject of interest to the College or the profession, but merely presents its printed report, as to which the President of the year says a few perfunctory words. It is well known that but for the resolutions formulated by the "Society of Members" there would have been no business before any of the meetings which have been held.

I do not advocate the abolition of these meetings, but I suggest that they be placed on a different footing. Let the Council itself bring forward matters on which it desires to hear the opinions of the Fellows and Members. Some such must occur every year. At present there is the difference with the General Medical Council over the recognition of scientific institutions. It is referred to in the report both last year and this, but when we bring forward motions bearing on the question we are asked to withdraw and told that the matter is *sub judice*. It would be unreasonable to expect the Council to regard resolutions passed at the meetings as binding, but let it undertake to treat them with respect and consideration, especially if repeated from year to year. Let it endeavour to encourage the attendance of Fellows and Members by advertising the meetings well and thoroughly, and let the attendance of the Council itself be an example to the rest of the corporation. Last year and this only seven members of Council out of 24 were present. But if the Members do not care to attend the meetings as at present conducted, many of them still take an interest in their College and do not abate one whit of their demand that they shall be represented on its Council. In proof of this I may point to the facts that the "Society of Members" has doubled its numbers during the current year, and that more than 2500 applications from Members have been received at the College during the last few months for copies of the annual report.

I am, Sirs, yours faithfully,

Nov. 26th, 1901.

W. G. DICKINSON.

## THE DANGERS OF A COMMON COLD.

To the Editors of THE LANCET.

SIRS.—Your correspondent Dr. Prosser White truly remarks that the question whether colds are produced by a chill or by one of the many manifestations of the growth of specific *materiam morbi* is one awaiting the patient investigations of the bacteriologist. But might not some effort be made to differentiate the various sorts of "cold" clinically and thus assist and guide the bacteriologist? At present the profession and the public have no definite ideas on the subject. Until some better understanding is arrived at as to the difference between an infectious and a non-infectious cold it would be rash to teach that a sufferer "is an immediate source of perilous infection."

It seems improbable that simple exposure to cold can produce a specific poison, although it may be so. There is the curious fact that nasal catarrh is almost unknown within the Arctic Circle, but this may be due to a direct action of continuous cold on the mucous membrane and not to the

absence of the usual microbes. It is very probable that there are at least two quite distinct "colds," the one due to exposure and the other to infection, but that as they have symptoms somewhat similar they are confounded by both medical men and the public. The simple cold may predispose to an attack of infectious cold and thus the confusion is intensified. If we could diagnose one kind from the other, then some effort might be made to isolate the subjects of the infectious kind: but what would Dr. Prosser White think if all his patients rejected him as "perilously infectious" because he had a slight nasal catarrh? I fancy distinctions something after the following manner might be drawn.

The simple cold (1) comes on immediately after exposure to cold or exhaustion, or more commonly both combined; (2) is progressive in intensity, but does not tend to spread; (3) produces very little constitutional disturbance; and (4) is followed by no debility.

The infective cold (1) comes on after attending a crowded assembly or is epidemic in a household; (2) suddenly attacks a single point and spreads therefrom; (3) causes considerable constitutional disturbance, rise of temperature, aching of limbs, &c.; and (4) is followed by more or less debility.

In influenza the constitutional symptoms come on suddenly, but the catarrh is only secondary. Until some trustworthy method of diagnosis is discovered I do not think we had better teach the ineffectiveness of the common cold, for the public is slow to learn, but slower to forget, and we may condemn generations of sufferers to a useless quarantine.

I am, Sirs, yours faithfully,

Hilfrcombe, Nov. 11th, 1901.

O. CLAYTON JONES.

## THE TEACHING OF MEDICAL PHYSICS.

To the Editors of THE LANCET.

SIRS.—It is to be hoped that the General Medical Council will not commit themselves to the retrograde step of consigning the teaching of physics, biology, and chemistry to non-medical schools. Referring to my own subject I may point out that there may be all the difference in the world between the elements of physics as taught even in the best schools and in medical colleges. In the former we shall have schoolboys exercised in dynamics and in arithmetical questions on falling bodies, with a little sound, light, heat, and electricity thrown in, while in the latter the student will be taught those branches of physics which will be of most value to him in his future professional career. Such a course should be essentially of an experimental and practical nature, comprising the elements of sound, light, heat, and electricity. To try to cram these along with a complete course in dynamics into three months is to attempt an impossible task. In Surgeons' Hall we study after a little elementary dynamics the laws which govern the flow and pressure of liquids in uniform and in dilated tubes (aneurysm, the pulse). In the subject of light particular attention is paid to refraction, spectrum analysis (the blood, chemical and heat rays), and polarisation; in heat to thermometers, hygrometry, and calorimetry; in electricity to static electricity, batteries, accumulators, galvanometers, Ohm's law, magnetism, and the induction coil, not omitting the Roentgen rays. But I am only touching the fringe of the subject. Every day sees some further advance in scientific medicine: the use of electricity in medicine and surgery is constantly extending; we have the Roentgen rays, Finzen rays, light baths, and high frequency currents, and yet instead of helping the student to get such a grounding in the physics of these subjects that he may be able to understand and apply them properly in his future practice, the General Medical Council are thinking of reducing the study of them to a vanishing point by relegating them to schools and schoolboys. A course of medical physics can only be satisfactorily given by a teacher who has had both a scientific and medical training.

I am, Sirs, yours faithfully,

DAWSON TURNER,

Lecturer on Physics at Surgeons' Hall.

Edinburgh, Nov. 20th, 1901.

## SCHOOL PUNISHMENTS.

To the Editors of THE LANCET.

SIRS.—I have been very interested in the correspondence which has lately appeared in THE LANCET with reference to the above subject. While there is much to commend many of the views which have been put forward I do not

think a sufficient case has been made out for the adoption of a special system or the abolition of any of the methods which have been discussed. At the present day we have become such victims to fashion that it permeates into our lives and affects our actions more than we care to admit. Religion itself is not free from its effects. In the legitimate branch of our own profession it exerts a baneful influence and on the illegitimate side the harm it does is appalling. Yesterday it was Count Mattei, to-day it is the violet leaves, and to-morrow who knows what it will be? We must be careful in considering the punishment of our young people not to allow ourselves to be swayed by such an influence.

In choosing methods of punishment I cannot help thinking that it would be a wise plan to endeavour as far as possible (if I may use a well-known phrase) "to make the punishment fit the crime." For instance, while, on the one hand, I should not approve of a form of punishment which kept a lad indoors and so deprived him of the necessary fresh air and physical exercise, on the other hand it appears to me that if a boy fails to learn his lesson the natural punishment is to keep him in after school hours while he does learn it. It is probable that instead of devoting the time he should have devoted to the preparation of his lesson he was playing about, perhaps out-of-doors, so that in the end you will not deprive him of his necessary exercise. Of course, in such a system it is essential that the master should sufficiently gauge the capacity of his pupil so that he may not be set a task beyond his ability. Corporal punishment should be reserved for really serious sins, such as untruthfulness, theft, immoral practices, &c., and should be administered with some degree of comparison to the offence. No one, I think, can defend the system of ear-boxing, pinching, pin-pricking, or roasting, and the old custom of slashing boys on the hands is equally to be condemned. It is far better for their bodies and more humiliating to their minds if the punishment is inflicted upon that portion of their body which nature appears to have specially designed for that purpose. The object of this punishment is to produce pain without damaging the soft parts, consequently it should never be performed with a fine cane, which is liable to cut the skin, nor should it be applied to the skin without any covering or in too rough or too extensive a manner. If the recipient is made to kneel down and a good thick cane be used half a dozen smart stripes could rarely do harm. Boys have a great idea of justice, and providing that this is exercised they will generally accept their punishment in a proper spirit and profit by it, but I should like in conclusion to put in a plea for the personal factor. Every boy is a study in himself, and if a master observes his pupils as he ought he will soon ascertain that a form of punishment which is most suitable to one boy is totally unsuited to another. While I should like to feel that all could be dispensed with I am sure that it would be most undesirable to fix upon any one method, and the wise master is he who makes use of them all in the cases to which they are applicable.

I am, Sirs, yours faithfully,

J. LIONEL STRETTON,  
Senior Surgeon to the Kidderminster Infirmary and  
Children's Hospital.

Nov. 26th, 1901.

## PAUPER LUNACY FEES.

To the Editors of THE LANCET.

SIRS,—I commenced practice in this town in May, 1880; my predecessors then had been in practice many years, probably some of them 40 years. I at that time accepted the proffered fee of £1 11s. 6d. for examining and certifying pauper lunatics. This I presumed was the usual fee, as I was not likely to be given a higher fee than my predecessors had been in the habit of accepting. This fee has been paid ever since until this year in the neighbourhood of this town. At a town distant about seven miles the fee has been one guinea. On August 2nd the following circular letter was forwarded to every magistrate:—

DEAR SIR,—I am directed to inform you that the guardians of this union have had under consideration the question of the fee usually allowed by the justices to medical practitioners for certifying as to the state of mind of an alleged lunatic, which fee the guardians have to pay; and on Saturday last they directed me to inform every magistrate that in their opinion the amount usually allowed—viz., £1 11s. 6d.—is too high for ordinary cases.

Yours faithfully,

—, Clerk.

You will observe, Sirs, that the fee of £1 11s. 6d. is in this letter admitted to be usual. Subsequently to the knowledge

of this circular letter the following was sent to the medical men practising in this union:—

DEAR SIR,—A resolution has been passed by the ——— Guardians to apply to the magistrates to reduce the fee payable to medical men for certifying pauper lunatics from £1 11s. 6d. to £1 1s. May I add your name to the list of medical men practising in the union who are determined to resist this reduction and refuse to certify for less than a fee of £1 11s. 6d.? If so will you sign and return this card?

The replies were 20 in favour, four doubtful, and one against. On Oct. 31st, at a meeting of medical men, the following motion was passed unanimously:—

That we, the medical men practising in the ——— Union, do in future refuse to take a less fee for certifying pauper lunatics than £1 11s. 6d. (one guinea and a half) and that a copy of this resolution be forwarded to the Editors of the *British Medical Journal* and *THE LANCET*.

What we wish to elicit is your opinion on our case with, perhaps, comments on the action of the one practitioner who refused to join us. I regret that only nine attended the meeting, but the others were unfortunately prevented. May I add that the magistrates who so far have allowed the guinea fee only are likewise guardians. On the other hand, when the circular in question was laid before the bench of magistrates then sitting it was unanimously decided that the usual fee was not too high and a letter from the chairman of the bench to a medical man on this question is as follows:—

Justice's Clerk's Office, Town-hall, ———, Nov. 5th, 1901.

Re Examination of Lunatic.

DEAR SIR,—The chairman ——— has handed me your letter to him of the 3rd inst. touching this matter and has directed me to write you in reply thereto. While the magistrates consider the amount of allowance to the medical man is a matter in the discretion of the justice conducting the examination, after consideration of the circumstances peculiar to each examination they think the amount, £1 11s. 6d., seeing that the justice has to rely almost implicitly on the medical certificate, is not an excessive fee, more so as the medical man is frequently called upon to exercise minute inquiry and much caution before giving his certificate, which inquiry and caution it is desirous to encourage.

Yours obediently,  
—, Clerk.

I wish to add it is feared that the abstention of the one medical man may seriously endanger the success of the combination; the reason he gives for doing so is that he has entered into an "agreement" with a relieving officer to accept the fee of one guinea.

I am, Sirs, yours faithfully,

Nov. 15th, 1901.

R. W.

\*.\* We understand the matter to be governed by the Lunacy Act of 1890, Section 285, Sub-section (1). The fee is to be "such reasonable remuneration as the justice thinks proper." We have no hesitation in saying that the fee of £1 11s. 6d. is not unreasonably high, and that the letter of the clerk to the justices states precisely and with admirable exactness the reasons why it is not excessive. The guardians may have the right to lay before the magistrates any objections which they have to paying the amount usually allowed in the district, but the matter is absolutely in the magistrates' discretion. We must point out also that although it is incumbent on the guardians to consider the public purse it is primarily their duty to consider the public welfare, or rather the welfare of those persons for whom the medical examination to be remunerated is to be provided. The "minute inquiry and much caution" to which the clerk to the magistrates refers is a necessity in such cases and the fee must be such that self-respecting medical practitioners will accept it. The certificates in question should not be given after hasty examination or accepted from a practitioner willing to undersell his colleagues.—ED. L.

## THE FORTHCOMING ELECTION OF DIRECT REPRESENTATIVES.

To the Editors of THE LANCET.

SIRS,—With regard to the position of parochial medical officers in Scotland, for 30 years as a parish medical officer and since I have ceased to hold such a post I have in season and out of season advocated that my late colleagues should have the right of appeal against dismissal to the Scottish

Local Government Board. I mean to support the agitation in favour of this and other points of their programme of reforms. But such questions cannot be dealt with by the General Medical Council as at present constituted. It is altogether beyond the limit of their duties, which are very strictly defined by Acts of Parliament.

I am, Sirs, yours faithfully,

WILLIAM BRUCE,  
Direct Representative for Scotland in the  
General Medical Council.

The Castle, Dingwall, Nov. 24th, 1901.

*To the Editors of THE LANCET.*

SIRS,—In my capacity of candidate for the direct representation of the medical practitioners of Scotland on the General Medical Council I have received a letter from Dr. J. F. D. Macara of Durness, Sutherlandshire, inclosing copy of a petition presented to Parliament last session by the Poor-law medical officers of parishes in the Highlands and Islands of Scotland.

In reply I beg to state: (1) that I am strongly of opinion that such a fixity of tenure of office should be afforded to Poor-law medical officers in Scotland by the right of appeal to the Local Government Board of Scotland as is already enjoyed by Poor-law medical officers in England and Ireland; (2) that I am in entire sympathy with all the other points referred to in the petition; and (3) that I would endeavour to support these reforms in any practical way possible.

I am, Sirs, yours faithfully,

CHARLES E. ROBERTSON, M.D. Glasg.

Glasgow, Nov. 25th, 1901.

*To the Editors of THE LANCET.*

SIRS,—As a way out of the *questio vocata* about midwives I suggest that we should not have "registered midwives," thinking that qualified ones should be on an official "list of certified midwives." Parliament and the public will not understand or tolerate the term "obstetric or midwifery nurses," but will insist on employing "midwives"; there is much in a name. Our profession should guide (it cannot drive) our legislators. If we do not support the necessities of the public, which needs control over ignorant nurses, we shall find our aspirations condemned. Entrance to our profession, it seems to me, should be limited to tri-portal—London, Edinburgh, and Dublin; a uni-portal system would not be workable, as putting heavy expenses on Scotch and Irish students, not to mention opposition by their examiners.

I am, Sirs, yours faithfully,

STANLEY L. HAYNES, M.D. Edin.

Malvern, Nov. 25th, 1901.

## THE ETHICS OF A PUBLIC VACCINATOR.

*To the Editors of THE LANCET.*

SIRS,—I desire to associate myself with the protest that Dr. W. H. Cheetham has made in THE LANCET of Nov. 23rd, p. 1445, against the recent action of the Association of Public Vaccinators. It was with the greatest regret that I read the communication which the secretary addressed to the press and which appeared to me to savour of scarcely veiled advertisement.

I am, Sirs, yours faithfully,

THOMAS F. RAVEN,  
Public Vaccinator.

Nov. 25th, 1901.

## IMPRESSIONS ABOUT CHLOROFORM AND ETHER.

*To the Editors of THE LANCET.*

SIRS,—I have read with much interest the paper of Sir William Mitchell Banks in THE LANCET of Nov. 16th. I, too, was a dresser of Professor Syme at the time he mentions and also intimately associated with Sir James Simpson. With regard to the immunity from death under the administration of chloroform in midwifery practice no doubt Sir W. M. Banks is correct in his suggestions that it depends much upon the facts of the patients being at the best and most vigorous period of life, and that they are usually placed on the left side during the time it is given so that the tongue cannot fall backwards. There is another factor of some moment in the calculation in addition to the circumstance that deep anaesthesia is not so often required—namely, the uterine contractions; these produce intermittent pain which

rouses the patient and causes a marked reflex influence. The cause of danger in midwifery practice in the use of chloroform is when this contraction is absent—either in operative cases where the anaesthesia is profound, or in atony of the uterus where contraction does not exist. It is in these cases that hæmorrhage is apt to occur and where chloroform is often reputed to be the cause. No doubt under such conditions it becomes more dangerous. Yet in a very large practice I have never seen any death from its use, or more than temporary risk when given with due precaution. If Simpson's few and simple rules were widely known and acted upon the confidence in the administration of chloroform in midwifery practice would be firm and stable; no—or a minimum of—apprehension would exist. One of these, Sir W. M. Banks wisely makes a point of—namely, quietness around the patient during the administration. One more element is important in cause and effect—patients in midwifery practice look forward hopefully to relief, and ask, even clamour, for chloroform; there is none of the dread and fear which are often associated with surgical operations—a state of mind fostered and excited by reports in the lay press of such lamentably frequent occurrence.

I am, Sirs, yours faithfully,

Birmingham, Nov. 20th, 1901.

EDWARD MALINS.

*To the Editors of THE LANCET.*

SIRS,—In his paper on the above subject in THE LANCET of Nov. 16th, p. 1323, Sir W. M. Banks refers to dry friction of the lips and face as a method of stimulation and makes the following extraordinary statement: "The 'dodge' is so simple and so devoid of all scientific parade that I do not suppose any high-class anaesthetist could be got to use it." It is not very clear why Sir W. M. Banks should suppose that expert anaesthetists reject what is useful merely because it happens to be simple; as a matter of fact, the little manoeuvre in question is habitually used by anaesthetists, and, in London at any rate, is preached as well as practised by them. If Sir W. M. Banks will refer to the latest edition of Dr. F. W. Hewitt's work on "Anaesthetics and their Administration" he will find his "dry shave" frequently alluded to and recommended as a valuable respiratory stimulant.

I am, Sirs, yours faithfully,

J. HENRY CHALDEBOTT.

Welbeck-street, Cavendish-square, W., Nov. 27th, 1901.

## THE ENGLISH LANGUAGE.

*To the Editors of THE LANCET.*

SIRS,—I was pleased to learn from a footnote to a letter entitled, "A Question of Spelling" in THE LANCET of Nov. 9th, p. 1298, that it is your desire to encourage the use of good English among your contributors and correspondents. I do not suppose that we are, as a profession, less intimate than others with our mother tongue or have greater need of instruction in the art of writing, but I number among my acquaintances several medical men who seem to find the pen a much less facile instrument than the knife, and give expression to their thoughts in language which is always more or less crude and clumsy, and is sometimes scarcely intelligible. Not very long ago I saw in the possession of a nurse a testimonial written by one of these gentlemen, in which she was described as "above the average in absolute trustworthiness." The same gentleman, a surgeon of some local repute, invariably speaks of the "gritty" instead of the "gristly" feeling of a scirrhous cancer; to him it is much easier to remove such a tumour than to describe it in words accurately conveying his meaning.

You rightly call attention to that barbarism "try and," but you make no reference to an error much more grave, much more common, and found even among professional writers, in whom it is quite unpardonable: I mean the use of "either" for "each." In the "Manual for the Medical Staff Corps," in the instructions for moving helpless patients, there occurs the following sentence: "An orderly shall take up a position on either side of the bed." I read that sentence literally, and concluded, although I thought it an unwise economy of labour, that an orderly—one orderly—would place himself at that side of the bed from which he could the more easily and conveniently handle his patient, but on proceeding I was surprised to discover that two orderlies were employed, one on each side. The author might have avoided ambiguity

by the use of correct English. In the same book a misplaced comma so alters the meaning of a sentence that, while undergoing an examination as surgeon of volunteers, I felt constrained to call my examiner's attention to the mistake. He, however, failed to see anything wrong; a comma here or there was of no importance.

Another error, which is becoming daily more frequent, is the combined use of "ago" and "since." Quite recently, in one of our monthly magazines, a well-known London writer and preacher introduced an article with the words: "It is now some time ago since." I will not vouch for the verbal accuracy of my quotation, but it is sufficient to show the mistake to which I refer.

I am, Sirs, yours faithfully,

Gourock, Nov. 15th, 1901.

A. LEITCH.

## THE AFTER-COMING HEAD; PREVENTION OF ASPHYXIA.

To the Editors of THE LANCET.

SIRS.—With your permission I would like to thank Mr. George W. Ord for his letter in THE LANCET of Nov. 23rd, 1901, p. 1449, and at the same time to reply shortly to some of his remarks and criticisms. First of all I wish to point out to him that my communication was essentially, as its title implied, a historical note, and I did not discuss therefore in any detail the methods of treating cases of delay of the after-coming head; had I done so he would no doubt have understood much more clearly what my "precepts" actually are with regard to these cases. Mr. Ord objects to my saying that "the passage of a catheter or special tube into the child's mouth when the head is lying high up in the pelvic cavity is only likely to lead to a waste of valuable time," because, as he says, "it would be utterly unnecessary inasmuch as the circulation of the cord would not be in any way obstructed." With this last statement I entirely disagree. The danger of pressure on the cord in breech presentations begins when the after-coming head is passing into the pelvic brim. At this stage of labour the child's mouth, especially in the most dangerous class of cases where the arms and head are extended, is at or even above the level of the brim of the pelvis, or at a distance measured along the posterior vaginal wall of some six to seven inches from the vulva. It is the general custom amongst writers on obstetrics to use the terms "high up" or "low down" in the pelvic cavity to signify the relation of the child's head to the inlet or outlet of the pelvis, and this is the sense in which I used the phrase.

In many cases in which the danger to the child's life is at its maximum the pressure on the cord begins owing to extension of the arms before the head is able to enter the brim of the pelvis at all. Under these conditions the child's mouth is often at even a greater distance than from six to seven inches from the vulva and can only be reached with considerable difficulty. In all such cases the attempt to pass a catheter into the child's mouth will undoubtedly, as I have said, lead to a waste of very valuable time.

Mr. Ord next takes exception to my statement that "when the head is sufficiently low down in the pelvis to admit of air reaching the mouth if the perineum be retracted its immediate extraction should be a matter of little difficulty," and asks how do I "account for the high mortality of breech presentations if this assertion be true." The answer is a very simple one: these are not the cases which cause the high mortality. It is the cases where the head is arrested high up in the pelvis or even above the pelvic brim that are so fatal to the children. The danger to the child's life in a properly managed breech presentation where the head is arrested at the outlet of the pelvis mainly by the resistance of the soft parts is comparatively small; it is somewhat greater when the head is arrested in the cavity of the pelvis, and it is very much greater when the head is arrested at or above the pelvic brim. The introduction of a catheter or tube into the child's mouth is, therefore, most impracticable in the most dangerous class of cases. I am quite aware of the fact "that it is possible for the mouth to be well within reach of the finger and yet for the occipito-frontal diameter of the child's head to be fixed in one of the oblique diameters of the pelvis," if the head is low down, but this is by no means the case when the head is arrested high up, and Mr. Ord's remark, therefore, only applies to cases in which the head is arrested near the pelvic outlet.

He apparently considers the application of forceps to the after-coming head a somewhat difficult operation. I can only say that in my experience it has never presented any special difficulty. I quite agree with Mr. Ord when he calls traction on the jaw "a most iniquitous proceeding" and "meddlesome midwifery." I must point out, however, that I did not recommend jaw traction alone, do not practise it, and always take special care to warn students of its dangers. What I did recommend was the well-known method which I shortly termed "combined shoulder and jaw traction"—a very different procedure. I must apologise to Mr. Ord for not stating more clearly what I meant. I foolishly thought that anyone sufficiently interested in the subject to read my paper would at once recognise the method alluded to. I see, however, that I was wrong. There are, as no doubt Mr. Ord is aware, many ways of assisting the delivery of the after-coming head. The best and most widely practised of these are known as the Mauriceau-Smellie-Veit method, and the Wigand-A. Martin method respectively. In the first, commonly called combined shoulder and jaw traction, the finger in the child's mouth is used to control the degree of flexion or extension of the head according to the requirements of the case and the traction is made by the fingers of the other hand on the child's shoulders, or if further help is necessary by an assistant pulling on the child's legs. In the Wigand-A. Martin method, especially applicable to cases where the head is at or above the pelvic brim, the finger in the child's mouth is used for the same purpose, but the head is made to enter or pass through the pelvis by pressure applied to it through the abdomen. I am not aware of the existence of any recognised method in which jaw traction alone is recommended, although, no doubt, it is often improperly employed in these cases.

Mr. Ord must excuse me if I protest strongly against his assuming that I mean one thing when I say another, or that I employ and recommend a mode of treatment which he no doubt very rightly terms "an iniquitous proceeding" and "meddlesome midwifery" when I do nothing of the sort. I quite admit that the problem is "to bring a living child into the world with the least possible amount of damage to it or the mother," but in many cases this problem can only be efficiently solved by delivering the child as rapidly as possible even at the risk of some danger to the mother. I shall be very glad to avail myself in suitable cases of the method recommended by Mr. Ord when it can be shown that its use has brought about that upheaval of statistics of mortality in breech presentations which he anticipates. Meanwhile I am quite content to allow "the waste of valuable time to exist only in my imagination." I shall certainly never waste it in actual practice in the employment of a method which I think of very little value in preference to the use of other methods which a fairly extensive experience of breech presentations has shown me to be both valuable and efficient.

I am, Sirs, yours faithfully,

Nov. 25th, 1901.

GEORGE F. BLACKER.

To the Editors of THE LANCET.

SIRS.—I have read Dr. Blacker's "Historical Note" on "The Prevention of Asphyxia when the Birth of the After-coming Head is Delayed" with a great deal of interest, as I had no idea that the treatment was so ancient. In a footnote in Ramsbotham's "System of Obstetrics" it is stated: "Meigs ('Treatise on Obstetrics,' p. 354) instructs that we should endeavour to preserve the child from suffocation by passing two fingers upwards until they reach the two maxillary bones and cover the nose; by doing this," he says, "the backs of the fingers pressing the perineum backwards serve to keep an open communication with the air and the child can breathe very well. I have kept," he continues, "a child alive in this way, breathing and sometimes crying, for 20 or 25 minutes before the birth of the head." Although Dr. Ramsbotham had more faith in speedy extraction than in keeping an "open communication" between the child's lungs and the external atmosphere, yet I think this practical suggestion of Dr. Meigs is one which should never be lost sight of by those who are engaged in obstetric practice.

I am, Sirs, yours faithfully,

C. H. L. JOHNSTON, M.D., L.R.C.S. & L.M. Edin.

St. John, New Brunswick, Nov. 2nd, 1901.

## MEDICAL MEN AND MIDWIVES' CASES.

*To the Editors of THE LANCET.*

SIRS,—As this is a subject which particularly affects general practitioners I hope you will allow me to make a few remarks on the very extreme views set forth by various gentlemen at pp. 1446 and 1447 of your last issue. During a period of 25 years devoted to general practice my almost invariable reply to casual midwifery calls has been an expression of regret that my regular engagements prevented me from attending such cases, as absence at one of them might make me unable to fulfil my obligations to those who had both moral and legal claims on me. In adopting this course I have also been influenced by the belief that septic infection occurs with unusual frequency in these chance cases, and I do not think it fair to expose regular patients to that increased danger. It would appear to me that gentlemen who are so ready to attend casual midwifery must either have very little other work, or must be placed in such a position that they are seldom called upon to carry into practice the principles they profess.

I am, Sirs, yours faithfully,

HENRY GEO. DIXON.

Canonbury-square, N., Nov. 25th, 1901.

## DEGREES FOR LONDON MEDICAL STUDENTS.

*To the Editors of THE LANCET.*

SIRS,—I beg to thank you for the sympathetic remarks contained in the leading article on "Medical Students and the London Schools" in THE LANCET of Nov. 23rd, p. 1425. If it was the universal opinion of all the leading physicians and surgeons in the capital of this empire that London students were under grave disabilities in 1886, surely the decision of the Crown was come to under some misconception of facts. Further, if disabilities existed then they are accentuated in the year 1901, the result being that the professional value of the College pass diplomas is approaching the vanishing point owing to the ever-increasing number of provincial universities. I submit that London with its 5,000,000 inhabitants, equalling that of Scotland with its four universities, should have at least one pass degree in medicine. I would point out that diplomates educated in Birmingham are admitted to the final examinations of the Birmingham University. Surely the Crown, being the "fountain of justice," would be only too ready to reconsider its decision of 1886 and give a verdict in favour of the students of its great capital more in keeping with the overwhelming evidence of the justice of our plea of being equitably dealt with.—I am, Sirs, yours faithfully,

FREDERICK W. COLLINGWOOD.

Wimpole-street, W., Nov. 21st, 1901.

## THE OVERLOADING OF HORSES.

*To the Editors of THE LANCET.*

SIRS,—If you have space to spare I should like to supplement your humane remarks on this subject by calling attention to the sufferings of horses engaged in works where deep excavations are made, such as sewage, railway, and foundation works. The horses employed in removing the soil are first jagged by the bit in backing and then strained to their utmost in dragging heavy loads up a steep gradient of soft or slippery material. It would be well if inspectors of the Society for the Prevention of Cruelty to Animals were to visit the kind of works indicated.

I am, Sirs, yours faithfully,

Weymouth-street, W., Nov. 22nd, 1901. CHAS. W. CHAPMAN.

THE PHARMACEUTICAL SOCIETY:  
GENERAL MEDICAL COUNCIL  
ELECTION.*To the Editors of THE LANCET.*

SIRS,—Our attention has been directed to Dr. Robertson's address published in your issue of 16th inst. The suggestion that the Pharmaceutical Society only prosecute doctors and not chemists is unjustified. We presume that Dr. Robertson

had in mind the recent prosecution of a doctor for an offence against Section 17 of the Pharmacy Act of 1878. It is true that under this section of the Statute no chemist has yet been prosecuted in Scotland, but it is important to note that the prosecution against the doctor in question is the *first* directed in Scotland against a medical practitioner. Chemists, being specially trained in the selling of scheduled poisons, comply with the letter of the Statute. Moreover, as the chemists are all day engaged at their shops personally supervising their business, offences against Section 17 of the Statute within chemists' premises are practically unknown and not likely to occur. In doctors' shops, however, our experience leads us to say that the precautions attendant upon the sales of poison provided by Section 17 of the Pharmacy Act are not so carefully observed. This is caused, no doubt, by the facts: (1) that so many unqualified dispensers are employed by medical practitioners to conduct their shops; (2) the medical practitioners do not give their entire time and attention to the conduct of their shops as chemists do; and (3) doctors owning shops as a rule prefer that their names should not be on the label of articles sold in their shops, and their unqualified dispensers have neither the proper experience nor training to enable them to know what the provisions of the Statute demand. In this connexion it is of importance to note that the requirements of the Pharmacy Statutes and the conditions to be observed in retailing or dispensing scheduled poisons form no part of the curriculum for the medical practitioners' qualification, whereas they constitute one of the most important subjects of the chemists' qualifying examination.

We are, Sirs, yours faithfully,

P. MORISON AND SON,

Solicitors in Scotland to the Pharmaceutical  
Society of Great Britain.

4, Bank-street, Edinburgh, Nov. 22nd, 1901.

## RASH AFTER TONSILLOTOMY.

*To the Editors of THE LANCET.*

SIRS,—As the appearance of a non-specific rash following operation for removal of tonsils and adenoids is somewhat unusual, although a number of instances have been recorded, the following case may be of interest.

I recently removed adenoid growths and enlarged tonsils from a boy, eight years old. Two days later the patient's chest, abdomen, back, and limbs were covered with a well-marked papular eruption. The face, hands, and feet were not affected. The rash caused no irritation and there was no rise of temperature or other constitutional disturbance. The eruption disappeared entirely in a couple of days and was not followed by any desquamation.

I am, Sirs, yours faithfully,

H. W. HENSHAW.

Kew.

\* \* \* The value of our correspondent's communication would have been much enhanced if a few additional particulars had been furnished. Although the rash appeared after the removal of some adenoids and enlarged tonsils, yet we are hardly justified in ascribing it to the operation unless we are able to exclude other possible causes. For instance, the following questions might reasonably be asked:—Were any drugs administered? What anæsthetic was given? Had any change been made in the diet?—ED. L.

THE DIRECTION OF HAIR ON THE  
HUMAN ARM.*To the Editors of THE LANCET.*

SIRS,—Many practitioners are engaged at present in the somewhat wearisome process of revaccination, and I would suggest an interesting matter for study in connexion with the numerous hairy arms met with among young adults which may somewhat enliven the work. With the naked eye or a lens it is easy to trace the hair-streams which are found at and about the insertion of the deltoid, a region which must at the present time be very familiar to most of us, and it must be admitted that the course taken by these hair-streams is singular and suggestive. It is hardly possible to suppose a simian ancestor of man from whom he can have inherited that singular slope of hair which is found on the upper arm of the young adult and which may easily be

traced with a lens in the infant. One is led, then, to speculate as to the cause or causes which can have produced the phenomena present, on that hypothesis, which is the only one allowed by current science, that man is the child of the monkey. Starting from that basis one can hardly take any other than a Lamarckian view as to the reason for the direction of hair, and the most obvious reason, indeed, the only one that I can see, for this would appear to be that man lies on his side during sleep for about a third of his natural existence, with his head and shoulders more or less supported by a pillow or its equivalent. A very slight consideration of the mechanics of this attitude shows a force acting for a third part of man's life which is exactly calculated to produce the direction of the hair-streams which is found to exist. These are very much as follows. On the distal half of the upper arm the hair-streams follow a simple and natural course, passing from the level of the insertion of the deltoid to the elbow very much in the long axis of the limb on all the surfaces. But on the proximal half a most unexpected change is present, so that the hair-streams rather sharply diverge from those of the distal half, and on the external aspect pass at first at right angles to the long axis and then rapidly curve towards the shoulder-joint until their direction becomes almost, and sometimes quite, a complete reversal of that found on the distal half. If one traces the streams of the external surface towards the axilla one finds them to be a continuation of those which emerge from the posterior border of the axilla. At the upper angle of the axillary fold the hair-streams also are found to pass almost directly towards the shoulder. It is only necessary to study the corresponding surfaces in a few different forms of apes and monkeys to see at once the striking differences between them and man in this respect.

I have directed attention to this limited field of observation as one open to the inspection of all and in numerous cases, and as one much under the influences of habit and so-called Lamarckian factors, seeing that phenomena so trifling are removed from the jurisdiction of any kind of selection or neo-Darwinian factors by the mere statement of the facts. This is only one of the numerous instances in the distribution of hair in man and the lower animals which point to "use-inheritance" being certainly possible and probably frequent. However intrinsically unimportant it may be considered, it comes under the sound principle that all the phenomena of nature are worthy of investigation and may be capable of interpretation.

I am, Sirs, yours faithfully,

Blackheath, Nov. 5th, 1901.

WALTER KIDD.

## THE CINDERELLA OF THE PUBLIC SERVICES.

To the Editors of THE LANCET.

SIRS.—The worst paid and hardest worked of the public services is the Poor-law medical service. No one cognisant of the facts will dispute that statement. And one of the worst-paid portions of that service—if not the worst paid—when the services required of it are taken into consideration, is the medical staff of the London Poor-law infirmaries. To take the position of the medical superintendent first. He must be a sound surgeon, for nowadays all operations, major and minor, are done within the walls of the infirmary; he must be, it goes without saying, a good physician; he must know the details of infirmary administration and of the Poor-law thoroughly; in many cases he must be an expert on lunacy matters; he must have a sound knowledge of hygiene and be an expert in the recognition of the infectious diseases; he has to be acquainted more or less with all the special branches of medicine—obstetrics, gynaecology, laryngology, ophthalmology, &c.; and lastly, he must be able to lecture to the nursing staff on physiology, anatomy, and nursing. Withal he must be a man of infinite tact, patience, and industry, with an iron constitution, or his administration will be a sad failure. That one man should possess all these qualifications is obviously impossible, and the most striking fact about the service is the success with which so many of its members carry on their multifarious duties, for practically, even as compared with the scandals, so-called or otherwise, of voluntary hospitals, there are no infirmary scandals. And it is knowledge of this fact which in many cases induces boards of guardians to sweat their medical officers in

a way they would not be allowed to sweat the members of a trade-union. The worst of the London boards in this respect are Shoreditch, Mile End, Fulham, and Camberwell. The two former pay their medical superintendents £300 and the two latter £325 per annum. The highest salary paid to any medical superintendent in London is £500. To realise how unjust are these salaries one has only to compare them with the salaries paid by the Metropolitan Asylums Board and the London County Council for less arduous and responsible work. Medical superintendents of the Metropolitan Asylums Board fever hospitals are paid £400, rising to £700, per annum; those of imbecile asylums are paid £600, rising to £800. The medical superintendents of London County Council asylums are paid £1000. The emoluments of all these officers are, with few exceptions, practically the same—viz., unfurnished house, coals, gas, and washing.

When we come to the position of the assistant medical superintendent the state of affairs is even worse. His salary is usually £100 or £120, rising by £10 annual increments to £130 or £150, and his prospects are none, for boards of guardians usually prefer to appoint outside men to the post of medical superintendent. They prefer a man with one year's experience in a Metropolitan Asylums Board hospital to a man with five years' experience as assistant medical superintendent to a London infirmary. Hence the man who likes the administrative work of a public hospital had much better enter one of the fever hospitals. He will be paid at the rate of £160, rising to £200, and will stand a much better chance of promotion either in the fever hospitals themselves or in the Poor-law infirmaries. The prospects of the junior medical officer are not worth discussing. These posts would never be held by a sane man except for the valuable experience which the holder gains.

There is one point it would pay boards of guardians to ponder over very carefully. A man in the position of medical superintendent of a London infirmary has innumerable opportunities of saving his board thousands of pounds in the course of a year without any detriment, or rather with advantage, to the infirmary. Does it strike the ordinary man as likely that the man who knows that his work is being exploited at a sum far below its market value, is going to take the trouble to safeguard the interests of the men who sweat him? This, of course, is a very immoral attitude, but it is undoubtedly the attitude of the ordinary intelligent citizen. It is a fact recognised by all intelligent, shrewd, and business-like owners of successful industrial institutions. Their motto is, "Pay the highest price and get the best man possible and you will secure the most economical administration."

Now, is there any remedy for this state of affairs? Short of inducing the Local Government Board to fix minimal salaries for the medical officers there is only one. Let the medical profession boycott the London infirmary medical service. Let the example shown in respect of the Army Medical Service be followed with regard to the indoor appointments of the Poor-law medical service—a service the pay, prospects, and status of which are even lower than those of the Army Medical Service used to be. If this is done boards of guardians will soon be forced to fall into line with other public bodies and will be obliged to pay reasonable salaries to their medical officers. I would propose as minimal salaries for London £500, rising by annual increments of £50 to £700, for medical superintendents; £150, rising by annual increments of £25 to £250, for assistant medical superintendents; and £120 for the junior medical officer. Finally, all higher appointments, including the Local Government Board inspectorships, should be made by promotion in the service.

I am, Sirs, yours faithfully,

Nov. 20th, 1901.

AN INFIRMARY MEDICAL OFFICER.

## TIPPING THE NURSE.

To the Editors of THE LANCET.

SIRS.—The question at present uppermost in the medical world seems to be that connected with midwives; it certainly is one which requires very discreet treatment and consideration, but may I call your attention to a very much worse evil, and that is the practice of certain medical men (unfortunately for the profession far too numerous) of paying sums varying from 1s. to half the confinement fee or

more to the nurses in attendance who, to use their own words, make their living from "following the doctors."

General practitioners owe their practice to a great extent to confinements, since attendance at these times generally entails future attendance on the family, hence unscrupulous medical men make it a practice to tip the nurse in attendance handsomely in the hope (and more often there is an agreement on the subject) that she will recommend them to other people; further than this, it is by no means uncommon for the nurses to have a "supply" of the medical man's professional cards to distribute amongst her acquaintances (the General Medical Council may shortly have to issue judgment on one of these latter cases), and it naturally follows that so long as she can make a living out of these tips she will adhere strictly to her instructions not to let anyone else know.

A few weeks ago I personally suffered owing to a nurse being in attendance whom I did not tip and who is "run" by a medical man who is now in attendance in the house. Trusting you will see fit to insert this letter, to which my name obviously cannot be attached,

I am, Sirs, yours faithfully,

A MEDICAL PRACTITIONER.

Nov. 19th, 1901.

\* \* We do not think that the practice of tipping the nurse is at all a widespread one. But it is so improper that we insert our correspondent's letter calling attention to it, and take the opportunity of saying that to make such pecuniary arrangements with nurses is grossly unprofessional conduct.—  
ED. L.

## THE PLAGUE IN CONSTANTINOPLE AND THE NEAR EAST.

(BY THE BRITISH DELEGATE TO THE OTTOMAN BOARD OF HEALTH.)

SINCE the date of my last letter to THE LANCET<sup>1</sup> several cases of plague and of suspected plague have occurred in Constantinople, and the appearance of the disease in Samsoun and Batoum on the Black Sea, its reappearance in Smyrna, and the development of cases on board certain steamers, such as the *Equateur*, the *Maria Teresa*, and the *Portugal*, all indicate a certain degree of activity in plague infection in the near East.

In Constantinople, after the case of Sept. 17th, already reported, there was an interval of nearly a month without any known case of plague coming to light. In this interval the general mortality (so far as may be gathered from the statistics published each week) was about the average for this period of the year, and there was nothing to indicate the existence in the city of any unusually fatal disease. But on Oct. 13th a Greek child fell ill in a house in Djerah Moustapha Pasha-street, Galata. This street is in the infected quarter of Galata already described in my former letter, and the house in which the child lived is a short stone's-throw from some of the houses in which the earlier cases occurred. The child presented symptoms of high fever, headache, and delirium; she rapidly fell into the "typhoid" state, and on the 16th she died. After death the body was examined by a municipal medical officer who found a large glandular swelling in the right groin. (This had apparently not been remarked before death.) The house was at once surrounded by a cordon and a further investigation was made by a medical commission which concluded that the case had been one of plague. An examination was then made of the 26 surviving inhabitants of the same house, and it was found that the child's mother had a bubo in the right axilla, that one of the child's sisters (aged nine years) had a bubo in the same position, and that another sister (aged 11 years) had a bubo in the left groin. All three were removed to the municipal plague hospital at Omour-Yéri, on the Bosphorus, and the house and the adjoining house were emptied of their inmates who were sent to the segregation sheds adjoining the hospital. The three patients are now convalescent and no fresh case has occurred among the segregated "contacts."

Another short interval without cases followed, but on

Oct. 23rd a man fell ill in Beshiktash, a suburb on the Bosphorus to the immediate north of Pera and Galata. The patient was employed in carrying the dishes prepared in the Government kitchens to the houses of the various officials whose posts entitle them to Government rations. When seen on the 27th he was found to present fairly characteristic symptoms of bubonic plague, with a bubo in the left groin, and though a subsequent bacteriological examination failed to reveal the plague bacillus the case has been dealt with as one of plague. The patient and 11 contacts were removed to Omour-Yéri.

A little later (on Nov. 4th) a patient was admitted to the Greek Hospital in Stamboul, suffering from a disease which, from the clinical symptoms alone, was diagnosed as plague. This patient was employed in a bakery at Sari-Yéri at the northern end of the Bosphorus, on the European side, and some 15 miles from Constantinople proper. He is said to have fallen ill about Oct. 29th, and as he declared that he had not been in the town for six months prior to his illness it is not as yet clear how the infection reached him.

Finally, a fatal case of plague was reported two days ago from the village of Yakadjik, near Kartal, on the Sea of Marmora. Kartal is a station on the Scutari-Ismid line of railway and the village of Yakadjik is some 20 miles from Stamboul. The patient died on Nov. 4th. Full details of the case are at present lacking, but there seems to be some reason for believing that the infection was derived from Galata.

While the above cases indicate clearly that the infection of plague still exists in Constantinople, it is so far satisfactory that the disease remains for the present wholly sporadic and remarkably benign in character. Its benignity is clear from the fact that of the 27 cases recorded since the beginning of the year in or near the city only eight have proved fatal. The mortality-rate is therefore less than 30 per cent. A less satisfactory feature is the wide area from which the patients have been drawn. Several quarters of Stamboul on the south of the Golden Horn have furnished cases, while to the north of the Golden Horn Galata is a true *foyer* of plague, and cases have occurred in Cassim Pasha, Pera, and Beshiktash. At a still greater distance from the city there have been cases at Scutari, at Sari-Yéri on the upper Bosphorus, 15 miles away, and on the Asiatic shores of the Marmora, 20 miles away from the city.

The reappearance of plague in Smyrna has been confined to the occurrence of a single case. The patient, an Italian aged 42 years, was a conductor on the Smyrna-Aidin railway. He was taken ill about Sept. 15th or 16th with symptoms of plague, and plague bacilli were subsequently found in the contents of the bubo.

The outbreak at Samsoun, on the Black Sea coast of Asia Minor, has been rather more extensive, but the disease itself has been of no less benign a character there than that observed in the capital. Of 11 recognised cases only one proved fatal. The outbreak began about the middle of September and the last case was reported on Oct. 4th. It is noteworthy that the majority of the patients were employed in or about a certain grain market, the Bougdhai Bazar, and that as long as one month before the first human case was recognised a considerable mortality was observed among the rats in this market. It is reported that in the bodies of two rats found dead the plague bacillus was demonstrated. The source of the infection in this outbreak is unknown, but it seems highly probable that it was imported from Constantinople.

In Batoum, on the Caucasian shore of the Black Sea, three suspected cases of plague, with one death, were reported to have occurred about Oct. 27th. Here, also, the source of the infection is unknown and it can only be surmised that it came in some way either from Samsoun or from Constantinople, both infected ports.

Cases of plague on board ship always present points of great interest. Recently the following examples have been reported in the eastern Mediterranean:—

On Sept. 26th the s.s. *Maria Teresa* (Austrian Lloyd) arrived at Alexandria and reported two cases of illness on board. The history of the boat was as follows. On August 14th she arrived at Constantinople from Alexandria; she stayed there till the 29th, when she left for Odessa, returning to Constantinople a second time on Sept. 14th. On the following day she left again for Alexandria. On the 20th, five days out from Constantinople, the boatswain (*matrose*) was taken ill with fever and an inguinal bubo, and two days later a fireman was also attacked with fever.

<sup>1</sup> THE LANCET, Sept. 21st, 1901, p. 804.

After their arrival at Alexandria the patients were removed to hospital and plague bacilli were demonstrated in the contents of the bubo of the first patient and in the sputa of the second. A third case of plague developed in the person of a sailor on board the ship during her stay at Alexandria. The *Maria Teresa* was disinfected and left for Beirut, whence she was repulsed to Clazoméne (the Turkish lazaret near Smyrna). Here a fresh case of suspicious disease was landed, but it proved to be other than plague.

It is noteworthy in regard to the above history that plague was present in Constantinople during the first stay of the ship there, and that the date of the second departure of the vessel from the port coincided with the occurrence of a death from plague in the city. It is therefore permissible to surmise that the vessel became contaminated in some way at Constantinople; more particularly as she had called at no other known infected port from the time of her leaving Alexandria, six weeks before the disease appeared on board. A second case of plague on board ship was that of a patient who was landed in Constantinople from the s.s. *Eguateur* of the Messageries Maritimes. This ship arrived here on Oct. 17th, and reported all well on board, but the same day one of the crew was taken to the French Hospital with symptoms which proved to be those of plague. He was removed to the municipal plague hospital and is now convalescent. The itinerary of the *Eguateur* during her preceding voyage is of some interest in this connexion. She left Marseilles on Sept. 18th, touched at Naples on the 21st, and arrived at Constantinople, the first time, on the 26th. She left on the same day for Beirut; she left Beirut on Oct. 11th, called at Vathy on the 14th, at Smyrna on the 15th, and at the Dardanelles on the 16th, finally arriving at Constantinople on the 17th. The man had probably been ill for several days before the ship arrived at Constantinople the second time, and the question arises whether the ship did not in some way become contaminated when she called at Naples on Sept. 21st—a date when the infection was known to have existed in Naples; or whether she took the infection on board during her first call at Constantinople on Sept. 26th. A third case of plague on board ship was recently reported. A plague patient was landed at Port Said from the s.s. *Portugal* from Alexandria, on Oct. 27th or 28th.

The measures decreed by the Board of Health in relation to the above outbreaks in and near Constantinople have been briefly as follows. The single case at Smyrna was merely annotated on the bills of health, and no quarantine measures were imposed. Against Samsoun a quarantine of 10 days was decreed; and a similar measure was imposed on arrivals from Batoum. In regard to Constantinople ships leaving that port for other Ottoman ports have been subjected to no more than a medical visit on departure and on arrival. The flagrant inconsistency with which a simple medical visit is regarded as sufficient to safeguard other Ottoman ports against infection from Constantinople, while 10 days' quarantine is considered necessary in the case of arrivals from Batoum, Samsoun, and Alexandria, is obvious.

Constantinople, Nov. 7th.

## NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

*The Plague.—Reconstruction Work in Bombay.—The Incineration of Refuse for Indian Cities.—Barmaids in Calcutta.*

PLAGUE continues to spread and to develop throughout India. The severely affected districts of the Bombay Presidency—viz., the Satara, Belgaum, and Dharwar districts, with the Southern Mahratta country—return the great majority of the deaths, but the disease is actively spreading in the Punjab where last week there were nearly 400 deaths. Bombay city instead of showing a decline is returning higher figures—nearly 200 deaths having occurred there last week. There are indications of a recrudescence in Calcutta and at Karachi there is a tendency to increase. Poona is showing unmistakable signs of another outbreak and a fresh outbreak has occurred in the Bangalore cantonment.

Amongst the many improvements contemplated by the Bombay Improvement Trust none is of more importance than the reconstruction of the crowded district known as "1st Nagpada." It has long been the most insanitary area in the city. Intersected by narrow lanes and stinking gullies,

but without anything like a road, it was crowded with the roughest and dirtiest dwellings imaginable. According to the last census there was a population of 11,113, which gave a density of 376.1 to the acre, but omitting certain partially open places the population was in reality huddled together on less than 12 acres. Plague has always attacked this quarter with great severity. The Improvement Trust acquired the whole area and plotted out the land afresh. A broad road will run through it with subsidiary thoroughfares branching off. About a fifth of the ground will be free from houses. The trust adopted the excellent plan of reconstruction with demolition, so that the population was not all displaced to crowd the neighbouring quarters of the city. Model *chawls* have been built, and when the scheme is completed it is calculated that the area will house, notwithstanding the new roads, as many as 500 people to the acre. The work is proceeding apace, but those who know India can understand that these improvements cannot be done in a day.

Incineration of refuse is recognised as one of the greatest sanitary improvements of recent years, and the principle has attracted considerable attention in India. There are many more difficulties, however, in India than in Europe. The refuse is largely composed of vegetable matter and contains few or no ashes. It is, in fact, hardly combustible. It has been recently decided to make experiments with incinerators for certain cantonments and Mhow has been selected for a two-furnace Harrington incinerator. There is an incinerator by the same inventor in the suburbs of Calcutta, but it is necessary to have forced draught and a fume-cremator. When these latter appliances are not at work the furnaces cause a nuisance and an incinerator constructed in the crowded part of the city some years ago had to be abandoned. The paying results obtained in some of the English towns are impossible at present in India, and some fresh form of furnace, adapted to the nature of the material, will be necessary to make the burning of refuse successful. Some of the latest forms of furnace have not, I believe, been tried.

Whether in the interest of the health of the young "bloods" of Calcutta or in the interest of the women themselves, it has been decided to prohibit the employment of barmaids. The Board of Revenue will require from the opening of the next excise year "that at the place for which this licence is granted no female shall be employed in connexion with, or take part in, the vending of imported wines and spirituous and fermented liquors in any capacity whatsoever."

Nov. 9th.

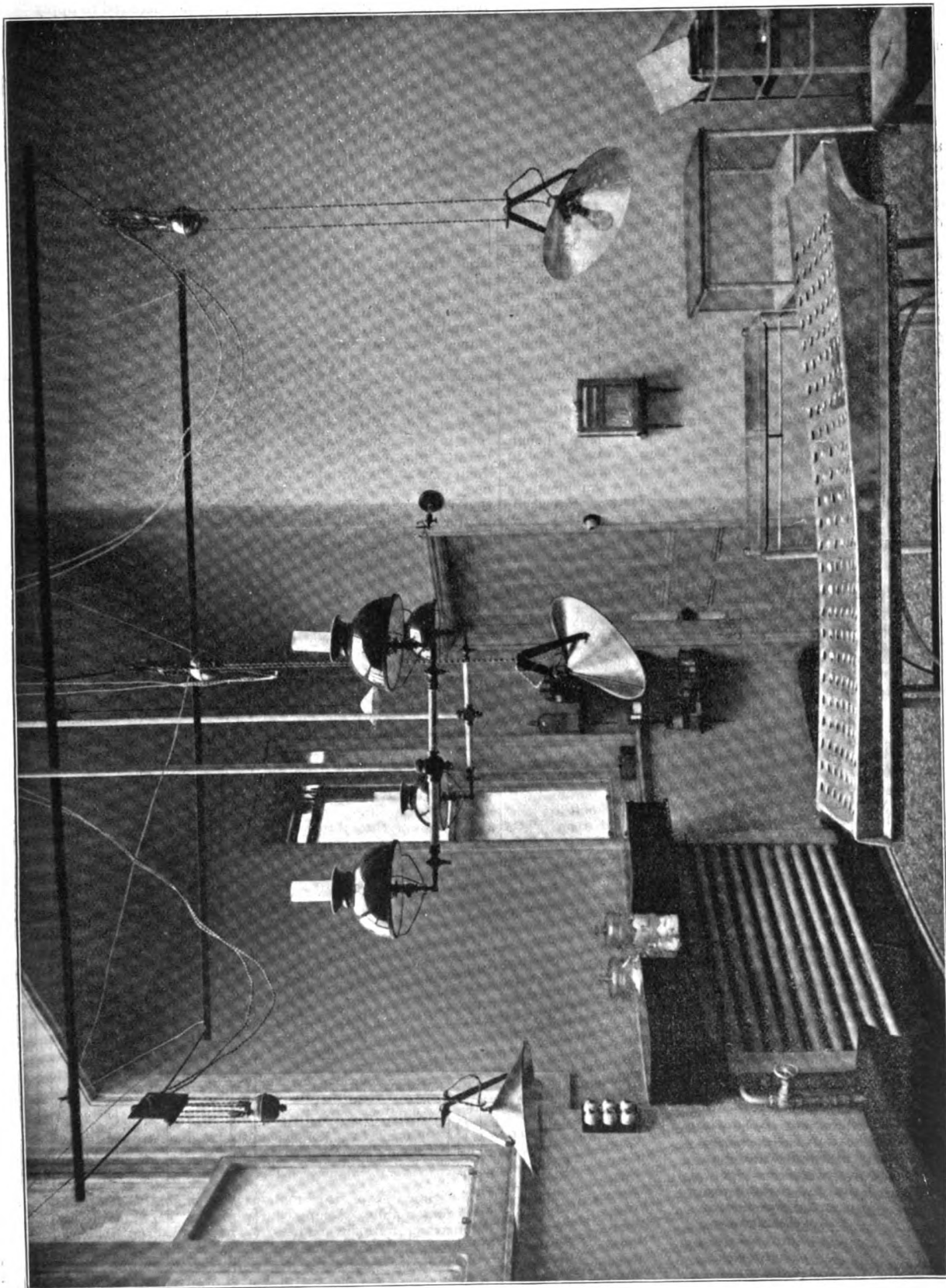
## THE LIGHTING OF AN OPERATION THEATRE.

BY PEYTON T. B. BEALE, F.R.C.S. ENG.

THE efficient lighting of an operation theatre by electric light is a matter of such general interest that I venture to bring forward a method which is at once simple, cheap, and satisfactory. The following description is by the maker, Mr. Francis Mulford, of Jackson-road, Holloway.

A steel frame maintained in a position about 10 feet above the floor by cross-wire stays from the skylight carries three trolleys which support three counterweighted tilting and swivelling shades (*vide illustration*). The trolleys have a lateral motion of about three feet. The shades are of solid aluminium, tilting through 180°, swivelling through a complete circle and rising and falling about three feet. Three 16-candle-power lamps are arranged in each, either one, two, or three being brought into use by means of two switches, one of which controls one lamp and the other two lamps. There are therefore six switches in all—two to each pendant. There are wall plugs for hand lamps, cautery, &c.

This arrangement was installed at the operation theatre of the Great Northern Central Hospital over a year ago and has been found to work excellently. The special points in its favour are: (1) the pendants and wires when not in use hang well above, and entirely on one side, of the operation table, so that any dust which may settle upon them does not fall upon the wound during an operation; (2) any amount of light can be obtained at will, at any level, at any angle, and on either side of the patient; (3) the light is absolutely steady; and (4) the arrangement is inexpensive.



The Lighting of an Operation Theatre.

## THE ORGANISATION OF THE PROFESSION.

THE BIRMINGHAM AND DISTRICT GENERAL MEDICAL  
PRACTITIONERS UNION, SECOND ANNUAL MEETING.

(FROM OUR SPECIAL COMMISSIONER.)

THE Birmingham and District General Medical Practitioners Union has now been in existence for two years, and on Nov. 21st it held its second annual meeting at the Birmingham Medical Institute. I hope subsequently to give some account of the formation, history, and action of this organisation; but I would first describe the annual meeting which has just taken place. It was held in the library of the Medical Institute and some 50 general practitioners were present, which, in view of the bad weather and the consequent increase of sickness prevailing, was considered to be a fairly good attendance. Mr. H. W. Langley Browne was in the chair, assisted by the two secretaries, Dr. E. D. Kirby and Mr. J. Neal. The annual report of the council, for the year ending Sept. 30th, 1901, was discussed. According to this document the Birmingham and District General Medical Practitioners Union now numbered 253 members, which showed an increase of 64 members in 12 months. There had been one death and 12 resignations, due for the most part to removal from the district. Though the subscription was only 5s. a year there were £32 12s. in hand. In an adjoining room there was a map of Birmingham studded with pins. White pins stood where the members of the union resided and black pins, I was informed, represented the residences of those who refused to join. It was gratifying to note that the white pins were in an overwhelming majority. Then we were informed that the medical practitioners of Walsall had joined *en bloc*, so that their local organisation had become one of the medical wards of the Birmingham and District Union. It is proposed that this union shall confine its action within the same boundary lines as the Midland Counties Branch of the British Medical Association, though these frontiers have not yet been accurately defined.

The annual report then described the success achieved in regard to the attempt made by the Hospital Saturday Fund, "at the instigation of Mr. Arthur Chamberlain and other capitalists," to impose on the public consultants of their own choosing. Not only was Dr. H. W. Irvine compelled to resign but such was the unanimity of the profession that intending candidates withdrew their applications. The affairs of the Coventry General Dispensary—an institution which has been repeatedly condemned by the Birmingham Branch of the British Medical Association—were next touched upon. The medical officers of this dispensary attend a third of the population of Coventry and yet receive barely 2s. per head per annum. The policy adopted was to refuse professional recognition of the medical officers of this dispensary, but certain consultants in Birmingham had disregarded this resolution and thus retarded the desired reforms. The report further explained that various objectionable forms of advertising had been checked and that a journal describing the work of the union would be issued. Then an increased rate of discount for drugs had been obtained by the action of the union and also reduced terms for insurances of various kinds. Finally a register for locum-tenents had been established. Altogether some useful and practical work had been achieved, but it was necessary to collect more statistics before the question of contract or club work could be taken in hand. For this purpose printed forms were distributed which, when filled up, would show the rate of payment received in proportion to the work done.

After this report and the minutes of the previous meeting had been adopted a discussion arose as to what action could be taken with regard to the consultants who still consented to meet the medical officers of the Coventry Dispensary. By the timidity and the doubts manifested in regard to this matter it was easy to perceive that the members were as yet new and inexperienced in the work of a militant organisation of this description. First it was proposed that the names should be published, but then fear was expressed that a black-list might lead to a prosecution for libel. As a safer course it was urged that a white-list might be issued. No one, however, knew all the names of the consultants who might thus be proclaimed as having stood by the union, and

it would be a great injustice to omit any name. At last, on the motion of Mr. N. L. U. Somers, it was decided to apply to the secretary of the Medical Union at Coventry for the names. Thus in the course of time a white-list will be issued, and this is the next most effective measure that can be taken short of publishing a black-list.

There now followed a long array of proposed alterations of rules. For the sake of brevity it was proposed to drop the word "medical" in the title of the union, but it was objected by Dr. A. W. Aldridge that as they did not intend to include legal and dental practitioners they must specify clearly that they were a union of medical practitioners, and this view was adopted. The clause in the rules by which each member guaranteed the sum of £1 was struck out on the ground that the money was not now wanted and that the rule could not legally be enforced.

Mr. Somers now brought forward a motion proposed by Mr. E. R. Hennessy, as that gentleman was unavoidably absent. This motion involved a rather important principle. It established the right of any qualified medical practitioner to become a member of the union if he was proposed and seconded by any two members of the union and if he signed a written declaration of his willingness to abide by the rules of the union. Had this proposal been carried the right of the council to veto any such election would have been abolished, but it was defeated by a large majority. Confidence in the discretion of the council was expressed, and a protest was very justly made that it was too early in the history of the union to begin to alter its constitution. The rules had been drawn up with great care and after much deliberation and they had better be given a fair trial before attempting to patch and to alter them. There is every reason to believe that the confidence in the council which has thus been expressed by words and by vote is in every sense thoroughly justified and well-founded. But, putting this particular council and union altogether aside, and dealing with the matter purely as an abstract question, there is something to be said in favour of Mr. Hennessy's proposal. It is a point on which I have often had occasion to insist. A militant organisation of this description must act in an inverse sense to the aim governing the management of most other societies. The object in this case is not to bring the most reputable and respectable men together, but rather the reverse. It is the practitioner of the class known as the "sixpenny doctor," who is the most to be feared. It is a case of rejoicing more over the one lost sheep than over the ninety-and-nine. It is precisely these doubtful persons who must be brought into line. It would never do to allow social considerations or personal feelings to rule such men out of the union. The union should not be a select society club, but a fighting body governed by considerations of the strategy necessary to achieve the end in view; therefore it must use its best endeavours to recruit that class of men who by reason of their less favourable position are most easily induced to undersell or to undercut their fellow practitioners. But it is just conceivable that a council if left to itself might allow its dislike of an individual to override what should obviously be the policy of the union. Again I repeat that these observations are not in any way meant to apply to the council of the Birmingham and District General Medical Practitioners Union, but are purely abstract considerations. The argument which prevailed at Birmingham was that it was preferable for the council to veto a candidate than that the union should have to expel him shortly after the election.

A lengthy discussion now ensued which, though interesting in itself, had not any very urgent or direct bearing on the main purpose of the union. Mr. Somers moved:—

That this meeting desires to express its disapproval of that portion of the Vaccination Act which authorises public vaccinators to call at the home of a child to be vaccinated without a special request from the person having custody of the child.

That it is degrading an honourable profession to require any of its members to offer their professional services unsolicited.

The proposer of this motion was evidently grieved to find that public vaccinators were far too amiable and insinuating in their manners. They had been known, it appeared, to bestow new pennies on recalcitrant children. As for the distribution of sweets, this was a well-established method of bribery and corruption. But, even worse than any such amiable weakness, there were instances where the public vaccinator had actually given gratuitous medical advice. As an excuse for refusing vaccination the mother might say

that her child was not well. Thereupon the public vaccinator would insist on seeing and examining the child. Then, if the child was really unwell, he would give advice and prescribe remedies, concluding by announcing that he would call again. On his return the child might be well, and the mother, in gratitude for the good advice received, would allow the child to be vaccinated. Thus the private practitioner lost both his fee for medical attendance and his fee for vaccinating the child. This was State competition against the private practitioner. It augmented the burdens of the ratepayer and was doubly hard on the private practitioner, for he lost his patient and found his rates increased. Mr. Somers, however, recognised that the public vaccinators held a very responsible position and he said that he would like to see them better paid, but at the same time they should not be put in a position to interfere with private practice. Mr. H. W. Pooler delivered a very able speech in reply, backing each argument with numerous statistics. He thought that the object of their union was to elevate the profession. Therefore it was more necessary to urge private practitioners to vaccinate more efficiently than to attack the public vaccinators who were consistently doing their duty. It was also the object of their union to try to obtain better fees; why then should they strive to hit at the public vaccinators who, comparatively speaking, were fairly well paid? It was necessary to inquire why domiciliary visits had been instituted before condemning them on the slender grounds that sweets were given to the children. The first point to ascertain was whether domiciliary visits had secured a more efficient vaccination of the population. Statistics showed that during the five years previously to 1877 there was an annual average of 4.7 per cent. of children unaccounted for. During the next five years the annual average rose to 5.8 per cent., and went on increasing till for the five years preceding the year 1897 the annual average of children who were not vaccinated amounted to 20.3 per cent. For 1898 the proportion was 21 per cent. It was then that the Act was passed authorising domiciliary visits, and before this law could be modified it was necessary to prove that it had failed to produce the desired effect. The interests of the population at large must take precedence over the desire to protect the interests of any one particular class of medical men. The result of domiciliary visits was that in the first year 164,000 more vaccinations had been effected. But had this injured the private practitioners? In the Birmingham district of Aston, during the year previously to the Act, private practitioners had vaccinated 4620 children and the public vaccinator 2064 children. After the Act was passed the average annual increase of vaccinations effected by the public vaccinator amounted to 928; but this had not in any way injured private practitioners. The number of private patients whom they vaccinated had not decreased; it had remained stationary, or, rather, it had increased to the number of 24. Thus, and without injuring private practitioners, the number of vaccinations effected in the single district of Aston had been augmented to close upon 1000 per annum. Such solid advantages were not to be lightly set aside.

In the course of the discussion that followed this speech protests were made that there was no desire to act against efficient vaccination, but only to prevent interference with private practice. On the other hand, it was urged that the private practitioner was the undisputed master of the situation during four months. It was for him to see that the children were vaccinated during that time and before the public vaccinator had the right to pay domiciliary visits. Ultimately the motion was rejected by a large majority.

The President (Mr. H. W. Langley Browne) then called upon me to deliver an address and I had the pleasure of explaining the methods of organisation adopted by medical men in different countries on the continent, comparing what was done abroad with the movement in England. It is not for me, however, to describe my own speech, and I will content myself with expressing my gratitude for the hearty reception which I received.

Dr. Kirby followed, pointing out the great service which THE LANCET had rendered by the articles that it had published on the economic position of the medical profession in the Birmingham district. They had helped to awaken medical men to a sense of the dangers by which they were menaced and had rendered the work of organisation more easy. After this the officers of the union were elected for the year and the annual meeting was brought to a conclusion.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

### *The Work of the Malarial Expedition of the Liverpool School of Tropical Medicine.*

THE Governor of Sierra Leone (Sir Charles King-Harman) has stated in a letter recently received by Major Ronald Ross, F.R.S., that out of 400 public servants only three were on the sick-list at the end of October, and these were not suffering from malarial disease. The nursing home was empty. His Excellency added that he had inspected the work which was being done by the Liverpool expedition under Dr. Logan Taylor, in draining and cleansing the town, and he had been surprised at the improvement which Dr. Taylor had effected. The inhabitants were much interested in the mosquito question, and they had the intelligence to appreciate the good that was being done for them by the united efforts of the Liverpool School and of the Government of Sierra Leone. The figures quoted suggest that the sick-rate in Sierra Leone has fallen below 1 per cent. This, if it lasts, will be wonderful. Even in India the sick-rate among European troops is about 10 per cent., and among the native troops about 3 per cent.

### *The School of Tropical Medicine and Sir Alfred L. Jones, K.C.M.G.*

The following resolution of congratulation to the chairman of the above school, Sir Alfred L. Jones, K.C.M.G., was adopted at a special meeting of the committee:—

That the Liverpool School of Medicine desires to express to its chairman, Sir Alfred Jones, K.C.M.G., warmest congratulations on the honour paid to him by His Majesty the King. The committee of the school wish to take this opportunity of expressing their own high appreciation of the value of their colleague's (Sir Alfred's) services to humanity by his foundation of this school and by his willing sacrifice of time, money, and energy in the furtherance of its objects.

### *The Hospital Saturday Fund.*

The annual meeting of the subscribers to the Hospital Saturday Fund was held on Nov. 18th, the Lord Mayor being in the chair. The annual report testified to the continued success of the fund, stating that the amount raised was steadily increasing. Firms were gradually being induced to adopt the weekly system of collection, the most efficient and beneficial to the fund, and also the easiest one for the subscribers. The amount realised from the workshop collections this year was £6645 15s. 2d., an increase on that of 1900 of £371 5s. 10d., or nearly 6 per cent. Unfortunately, the ladies' street collection was somewhat lower—viz., £767 7s. 3d., against £829 7s. 6d. in the previous year, making a total of £7413 2s. 5d., being a net gain for the year of £309 5s. 7d. That amount, together with the Hospital Sunday collection, which showed a substantial increase, had been divided amongst the medical charities of the city, the total amount so distributed being £13,365 10s. The expenses were heavier than usual, the committee having found it necessary to employ more assistance efficiently to carry out the organisation, and also to provide a large number of additional boxes to meet the growing demand.

### *Presentation to a Police Surgeon.*

The members of the F Division of the police force have presented one of their late medical officers, Dr. T. Gerald Garry, on his departure for Florence with an illuminated address as a token of the esteem and respect in which he was held by the division. Dr. Garry was connected with the police force for over six years.

Nov. 28th.

## WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

### *Colour-blindness among Swansea Schoolboys.*

ONE of the medical officers of the Swansea School Board (Dr. Rhyr Davies) has recently been subjecting some of the boys attending the schools to the Holmgren wool test and has also been testing their acuteness of vision and hearing. Altogether 1500 boys were examined, 50 being taken from each school, and 81, or 5.4 per cent., were found to be

colour-blind. Roughly speaking, in every class of 50 boys, although each boy was not examined, two or three were colour-blind, five or six lacked acuteness of vision, and seven or eight were more or less deaf. If the class teachers are made aware of the significance of these results a great deal of good will accrue from the examinations, which should be extended to the remaining pupils at all the schools in the town.

#### *Prevention of Consumption.*

The Bath Town Council decided on Nov. 18th to contribute £250 yearly for two years towards the cost of building the sanatorium which it is proposed to erect at Winsley for the counties of Somersetshire, Wiltshire, and Gloucestershire.—A well-attended meeting was held at Bedminster Town Hall on Nov. 18th, under the presidency of Canon Griffiths, in support of the proposal to erect a sanatorium at Winsley for consumptive patients of Gloucestershire, Somerset, and Wilts. Addresses were delivered by Dr. P. Watson Williams, Dr. J. Michell Clarke, Dr. D. S. Davies, and Dr. Lionel Weatherly. The last-named, who is chairman of the Executive Committee, stated that about £6000 had been promised towards the £20,000 required for the sanatorium and that the committee must have another £8000 before they could lay the foundation-stone of the building.—A circular letter has been issued by the Yeovil Board of Guardians to the boards of guardians in Somersetshire suggesting that a joint hospital should be erected or acquired for the treatment of pauper consumptive patients from any part of the county.—The newly-formed branch for South Wales and Monmouthshire of the National Association for the Prevention of Consumption and other Forms of Tuberculosis is carrying on its work with vigour. A meeting of the Executive Committee was held on Nov. 22nd, when the report of a sub-committee was adopted, recommending voluntary notification of cases of phthisis. It was suggested by Dr. J. Howard-Jones, medical officer of health of Newport, that steps should be taken to induce Parliament to adopt preventive measures in Government works.—The town clerk of Cardiff has drawn up a circular which is to be sent to county and district councils pointing out the powers possessed by sanitary authorities with regard to the provision of hospitals for the treatment of persons suffering from consumption.—A very large edition of Dr. Isambard Owen's address to the inaugural meeting of the Cardiff branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis has been printed and is to be spread broadcast throughout South Wales and Monmouthshire.

#### *Appointment of a Colliery Surgeon in the Rhondda Valley.*

The colliers employed at the National Colliery, Wattstown, in the Rhondda Valley, have elected Mr. T. J. Davies as their surgeon at a fixed salary of £416 per annum. This sum does not include the provision of a surgery, drugs, &c. There were 37 applicants for the post, of whom nine were balloted for, Mr. Davies receiving 653 votes, while for the next name on the list only 121 votes were recorded. Mr. Davies has been acting surgeon for the colliery for the past three years as assistant to the late Mr. Ivor Lewis.

#### *The Local Government Board and Isolation Hospitals.*

In a circular issued by the Local Government Board to district councils it is laid down that a local authority should not contemplate the erection of a small-pox hospital on any site where there would be within a quarter of a mile a hospital, a workhouse, or some similar institution, or a population of from 150 to 200 persons, or where within half a mile of the site the population would exceed from 500 to 600 persons. If these conditions are not complied with the sanction of the Board to a loan for the erection of an isolation hospital is withheld, unless the sanitary authority gives an undertaking that the hospital will never be used for small-pox patients. In several districts, however, this position of the Board is defeating the end which it has in view. At Thornbury, in Gloucestershire, where there is a population of nearly 17,000 persons, the rural district council recently decided to build a substantial permanent hospital, and desired, should occasion arise, to use it for small-pox; but as sanction to a loan under these circumstances is not forthcoming a less substantial building will probably be erected for which payment will be made out of the current rate. Many contractors, moreover, are willing to allow payment for the construction of iron or wooden buildings to be spread over three or five years, so that the

way of sanitary authorities is smoothed and they are enabled to ignore the Local Government Board.

#### *Wiltshire County Asylum.*

At the meeting of the Wiltshire County Council held on Nov. 20th it was decided to erect an iron isolation hospital for the county asylum at an estimated cost of £1750, and also to build new visiting and attendants' rooms at an expenditure of about £2000.

Nov. 25th.

### SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Glasgow University.*

As previously announced, the finance committee of the town council recently resolved to recommend the corporation to subscribe a sum of £5000 to the fund now being raised for the better equipment of Glasgow University. This recommendation was submitted to the town council at a meeting on Nov. 21st and led to a somewhat heated discussion. Several of the councillors energetically opposed the proposal and indulged in free and not very relevant criticism of the attitude of some of the University professors to so-called social questions. In support of the proposition the precedent provided by a gift of £10,000 at the time the new University buildings were erected was pleaded and it was pointed out that other cities were offering financial support to their several universities. The Lord Provost, too, threw the weight of his influence in favour of the committee's recommendation. He commented on the excellent relations existing between the city and the University and on the interests common to both of them. Referring to the suggestion to utilise the proposed gift for the foundation of a lectureship on social philosophy, he urged that the modern problems presented by the city were questions of the first importance and that it concerned the welfare of all classes to have them presented to the attention of the rising generation. These arguments, however, proved in vain, and the council by a majority of 32 to 28 remitted the proposal to the committee for further consideration.—The following have been elected representatives of the medical side of the quadrangle on the Students' Representative Council: D. R. Hunter, M.A., David M'Leish, M.A., D. F. Riddell, M.A., Miss Gertrude Bostock, B.Sc., and Miss Oversby.

#### *The Suppression of Tuberculosis.*

A public meeting, under the auspices of the local branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, was held in Glasgow on the evening of Nov. 19th. The Duke of Argyll presided and was supported, among others, by the Lord Provost, Sir James Crichton Browne, F.R.S., Dr. James Finlayson, Professor McCall Anderson, and Professor William Macewen. After some introductory remarks by the chairman Sir J. Crichton Browne made an eloquent speech on behalf of the National Association. Allowing that the mortality from consumption had been considerably reduced during the last 30 years he quoted figures to show that the death-rate of the disease in Glasgow was still 20 per 10,000. He considered that without some additional effort the mortality was not likely to be much further reduced. He therefore claimed support for the endeavour to educate public opinion in the methods necessary for the prevention and treatment of the disease. In particular, he advocated the dissemination of information regarding the evils of indiscriminate spitting, the necessity for disinfection, and the value of sanatoriums, which, he said, ought to be provided by local public authorities. Professor McCall Anderson, who also spoke, paid a warm tribute to Mr. William Quarrier under whose influence a sanatorium for the treatment of the consumptive poor of the West of Scotland has been established at Bridge of Weir. In this institution, Professor Anderson said, 65 per cent. of 95 patients had been practically cured even though many of them had been admitted in a comparatively advanced stage of the disease. The Lord Provost, in proposing a vote of thanks to the Duke of Argyll, remarked that the corporation were determined to do all that was possible in the direction of preventing the spread of consumption, whether they saw their way to take steps towards the cure of it or not. At

a recent meeting of the town council a proposal was submitted recommending a donation of £250 to the local branch of the National Association. This was met by an amendment that the sum should be increased to £500 and on a vote the amendment was carried. In the course of the discussion Dr. Carswell argued that a much larger responsibility than the gift of a few hundred pounds lay on the corporation. The establishment of sanatoriums was, he urged, merely touching the fringe of the question. What was really needed was the introduction of fresh air and sunlight into the congested areas of the city. It was for the corporation to undertake this and in doing so they must be prepared to spend many thousands of pounds.

#### *The Plague in Glasgow.*

Dr. A. K. Chalmers reports that the city is now entirely free from plague. Of the five patients attacked one has died, whilst the other four have completely recovered. The Central Hotel, where the outbreak originated, has been re-opened, and with a view to establish public confidence the Lord Provost on the opening day dined and slept in the hotel.

#### *Glasgow Technical College.*

Some two months ago Mr. Carnegie promised to subscribe £25,000 to the building fund of the Glasgow Technical College on condition that an equal sum was "promptly" raised from other sources. This condition has been realised in abundant measure. At the last meeting of the council the chairman was able to announce that he had received two anonymous donations for £25,000 and £10,000 and other sums, making a total of £44,000. The fund, including Mr. Carnegie's subscription, now amounts to nearly £170,000. A large share of credit for this highly satisfactory position is due to the energy and tact of the chairman, Mr. W. R. Copland.

#### *Death from Electricity.*

A fatal accident of an unusual nature occurred a few days ago at the Glasgow Corporation Electric Power Station. A labourer who was working on the roof lost his balance and fell. In his descent he grasped a metal bar which was charged with electricity. As a result his hands were practically destroyed and he was also severely burned on the scalp. He died a few hours after admission to the hospital.

#### *Gifts to Glasgow Institutions.*

By the will of the late Mr. William Langlands a sum of upwards of £10,000 falls to be distributed among medical and other charities in Glasgow. Of this the Royal Infirmary and the Western Infirmary receive each £1000; the Cancer Hospital, the Training Home for Nurses, and the Nursing Association, each £500; and smaller sums are devoted to various special institutions and hospitals.

Nov. 26th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Catholic University School of Medicine.*

At the Medical School of the Catholic University in Cecilia-street, Dublin, the Dean of the Medical Faculty, Sir Christopher Nixon, distributed the prizes awarded at the various school examinations held during the year. The meeting, which was largely attended, took place on Nov. 23rd.

#### *Dublin Hospital for Diseases of the Skin.*

The annual meeting of the friends and supporters of the Dublin Hospital for Diseases of the Skin was held on Nov. 7th at the Mansion House, the Lord Mayor occupying the chair. Mr. O'Neill, the honorary physician, dwelt on the necessity of procuring the installation of a lupus lamp in order to apply to that disease the treatment discovered by Professor Finsen of Copenhagen. A fund has been started with that object and many subscriptions have been received.

#### *Sir Philip Smyly's Son.*

It is announced in the *London Gazette* that the King has been pleased to give directions for the appointment of Mr. Philip Crampton Smyly, Attorney-General of Sierra Leone, to be Chief Justice of that colony. It will surprise many of the friends of Sir Philip Smyly, the eminent surgeon of Dublin, to know that he can possibly have a son sufficiently old to be a Chief Justice. Such, however, is the fact.

#### *The Ulster Medical Society.*

The annual dinner of the Ulster Medical Society was held

in Princes' Restaurant, Belfast, on Nov. 21st. The President (Professor W. Whitla) occupied the chair and the invited guests included the Lord Mayor of Belfast (Sir D. Dixon, D.L.), the President of the North of Ireland Branch of the British Medical Association (Dr. J. S. Darling of Lurgan), the President of the Royal College of Surgeons in Ireland (Mr. T. Myles), the President of Queen's College, Belfast, Lieutenant-Colonel R. G. Thomsett, R.A.M.C., Dr. P. Redfern, and Mr. T. MacLaughlin (Londonderry). After dinner the chairman proposed the first two toasts, "The King," and "The Queen, Prince and Princess of Wales, and other Members of the Royal Family." The next toast was also proposed by the chairman, "The Lord Lieutenant and prosperity to Ireland," to which Mr. T. Myles of Dublin replied. "The City and Trade of Belfast" was proposed by Dr. J. W. Browne and responded to by the Lord Mayor of Belfast. The President of Queen's College, Belfast, proposed the toast of "The President of the Ulster Medical Society," to which Professor Whitla replied, and announced that he was prepared to offer to the society the gift of a building for a medical institute where meetings of the society could be held and a medical library established, on condition that the members could see their way to provide an adequate annual income for its maintenance. This generous offer was received with much enthusiasm, and it is satisfactory to note that substantial guarantees to provide the necessary upkeep have been obtained. Excellent songs and recitations were given at the dinner by Mr. Imrie, Mr. Livingstone, and Dr. J. S. Morrow.

#### *The Royal Victoria Hospital, Belfast.*

The board of management of the Royal Victoria Hospital, Belfast, on Nov. 23rd appointed Lieutenant-Colonel A. Deane, I.M.S. (retired), resident medical superintendent of the hospital. Originally there were 29 candidates from all parts of the United Kingdom, and a large sub-committee of lay and medical members of the board of management was appointed to examine into the qualifications of these applicants. This sub-committee, composed of commercial and professional gentlemen, had three prolonged sittings and considered in the most careful way the testimonials, experience, &c., of each candidate, and finally decided unanimously to recommend Lieutenant-Colonel Deane. On this sub-committee there were also representatives of the ladies on the board of management.

#### *Heroic Death of an Irish Dispensary Medical Officer.*

It is with the deepest regret that I announce the death, under peculiarly sad circumstances, of Mr. W. Smyth, L.R.C.S. Irel., dispensary medical officer of Dungloe No. 2 district, co. Donegal, which took place at his residence, Ro-hine Lodge, Burton Port, Donegal, on Nov. 22nd. It would appear that some weeks ago an outbreak of typhus fever occurred on Arranmore Island, which is distant about three or four miles from Burton Port, on the western seaboard of Donegal. Mr. Smyth, in whose district this island is situated, was most anxious to have the patients removed to the isolation hospital at Glenties, on the mainland, but in this he was met with such difficulties and opposition that Dr. McCarthy, Local Government Board Inspector, was sent to his assistance. The fishermen would neither lend their boats nor would they row the fever patients across. An old and unseaworthy boat was, however, purchased by the relieving officer, and the two medical men, who were novices at rowing, set off in her for the island. On their arrival new difficulties arose, as the friends of the patients opposed their removal, and it was only with the help of a police escort that the medical gentlemen could at last make their way to the houses where the typhus-fever-stricken patients lay. Under police protection they entered the houses and removed the patients to the boat and began their homeward journey. While on the way they hailed a boat which was manned by six policemen and requested to be taken in tow to Burton Port, but these protectors of their country would neither come near the boat containing the patients nor render any assistance. Mr. Smyth and Dr. McCarthy at length, tired out with their unaccustomed exertions, reached Burton Port, where an ambulance awaited their arrival, and the patients were removed to Glenties Fever Hospital, where they are progressing favourably, but Mr. Smyth caught the infection of typhus fever and succumbed in a few days, a victim to that fell scourge which has proved fatal to so many medical men at various

times in Ireland. The great heroism of the medical man in carrying out his duty in the teeth of such difficulties and in the face of such selfish, ignorant, and superstitious opposition is worthy of the highest commendation. The Victoria Cross has been given for many a less heroic act. The saddest part of this tragedy is that he leaves a widow and eight children. It is noteworthy that his predecessor met his death under exactly similar circumstances. It is to be hoped that the authorities will inquire into the alleged utter selfishness and inhuman conduct of the police and the fishermen and that they will make some suitable provision for Mr. Smyth's widow and children.

Nov. 28th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

### *Competition for the Nomination of Dental Surgeons to the Hospitals.*

THE Assistance Publique, in furtherance of an ideal which it has set up for some time past, has just given notice that dental surgeons to the hospitals will be appointed after competition. Candidates will have to submit proofs that they have possessed the degree of Doctor of Medicine for three years and that they have attended during two years at the practice of a dental hospital. For former *internes* of the Paris hospitals these two periods of three and of two years are reduced to one year each, while the two-year period of attendance is, for this competition only, reduced to one year in the case of candidates other than former *internes*. The competition will include two kinds of tests—namely, “*épreuves d’admissibilité*” and “*épreuves définitives*.” In the first class there has to be submitted a written paper on some pathological subject, for which two hours will be allotted. There is also a practical test in the examination of a patient who is suffering from some ordinary medical or surgical affection and another in the examination of a patient who is suffering from a dental affection. For each of these examinations the candidate will be allowed 20 minutes to go over the case and to form his diagnosis, while he will be allowed 15 minutes to lay his opinion before the jury. In the second class—the *épreuves définitives*—are included the following:—1. A *viva-voce* examination in dental pathology or therapeutics. The candidate will be allowed 10 minutes to think over his answer and the same time in which to deliver it. 2. A *viva-voce* examination on the theory of artificial dentures. Candidates will be supplied with a model of a mouth on which to demonstrate their ideas as to the construction and application of the denture. Candidates will have 10 minutes in which to think over what they are going to say and 10 minutes in which to say it. 3. A written report upon a patient suffering from some dental affection. 15 minutes are allowed for this and the report must be read out as soon as it is finished. The jury will consist of five members—namely, one surgeon and one physician to the hospitals and three hospital dentists. But as a temporary arrangement which will hold good for the first two competitions only the jury will consist of two surgeons and one physician to the hospitals and two hospital dentists. Hospital dentists are compulsorily retired at the age of 65 years.

### *Cases of Whooping-cough in Trains.*

Dr. Variot is carrying on an active campaign to make it generally understood that children suffering from whooping-cough should be isolated when travelling by train. Change of air is the chief method of treatment of this disease and Dr. Variot wishes to make it obligatory upon the railway companies to provide special compartments for children with whooping-cough who have been certified as such by a medical man. Any ordinary carriage would do, provided that it were labeled “Reserved.” All blinds or curtains should be removed and the upholstery work should be covered with some material which is smooth and impermeable, so that it could be easily sterilised. After the children have left the carriage all the cushions should be taken out and disinfected, while the windows should be washed down with a solution of perchloride of mercury. Following out some suggestions of M. Albert Robin (president of the association of medical men practising at various health resorts), in conjunction with the Minister of Public Works, the railway companies are shortly going to introduce important improvements in

the hygiene of railways. It is much to be wished that Dr. Variot's suggestions may be acted upon.

### *The Spittoons at the Gare du Nord.*

As is well known the Gare du Nord is provided with spittoons. M. Périer has just made an investigation into the utility of these appliances and here are the results. The spittoons stand at a height of one metre above the ground. On Oct. 18th 625 persons passed the spittoons on platform No. 6, of whom three spat on the ground and two in the spittoons. Between 5 P.M. and 5.30 P.M. 315 persons passed the spittoons on platform No. 12, of whom eight spat on the ground and only one in the spittoon. On Oct. 19th out of 450 persons who passed the spittoons on platform No. 6 12 spat on the ground and only one in the spittoons. From half-past eight to nine o'clock 410 persons passed the spittoons on platform No. 15, of whom seven spat on the ground and one in the spittoons. On Oct. 20th 630 persons passed the spittoons on platform No. 6, nine of whom spat on the ground and not one in the spittoons. From 11.15 to 11.45 580 persons passed the spittoons on platform No. 12, of whom four spat on the ground and only one in the spittoons.

### *Hospital Abuse.*

M. Mourier, the chairman of the General Board of the Assistance Publique, has just appointed a committee of ways and means to study the question of how best to exclude from the hospitals those who are really neither poor nor necessitous. In this connexion the Seine Medical Practitioners Association has requested its members to address as soon as possible any relevant communication which they may wish to make to Dr. Rotillon who is a member of the committee in question.

### *A Method of Writing for the Blind.*

M. Dussaud laid before the Academy of Medicine at their meeting held on Nov. 19th a method for enabling blind people to write in the same manner as they read, a result which has been vainly sought for during 70 years. The Braille alphabet, as everybody knows, is made out of 82 signs obtained by the varying combinations of six dots. These are stamped in relief on the paper and the blind person reads them by passing his fingers over the surface. To reproduce these signs so that they can be read in their turn the blind person drives a stylus into the paper and so makes a depression—that is to say, he writes his signs on the back of the sheet so that they come out in relief on the front. Therefore, he has to write these signs the reverse way, as engravers do. In this way it will be seen that writing for the blind under present conditions offers many difficulties, for he has to learn his alphabet twice over—once to read it and in a reverse manner to write it. He only has the combination of six dots to work with, and therefore he has to write an “e,” for example, so as to read an “i,” and so on. This is a maddening process. M. Dussaud employs a metal regulator divided into compartments carefully aligned. At the bottom of each compartment there are six holes and this regulator is placed on the paper. Underneath the paper another regulator is placed corresponding to the top one, but having six points which stick up into the six holes of the one on the top. The blind person drives his stylus into the necessary holes to form a letter, but in place of making a hole he forces together the two regulators, and so the letter is produced in relief by the points of the regulator underneath driving the paper up through the holes of the one on the top. He therefore can write directly characters which can be read. The same method is applicable to writing figures or music, and it has brought about a real revolution in the lot of the unfortunate beings who are deprived of the sense of sight.

Nov. 28th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

### *The Berlin Medical Society.*

THE first meeting of the Berlin Medical Society after the summer recess took place on Oct. 30th. The honorary president, Professor Virchow, who was pre-sent for the first time since the celebration of his eightieth birthday, was again the object of general and hearty congratulations. The presidential chair was decorated with flowers and when Professor Virchow arrived he was received with applause and

addressed by Professor von Bergmann on behalf of the society. Professor von Bergmann described his work in connexion with the society of which Professor Virchow was one of the founders and since 1882 has been president and lately honorary president. The society, which is at present accommodated in Langenbeck House, belonging to the German Surgical Association, intends to build premises of its own, to be called Virchow House, for which considerable funds have already been collected. Professor Virchow, in his reply, said that he was proud of so many marks of sympathy and glad to see how strongly the corporate feeling of the medical profession showed itself on this occasion.—Professor Senator then read a paper on Banti's Disease. In 1894 Banti described an affection which is characterised by anaemia, enlargement of the spleen, and cirrhosis of the liver with ascites. The duration of the disease was about six years, and it was caused by infection originating in the intestinal canal. Bacteriological examination of the blood gave no result, but the red corpuscles and the leucocytes were found to be decreased. Frequent hæmorrhages from the nose, the stomach, and the intestines were a very characteristic symptom. The diagnosis was not easy; for the disease might be mistaken either for leukaemia or for cirrhosis of the liver. Banti recommended the removal of the spleen by operation. Of 11 cases treated in this way nine recovered and two died from hæmorrhage. Professor Senator said that the prognosis was not so bad, and recommended a nourishing diet combined with the administration of ferruginous compounds and arsenic. He then showed a patient who for the last seven years had suffered from overgrowth of the spleen, and who a few months ago developed considerable ascites. 24 litres of fluid were withdrawn by puncture of the abdominal cavity, the result being that the ascites had now completely disappeared. The liver was apparently normal, there was slight albuminuria, and the red corpuscles of the blood, the hæmoglobin, and the leucocytes were decreased.

#### *Quinine in Surgery.*

Dr. Marx, writing to the *Centralblatt für Chirurgie*, calls attention to quinine as a styptic and antiseptic agent. According to his experiments hydrochlorate of quinine has the power of causing agglutination of the red corpuscles of the blood, and in surgical practice compresses wetted with a solution of it may be applied to wounds; it is especially to be recommended for parenchymatous hæmorrhages. Quinine has, of course, only a limited disinfecting power, but in aseptic operations it will serve to stop parenchymatous hæmorrhage and destroy the few pathogenic germs which may have come from the surgeon's hands into the wound. Perhaps in general septicæmia intravenous injections of quinine might be useful.

#### *Cancer and Malaria.*

In a paper read before the German Association of Naturalists and Medical Men, and published in the *Deutsche Medicinische Wochenschrift* Professor Löffler has suggested the treatment of cancer by inoculation of malaria blood. In the course of an historical study of malaria he has found that several ancient authorities mention cases in which malignant growths disappeared when quartan fever had developed. He was therefore of opinion that malaria might, in fact, be made available as a therapeutic agent, and that injection of malarial blood might be used to produce malaria in a patient suffering from malignant disease. This suggestion was not of a nature akin to the endeavours that have been made to cure cancer by inoculation of erysipelas, for erysipelas was a disease which could not be arrested when once it had developed itself, whereas the administration of quinine would cure malaria at any time. Professor Löffler drew attention to the circumstance that carcinoma has become more prevalent since the decrease of tuberculosis. The increase of cancer also coincided with the decrease of malaria in Europe and it might be asked whether there was any connexion between these facts. He therefore suggested that a collective investigation should be made in tropical countries in order to ascertain whether cancer was less frequent in malarial districts than in others.

#### *Russian Patients in Berlin.*

Like all the other great capitals of Europe Berlin is visited the whole year round by a large number of foreign patients who come to consult specialists. The great majority of the patients are from the east of Europe, and whereas 20 or 30 years ago Vienna was the city to which

people went for medical advice from the Eastern States of Europe, Vienna is now not so much in favour as Berlin, especially as far as Russian patients are concerned. Many of these patients have no knowledge of German or, indeed, of any other language than Russian. It often happens that they come to Berlin without having been advised by their ordinary medical attendants to do so, and that when here they do not lay out their time and money to the best advantage. Noticing this, a Russian medical man, Dr. Semjon Lipliawsky, some months ago established here an institution termed the "Russian Institution for Medical Consultations," the aim of which is not only to advise Russian patients and to inform them as to the specialists whom they should consult, but also to facilitate the work of the latter by furnishing them with full details of the history of the cases and other information which the patients from want of knowledge of German might be unable to give. In the laboratory of the institution the preliminary examination of urine, &c., is performed. The institution is not only in communication with the Berlin specialists, but also with the medical attendants of the patients in Russia, the latter being made acquainted by the institution with the results of the consultations and the nature of the treatment prescribed. The institution also undertakes to supply such information and assistance as may be of use to Russian medical men who wish to stay here some time for post-graduate study. It obviously meets a want, as in its first four months of existence it was resorted to by no less than 357 Russian patients. The number of patients coming from other countries must be very considerable, judging from the fact of the existence of an institution which serves as an interpreting and information agency for the patients of a single nationality. When it is considered that only a portion of the Russian patients use the institution and that those of other foreign nationalities are not concerned, it may be concluded from the above that the importance of Berlin as an international medical centre must be very great.

Nov. 26th.

## CANADA.

(FROM OUR OWN CORRESPONDENT.)

#### *Canadian Medical Graduates and the Imperial Army.*

DESPATCHES have been received by cable by the Militia Department at Ottawa announcing that a Canadian medical graduate has been refused permission to serve on the British medical staff in South Africa. The action of the home authorities in this connexion has raised the question amongst military medical men as to what has become of the promised Imperial legislation which it was thought would have been introduced into the House of Commons and which would have permitted duly qualified and certificated graduates of colonial medical colleges to enter the Imperial service. The announcement of this legislation was made from the Canadian Militia Department some months ago.

#### *Raising the Standards at McGill University.*

The Faculty of Applied Science have taken the preliminary step in what will probably be an advance in the standard of the examinations all round. The gist of this advance is seen in the following notice to the students which was recently posted on the college boards: "It has been decided by the faculty that the number of marks for pass-standing in any subject shall be 40 per cent.; for second-class honours, 60 per cent.; and for first-class honours, 80 per cent." There are some 300 students in the Faculty of Applied Science, and the change is not by any means a popular one with them. In the Faculty of Medicine it is altogether likely that the standard will soon be advanced from four years of nine months each to a course of five years of nine months each. It is said to be the desire of the General Board of McGill University to place the examinations on an even footing with those of the London, the Edinburgh, and the Dublin Universities.

#### *The Problems of Population.*

The Provincial Synod of the Anglican Church recently held a meeting at Montreal and a matter of very general interest was brought up and discussed. This was the report of the Committee on Vital Statistics which for the past three years has been working on three very important problems—viz., the birth-rate in the province of Ontario, infant mortality

(especially in the province of Quebec), and tuberculosis. The Provincial Synod has jurisdiction over the provinces of Ontario, Quebec, New Brunswick, Nova Scotia, and Prince Edward Island. The committee have found that complete statistics are available only for the two first-named provinces, the statistics for Nova Scotia being very brief, while apparently there are no records kept for New Brunswick and Prince Edward Island. The following shows the birth-rate per 1000 population in Ontario and Quebec for the years 1896, 1897, 1898, and 1899 respectively—20.7, 20.9, 20.4, and 19.4, or a rate of 38.57, 35.91, 35.70, and 33.46. Ontario has an abnormally low birth-rate, lower than that of any European country, but not lower than that of some of the adjoining American States, notably Michigan and New Hampshire, the former being 18 in 1898 and the latter 19 in 1895. In both Ontario and Quebec the birth-rate is ever decreasing. One of the main causes assigned for this continued decrease is "the use of preventives, information as to which is spread far and wide by advertisements in the public press and otherwise." The committee recommend that the clergy should discuss the matter freely from their pulpits. Quebec has an appalling infant mortality; an average of about 14,500 children under five years of age die annually, nearly one-half of all the deaths in the province. As to tuberculosis, the percentage in 1899 in Ontario and Quebec is respectively as follows: 11.9 for Ontario and 8.7 for Quebec, of all deaths.

#### *Licence to Practice Medicine in the Yukon Territory.*

An ordinance respecting the profession of medicine and surgery, known as "The Yukon Medical Ordinance," was assented to on Sept. 24th, 1898. By it the medical profession is made a body corporate under the name of "The College of Physicians and Surgeons of the Yukon Territory." The council consists of five members. Every practitioner entitled to vote may vote for the five members during an election to the council. Section (a) of Article 33 of the ordinance refers to British practitioners and says: "Any person who at the time of his application shall furnish proof that his name is on the Register in Great Britain and Ireland" the council shall admit him upon the Register. Each licentiate must pay an annual fee of not less than 20 dollars and not more than 50 dollars at the option of the council. Article 55 says: "The fee for registration under any clause of this ordinance is 100 dollars." There are at the present time 40 names on the Register, although all are not now practising in the Yukon Territory.

Nov. 11th.

## NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

#### *United States Marine Hospital Service.*

THIS is a bureau under the Treasury Department, conducted by a surgeon-general. The hospitals under its direction are maintained by a tax imposed on tonnage. The expense of national quarantines is paid by appropriations of Congress and the cost of suppressing epidemics is met by a special fund. The Marine Hospital Service at present consists of a surgeon-general, 29 surgeons, 21 past-assistant surgeons, and 56 assistant surgeons—a total of 107 commissioned officers who are appointed by the President by and with the consent of the Senate. A candidate for admission into the service must pass a competitive examination before a board composed of officers of the service. Officers of the service are not appointed to any special station, but are subject to change of station at any time in compliance with orders. There are 129 acting assistant surgeons, appointed by the Secretary of the Treasury, for duty at ports where the amount of work does not justify the detail of a commissioned officer. There is a corps of 45 pharmacists in the service, known officially as stewards. There are 22 United States marine hospitals, together with 115 additional relief stations, in the various ports of the country. These hospitals are on both the Atlantic and Pacific seaboard, on the Gulf of Mexico, on the chain of Great Lakes, and at many of the larger river cities. A new hospital has just been opened in Alaska and relief stations have been established at San Juan and Ponce in Puerto Rico, and at Honolulu. The reports of the service show that more than 50,000 sick and disabled seamen of the merchant marine are treated annually. A sanatorium for consumptive seamen has been established at Fort Stanton in

New Mexico, in the heart of a dry and equable climate. Up to April 1st there were 144 patients on its records, of whom it is stated that 17 have recovered, 33 have improved, and 17 have died. In order to assist the home quarantines an inspection and information service is maintained at some of the foreign ports, especially those where epidemics exist or where infectious diseases are apt to prevail. It is the duty of the officers of the service stationed at these points to issue the bills of health to vessels leaving for the United States. For instance, sanitary inspectors are stationed at Hong-Kong, Yokohama, and at Central and South American ports, to keep plague, fever, and cholera from vessels bound for the United States. The service also has insular quarantines and inter-State quarantines under its supervision. The prevention of the spread of yellow fever has been one of the chief works of the service since Congress passed the inter-State law. All immigrants coming into this country must be examined by a surgeon of the Marine Hospital Service whose duty it is to detect those suffering from a dangerous, contagious, or loathsome disease. All such patients are either sent back to their homes or are kept isolated in a separate hospital until they are cured and free from the danger of conveying infection. The hygienic laboratory of the service is one of its most valuable and important features. It is in the charge of a director, who is an officer of the service and has several assistants. The investigations of this branch of the service consist of studies of the cause and methods of spread of infectious diseases, of the value and strength of disinfectants, of the value of vaccines, of the method of manufacture of antitoxic serums, the pollution of water-supplies, &c. During the last year the hygienic laboratory made and distributed over 100,000 doses of "vaccine" against bubonic plague, which were distributed to the Philippines, Honolulu, and San Francisco. Bulletins are issued from time to time giving the results of the work done in the laboratory.

#### *The Army Canteen Question.*

The abolition of the army canteen, which was accomplished by an Act of Congress at the earnest solicitation of a band of enthusiastic temperance reformers, has since that event been the cause of much and heated controversy. The Army Medical Corps of the United States appear almost to a man to be in favour of the restoration of the canteen system. Major Louis Seaman, surgeon in the United States army, at the annual meeting of the army surgeons and again at the meeting of the American Medical Association, pointed out in the plainest possible language the evil that had already been done to the health and morals of the soldier by the abolition of the canteen, and declared that re-introduction of the system was called for at once. At the meeting of the American Public Health Association held recently at Buffalo the canteen question was made the subject of discussion and the opinions of Major Seaman were re-affirmed. Captain Edward L. Munson read a paper in which he demonstrated by numerous statistics that since the canteen was first introduced the health of the United States army had been much better than when the system was not in force. Assistant-Surgeon-General Charles Greenleaf, late chief surgeon of the United States army in the Philippines, strongly confirmed Captain Munson's statements, and Captain Gihon, late chief medical director of the United States navy, spoke in a similar strain. The meeting was so convinced of the benefits of the canteen system that almost without a dissentient voice a motion was passed condemning the action of Congress in abolishing the canteen and recommending its early restoration.

#### *New York City Board of Health and Malaria.*

The Board of Health of New York City has recently taken action with regard to the prevention of malaria within its limits and has passed the following resolutions:—

Whereas recent investigations have shown that malarial fever is an infectious disease and can be largely prevented by the adoption of simple precautions, and whereas it is the desire of the Department of Health to prevent the extension of malarial fever which now exists in some of the boroughs to the other boroughs, and to restrict its prevalence in those boroughs, therefore be it resolved—

That all public institutions, hospitals, homes, asylums, &c., be required to report all cases of malarial fever which come under their observation and give information as to whether the attack is a primary infection or a relapse, and the address where the disease was probably contracted;

That all physicians of New York be requested to furnish similar information in regard to patients suffering from malarial fever under their care;

That the circulars of information of the Department regarding "the causation and prevention of malarial fever" be mailed to the addresses

in which malarial infection has apparently been contracted and also to the addresses from which the cases are reported, when these are different;

That postal cards for furnishing the required data be prepared and forwarded to institutions and physicians for reporting cases of malaria which come under their observation, as is done in other infectious diseases.

#### *Milk-supply of New York.*

The Commission appointed to look into the milk-supply of New York City has recently ended its labours and handed in its report. From this the fact is gathered that the milk retailed in New York is not so good as it might be. The standard prescribed by the Commission is that the acidity must not exceed 3 per cent., that the milk must not contain over 30,000 bacterial germs per cubic centimetre, and that the butter-fat must reach 3.5 per cent. None of the milk examined by the Commission reached this standard. In 20 samples examined on Nov. 1st the lowest number of germs was 90,000 and the highest was 2,800,000. On June 29th, with the thermometer at 90° F., in 20 samples examined the lowest number of germs was 240,000 and the highest was 516,000,000.

Nov. 18th.

## AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

#### *The Treatment of Consumption.*

ONE effect of the International Congress on Tuberculosis has been to arouse Australian authorities to a greater activity. In Sydney the medical staffs of the Prince Alfred, Sydney, and St. Vincent's Hospitals met to discuss the measures that should be taken for more effectively dealing with tuberculosis. It was decided to ask the Mayor of Sydney to convene a public meeting to consider the subject. The meeting was held and the Mayor (Sir James Graham, M.D. Edin.) said it had been convened with the object of enlisting public sympathy in regard to a matter in which Sydney was certainly behindhand. In Sydney at present when a consumptive patient sought admission to the metropolitan hospitals he was sent away, as it would not be right to introduce such cases and place them in close proximity to other patients under treatment for other maladies. The only places he could go to were the Queen Victoria Consumptive Home at Thirlmere, which had a very limited number of beds and limited finances, or to the Liverpool Benevolent Asylum. If not taken in at either of these institutions he went back to his little home to infect others in the house and to sit in the parks and expectorate on the grass multitudes of parasites to be blown about and infect others. It was a clear duty of the State to make provision for the exclusive treatment of those who were a source of danger to themselves and all around them. Dr. Sydney Jamieson moved:

That since consumption is an infectious disease it is the duty of the State to adopt reasonable and effective measures for the prevention of infection.

The motion was carried unanimously. Dr. Sydney Jones moved:—

That a special hospital for advanced cases of consumption, which are the worst sources of infection, is an indispensable measure for preventing the spread of the disease.

In speaking to the motion he stated that 16,000 consumptives were moving about Australia annually. Dr. Nash, M.L.C., in seconding the motion, which was carried, said that last year 1067 persons died from consumption in New South Wales, and of these 595 were born in the State and only 6 per cent. had lately come from abroad. It was then resolved that a deputation should wait on the Premier to urge the importance of establishing a hospital for the treatment of advanced cases of consumption in the interests of public health and also that an association should be formed in Sydney for the prevention of consumption. Dr. G. H. O'Neill was appointed secretary of the new association and a number of members were enrolled at the annual meeting of the Queen Victoria Homes for Consumption Fund; the recommendation of the committee to purchase a property at Wentworth Falls for the purposes of a sanatorium and to ask the Government to donate a piece of land at Katoomba for the same purpose was endorsed. The annual report stated that the work had been limited to healing amenable cases of early consumption at Thirlmere Home which had 40 beds. During the year 112 cases were admitted and 104

were discharged. The average cost per bed per annum was £35. A large number of those seeking admission had to be refused as being too advanced. Only patients who could be expected to do some light work were admitted. In the Legislative Council of New South Wales Dr. Nash moved recently:—

That in the opinion of this House the housing of consumptives by the State is not in a satisfactory condition and that it is desirable, in the interests of the public health and for the benefit of the sufferers, that some more adequate provision be made for their accommodation and treatment.

As a result of two visits paid to the State Benevolent Asylum at Liverpool it appeared to him that it was necessary to alter existing conditions. Over 100 consumptives were housed at the Liverpool Asylum. In the largest wards there were 30 consumptives—the beds being four deep. In the same building were 600 or 700 old people suffering from senile decay, and they should not be subjected to such possibilities of infection. Five years ago the Public Works Committee reported on the erection of a destitutes' home at Rookwood, and evidence was taken in regard to the inadequate provisions for housing consumptives. The medical advisers of the Government had on several occasions recommended the removal of all patients from Liverpool Asylum and the committee recommended the same course. Dr. MacLaurin supported Dr. Nash's statements and the motion was carried. In Melbourne also action is being taken to consider the best means of checking the spread of consumption. Over a year ago a committee was appointed by the various medical societies to deal with the subject, but until recently nothing was done. Now, however, the committee has convened a conference of representatives of various charitable organisations, friendly societies, municipal councils, and religious associations, which has decided "that the time has come for founding an association for the prevention and cure of tuberculosis on the lines of the National Association in England," and arrangements were made for holding a public meeting to form the proposed association.

#### *Outbreak of Cerebro-Spinal Meningitis.*

An extensive epidemic of cerebro-spinal meningitis has occurred at Port Pirie in South Australia. It is highly infective and fatal in character. The schools have been closed and people are leaving the town with their children in large numbers.

#### *Vaccination in New South Wales.*

A report recently presented to the Legislative Assembly in New South Wales showed that the number of births registered during the year 1900 was 37,146. The number of persons vaccinated was 921, of which vaccinations 908 were successful. Of the successful cases 349 were persons above the age of 10 years. Dr. F. Tidswell, of the Public Health Department, who supplied the report, said: "It will be seen that very few of the children born during the year were vaccinated, and a glance at the percentage for past years will show that very little attention is paid to this matter. We are practically an unvaccinated community."

#### *Hospital Sunday Fund, Melbourne.*

The twenty-eighth annual meeting of the Hospital Sunday Fund was held recently at the Melbourne Town Hall. The committee reported that the amount realised by the appeal last year had been £6097, exceeding that for the previous year by £50. Of the total amount available £5248 5s. 2d. had been distributed on the basis of expenditure amongst the following institutions: Melbourne Hospital, £1301 11s. 2d.; Alfred Hospital, £542 2s. 3d.; Children's Hospital, £735 10s. 5d.; Women's Hospital, £606 10s. 1d.; Benevolent Asylum, £425 16s. 11d.; St. Vincent's Hospital, £385 17s.; Austin Hospital, £466 9s. 6d.; Homœopathic Hospital, £292 18s. 7d.; Eye and Ear Hospital, £284 1s. 7d.; Emigrants' Aid Society, £127 9s. 4d.; and Melbourne District Nursing Society, £79 18s. 4d. A further sum of £470 had been allocated in special votes as follows: Richmond Dispensary, £35; Convalescent Home for Women, £125; Convalescent Home for Men, £125; Victorian Sanatorium for Consumptives, £110; Queen Victoria Hospital for Women, £75. The new system of distribution, based upon the expenditure instead of the revenue of the participating charities, had worked out to the entire approval of the authorities of the various institutions.

#### *Rival Nursing Associations.*

As previously stated, the trained nurses in Victoria have

formed an association and a member of it was appointed matron of the Albany Hospital, New South Wales. The committee of the hospital were therefore notified that as the matron was not a member of the New South Wales Association of Trained Nurses the Government subsidy to the hospital would be withheld, and that none of the probationers under the matron would be eligible for employment in any other State hospitals. The difficulty was solved by the matron, who was thoroughly qualified for the post, resigning. Dr. Manning, president of the New South Wales Association, which arrogates to itself the title of Australasian and refuses reciprocity to the Victorian Association, has written to the press explaining that the question of reciprocity is under consideration by his council and that the difficulty was created by the hasty resignation of the matron from the New South Wales Association, of which she had been a member.

#### *Fresh-Air League.*

The tenth annual report of the Sydney Fresh-Air League stated that the past season had been most satisfactory. 110 children, 101 women, and 18 men had received the benefits of the league. Farm and cottage homes were now fully established in various suitable districts. Over £400 had been expended at a cost for working expenses of £24, owing to all the work being voluntarily performed.

Oct. 15th.

## Obituary.

HENRY SUTHERLAND, M.D., M.A. OXON., B.A. CANTAB.,  
M.R.C.P. LOND.

DR. HENRY SUTHERLAND, whose death, from heart disease after four months of suffering most patiently borne, occurred on Nov. 19th, came of a distinctly medical stock. He was the second of the six sons of Alexander John Sutherland, M.D. Oxon., F.R.C.P. Lond., F.R.S., who practised at Richmond Terrace, Whitehall, and a grandson of Alexander Robert Sutherland, M.D. Edin., F.R.S., who was in practice in Parliament-street, Westminster. His great grandfather, Alexander Sutherland, also practised medicine at Great Queen-street, Westminster. Alexander Robert, Alexander John, and Henry Sutherland were all specialists in psychology, Dr. A. R. Sutherland having, in the early part of the last century, purchased a private asylum at Fisher House, Islington, and subsequently having originated two asylums for female and male patients at Otto House, Hammersmith, and Blacklands House, Chelsea, respectively.

Henry Sutherland, who was born on Dec. 28th, 1841, enjoyed the rather unusual distinction of having been educated at two public schools, Westminster and Radley, and at two universities, Oxford (Christchurch) and Cambridge (Downing). He received his medical education at St. George's Hospital, London, and Addenbrooke's Hospital, Cambridge. He took the M.A. and the M.B. Oxon. degrees in 1869, proceeding to the M.D. in 1872. He became B.A. Cantab. in 1867, and M.R.C.P. Lond. in 1870. He studied insanity at Bethlehem Hospital and at the West Riding County Lunatic Asylum at Wakefield, where he was resident assistant medical officer under Dr. (now Sir) James Crichton Browne. After leaving Wakefield he returned to London and commenced practice as an alienist, and in 1872 was appointed lecturer on psychological medicine to the Westminster Hospital, a position which he held for some 15 years. He had had great experience in carrying out the treatment of forcible feeding of insane patients and invented a tube and a gag for use under such circumstances.

In addition to his purely psychological work he was at the time of his death, and had been for more than 30 years, physician to the St. George's, Hanover-square, Dispensary. He was a Fellow of the Royal Medical and Chirurgical, Obstetric, and Medical Societies and a Member of the Medico-Psychological Association, and of the Pathological, Clinical, Neurological, and West London Medico-Chirurgical Societies. He was the author of a "Directory of Justices in Lunacy" and contributed the articles on "Feeding (Forcible) of the Insane" and "Menstruation and Insanity" in Tuke's "Dictionary of Psychological Medicine."

He also published various papers in the West-Riding Asylum Medical Reports, the *Journal of Mental Science*, and in the columns of THE LANCET and other medical journals. Both his grandfather and his father were associated with the late Dr. Conolly and the late Dr. Monro in their successful efforts to secure more humane treatment and better conditions of existence for the insane, and he himself was happily brought up in the traditions of that excellent school.

Some years ago Henry Sutherland was well known as a most competent fencer, having won the "prize foils" at both Oxford and Cambridge; and he frequently gave evidence in later days of his skill in fencing at the assaults-at-arms of the London Athletic Club. It may also be mentioned that in his university days he ran third for the mile race at Christchurch, Oxford, and also rowed in the Downing eight at Cambridge. He was a well-known and enthusiastic Freemason, having been initiated into Masonry 40 years ago, whilst an undergraduate, in the Apollo University Lodge, Oxford. From that time forward he never ceased to take a deep interest in Freemasonry. Indeed, he was at the time of his death Worshipful Master of the Old Westminsters' Lodge, a lodge composed of brethren who, like himself, had been educated at Westminster School. He was one of the founders of this Lodge and had, previously to his election as Master, continuously served the Lodge from its consecration in 1888, first as steward and subsequently as secretary. He was also at the time of his death secretary of the Grand Stewards' Lodge, of which he was a Past Master, and he had passed through the chair of the Shakespeare Lodge, of the White Horse of Kent Lodge, and of other Lodges. On the occasion of the celebration of the twenty-fifth anniversary of the appointment of the Prince of Wales (now the King) as M.W. Grand Master he was one of the 25 brethren who specially received the honour of Grand Office, he being appointed a Past Grand Deacon. The qualities of Henry Sutherland's abilities were, perhaps, solid rather than brilliant. He was a man who, undertaking anything, never looked back, but went steadily through till he had accomplished his work. Industrious, thorough going, and trustworthy, he was one of those practitioners who quietly and unobtrusively do good service to, and maintain the honour and dignity of, the profession. Generous and kind-hearted, he was highly esteemed by his colleagues and his patients, and his death at a comparatively early age (he had not quite completed his sixtieth year) will be keenly and long felt by his many friends. Dr. Sutherland leaves a widow to mourn her loss.

The funeral took place on Nov. 22nd at Brompton Cemetery, amongst those attending being Dr. G. Fielding Blandford, Dr. T. Seymour Tuke, Mr. T. Wakley, Jun., and other medical friends. Wreaths were sent by his Masonic brethren of the Grand Stewards' and Old Westminsters' Lodges, Brother W. E. M. Tomlinson, M.P., who was the first Master of the latter Lodge, Brother J. Barnes Liberty, the W.M. elect, and the Treasurer being present to pay a last tribute of affection and respect to their departed Worshipful Master.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Francisco de Castro, Professor of Clinical Medicine in Rio de Janeiro.—Dr. de Rossi, Professor of Laryngology in the University of Rome.—Dr. von Liebermeister, Professor of Clinical Medicine in Tubingen.

LIBELS ON A MEDICAL MAN.—At the Devon Assizes held on Nov. 20th, before Mr. Justice Bruce, Clara Cooper pleaded guilty to publishing defamatory libels concerning Dr. C. N. Lovely, a medical practitioner of Dawlish. The libels, contained in 58 letters, were absolutely unfit for publication. The London and Counties Medical Protection Society prosecuted and their counsel stated that they had always felt that the state of the prisoner's mind could not be normal and they had in consequence had her examined twice by a medical practitioner. This gentleman formed the opinion that, although at present the prisoner was fit to plead, at the time of the publication of the libels she was not of sound mind. The judge sentenced her to six months' imprisonment in the second division, intimating that if her mind was affected the Prison Commissioners would deal with the case.

## THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE seventy-second session of the General Council of Medical Education and Registration was opened on Tuesday, Nov. 26th, in the hall of the Council, the President, Sir William Turner, being in the chair. Only two members of the Council were absent at the opening of the session—Sir William Gairdner and Mr. W. H. Power. We regret to learn that Sir William Gairdner will be unable, owing to recent illness, to attend the present session.

The present Executive Committee of the Council consists of Sir William Turner, Dr. Atthill, Mr. Bryant, Dr. Glover, Dr. MacAlister, Sir Christopher Nixon, Dr. Pye-Smith, and Dr. Heron Watson. A meeting of the Executive Committee was held on Monday, November 25th, at which among other business Mr. H. E. Allen, the registrar, read a report of considerable interest concerning the Council's advertisements. He accounted for the amount spent in this way, which he put at slightly over £100 per annum on an average during the last four years, by saying that there had been inaccuracies in the Medical Register both as to addresses and unreported deaths owing to no circular letters under Section 14 having been issued to all practitioners for some years, so that it was desirable to call general attention by advertisement to the necessity that existed for medical men to send in notices of changes of address to the Registrar. Again, when important resolutions were adopted by the Council—in 1897 with regard to the employment of unqualified assistants, in 1898 with regard to giving assistance to unregistered dentists, and in 1899 with regard to employment by medical aid associations—it was desirable that these pronouncements of the Council should be made publicly known. He considered, however, that the necessity for these advertisements had now largely ceased to exist. During the three years 1898, 1899, and 1900 circular letters under Section 14 were sent to every practitioner within the province of the English Branch Registrar, and the Branch Registrars in Scotland and Ireland have taken similar effective steps to procure correct addresses. The important resolutions of the Council had also, he said, been so far as possible circulated with these letters, while, with the President's sanction, advantage is to be taken of the elections this year of Direct Representatives to circulate the resolutions among all practitioners resident in England or Scotland. A similar opportunity will present itself next year as far as England is concerned when Mr. Horsley's tenure of office will expire, Mr. Allen promised that in 1903 the issue of letters under Section 14 would be resumed. We are glad to learn from this report that the systematic revision and correction of the Medical Register which we have more than once pointed out in these columns must be undertaken is to a great extent accomplished; and we are particularly glad to see that the Registrar does not propose to rest on his oars, but intends to take up again in 1903 his valuable and arduous task.

Sir William Turner's address in opening the proceedings of the Council was a brief and practical one. The medical profession will read with approval his assertion of the paramount importance of the Council not losing its hold on the standard of general education to be required from students of medicine. Many of us, like Sir William Turner, can recollect the day when some of the leading examining bodies gave their medical diplomas to candidates whose general education had never been tested, or tested only in a very

meagre way; and some of the trials of the medical profession have resulted. We feel sure that the Council will serve the best interests of the profession by maintaining as high a standard of general education among the students as may be practicable.

Sir William Turner's graceful words of regret at the resignation of Dr. Glover from the Council upon which he has sat for 15 years as a Direct Representative were received by the Council in a manner that must have been gratifying to Dr. Glover. There was no doubt that the whole meeting was in accord with their President's view as to the character and value of the work done by Dr. Glover during his long period of office.

Certain amendments of the Standing Orders of the Council with regard to penal removals from the Medical Register were agreed upon *in camera* on Tuesday. Everyone knows that the penal powers of the Council have been considerably hampered by two facts: (1) that some of the offences upon which they have to adjudicate are termed "infamous conduct in a professional respect" when "infamous" is not a fair adjective to apply; and (2) that removal from the Register is often too heavy a punishment for offences that cannot be punished in any other way. The amendments have to some extent been dictated by the Council's recognition of this position. Formerly, if the Penal Committee reported a *prima facie* case against a practitioner a motion was put to the Council that the incriminated person had been guilty of "infamous conduct in a professional respect." The Council might resolve to that effect, and then, feeling the cruelty of doing otherwise, omit to order the name to be removed from the Register—a proceeding that placed the Council in a false position. Under the new amendments the Council first decide if they will pronounce judgment on the case at all or will delay consideration of it. If the members decide to deal with the case they vote to a motion "that the facts alleged against — have been proved." If this motion is carried the Council can then decide whether the name of the practitioner shall be erased from the Register for infamous conduct in a professional respect.

The seven Scotch practitioners who appeared before the Council at the instance of the Pharmaceutical Society of Great Britain for employing assistants in the sale of poisons, who were not legally qualified so to act, signified their regret for the commission of a professional offence. A pronouncement is promised by Sir William Turner, and awaited by the whole profession, upon this very important and delicate matter.

### TUESDAY, NOV. 26TH.

THE seventy-second session of the General Council of Medical Education and Registration was opened to-day in the Hall of the Council, Oxford-street, London. Sir WILLIAM TURNER, K.C.B., President of the Council, occupied the chair, and all the other members were present except Sir William Gairdner and Mr. W. H. Power, both of whom sent messages to the President saying that they were unable to attend on account of illness.

#### The President's Address.

THE PRESIDENT opened the proceedings as usual with an address.

#### The Election of Direct Representatives.

THE PRESIDENT commenced by referring to the forthcoming election rendered necessary by the compulsory retirement of two of the English Direct Representatives and of the Scottish Direct Representative. He continued:—

Of the three Direct Representatives of the profession whose five years' period of office is about to expire Dr. Bruce and Mr. George Brown again seek the suffrages of their constituents. Dr. Glover, on the other hand, acting under

medical advice, has decided not to offer himself for re-election. The Council will join with me in expressing regret at the cause of Dr. Glover's retirement and in wishing him a speedy restoration to health. We may feel confident that his interest in the public life and work of the profession, in which for so many years he has taken an active part, will continue, and that, although no longer sharing in our discussions, he will be keenly alive to, and possibly may be a critic of, our proceedings. Personally, I should like to state that during the period of 15 years in which we have sat together on this Council, although we have often differed on questions of procedure and policy, I have received from him unflinching courtesy and consideration.

With reference to Malta University the President stated that two applications from Maltese graduates for registration on the Colonial List had been received, while with regard to Italy application for registration had been received from five graduates of Italian universities. After referring to the ill-fated Penal Powers Bill, introduced into the House of Commons by Sir Richard Jebb, the President proceeded:—

#### *Examinations.*

The inspection of Final Examinations by our inspector, Sir George Duffey, acting along with Mr. Bryant at the University of Dublin, with Dr. McVail at the Royal University of Ireland, and with Dr. Payne at the conjoint examinations of the three medical and surgical corporations in Scotland, has now been completed. In conformity with the requirements of the Medical Act, 1886, and the Standing Orders the reports prepared by the inspector and the member of Council associated with him as visitor have been forwarded to the bodies whose final examinations have been inspected for their observations and remarks. These, I understand, have not yet been received in any instance, so that the reports are not ready for distribution amongst members of the Council, nor can the Examination Committee report respecting them. Dr. Herringham, the Council's inspector specially appointed to be present at the examinations of the Apothecaries' Hall, Dublin, has expressed his willingness to act for another year. As the whole of the medical and surgical corporations in Ireland will have their final examinations inspected next year by the general inspector and the Council's visitor the Council should consider whether the special inspector should be required to attend the Final Examination of the Apothecaries' Hall on the occasion when the general inspector is present. Should his attendance not be considered necessary a motion to this effect must be submitted to the Council in the present session.

#### *The Sale of Drugs by Medical Practitioners.*

The Council will have before them on Wednesday seven registered practitioners, residing in the West of Scotland, who are charged with habitually employing for the sale of scheduled poisons persons not qualified to act as chemists or pharmaceutical assistants, and thereby causing such persons to commit breaches of the Pharmacy Act. The Council will recollect that a year ago a case of this kind was for the first time brought under their notice, and that the practitioner in question was admonished; the gravity of the charge was pointed out to him, and the case was adjourned to the June session of the present year. I was then authorised to say that the offence was grave and fraught with danger to the public, but as the case was the first to be brought before the Council, and in view of the assurance given by the practitioner that he would discontinue this conduct, the Council decided to proceed no further with the charge. As regards the practitioners whose cases are now to be investigated it is due to them to state that the offences alleged against them were committed before the Council had pronounced its judgment on the case above alluded to, so that they could not have been informed at the time how serious a view the Council took of an offence of this nature. It will be for the Council to consider whether, after these cases have been disposed of, the time has not arrived to issue a definite declaration on this subject for the information of the profession generally. Another penal case to be brought before you bears on the question of the employment of a registered medical practitioner by a medical aid association which, it is alleged, systematically practises carvassing for the purpose of procuring patients.

#### *General Matters.*

The Pharmacopœia Committee will report on the steps taken to secure the adoption of the Addendum by India and

the Colonies, and on a proposal by the Government of India to purchase 3500 copies, subject to an alteration in the formulae of a few preparations. The Public Health Committee, the Examination Committee, and doubtless some other committees will report on matters appertaining to their respective departments. Of the subjects to be reported on by the Executive Committee I may especially refer to proposed modifications in the Standing Orders which govern the judicial procedure and decisions of the Council, and the recommendation for the approval of the Council of a list of scientific institutions at which medical study may be commenced. The Education Committee have had under consideration several important subjects. We may look for a report on the steps which they have taken in order to carry out the recommendation of the Council that the standard of preliminary examination required by some of the examining authorities should be raised. The Council has asked the Education Committee to consider and report on the questions involved in motions proposed at the June meeting by Dr. Bruce and Mr. Ball, in which it was suggested that, in addition to the examination on the subjects of general education, on which the existing arrangements for the registration of students of medicine are based, a second or scientific registration of students who have passed in chemistry, physics, and biology should be established by the Council, and that the period of medical study should be four years after the second registration. In the discussion of this new question I hope that both the Education Committee and the Council will bear in mind the paramount importance of the Council not losing its hold on the standard of general education to be required from students of medicine. I can recollect the day when some of the leading examining bodies in our profession gave their diplomas to candidates whose general education had never been tested, and others did so when the test was of the most meagre character.

The recommendation that all intending students of medicine should pass an examination on subjects of general education, and the consequent establishment of a Students' Register, formed an important epoch in the history of the Council and in the educational progress of the profession. Although no special statutory powers had been conferred on the Council to require the registration of students all the examining authorities were consenting parties, and agreed not to admit candidates for professional examinations unless their names had been previously placed on the Students' Register. Acting along with the qualifying bodies, the Council has been able to require a standard of general education from entrants to our profession which, in so far as can be provided by an examination test, secures that they possess a school education sufficient to enable them with intelligence to engage in professional study. The period of professional education has also been extended to five years, and an influence for good has been exercised on the training of the younger generation of practitioners. I regard with apprehension a movement which, by the withdrawal of one or more of the qualifying bodies from an agreement in which all had concurred, would destroy unity of action in the matter of students' registration, and would nullify the influence of the Council.

In conclusion, I would remind the Council that on April 5th, 1898, I was elected to the honourable position of your President. No limitation or condition is expressed in the resolution to which you arrived, but it appears to me that I ought to regard the resolution as expressive of the intention of the Council that I should be elected for the unexpired period of my then tenure of office as the representative of the University of Edinburgh on the Council, and not for the full period of five years contemplated by the Act of 1886. As the five years for which I was appointed by the University in 1896 expires on Dec. 18th, and as the Medical Act, 1886, requires the President to be a member of the Council, my period of office as President should, in my judgment, although the University has again chosen me as its representative for another period, terminate on that day. As it would be highly inconvenient for the Council to meet on Dec. 18th for the special purpose of choosing a President, I intend to place my resignation in your hands at the present meeting of the Council, so that before you separate you may proceed to the election of a President for another period.

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, the Council thanked the President for his address and asked him to allow it to be printed in the minutes.

*The Service Examinations.*

Mr. ALLEN, Registrar, presented a table showing the results of the competition held on August 5th, 1901, for commissions in the medical staff of the Royal Navy. Of the six candidates who competed four were passed for vacancies and two were rejected, one of the latter being found deficient in medicine and the other in medicine, anatomy and physiology, and chemistry and pharmacy.

Dr. HERON WATSON, seconded by Sir CHRISTOPHER NIXON, moved that the thanks of the Council be conveyed to the Director-General of the Medical Department of the Royal Navy for the information supplied.

Mr. HORSLEY asked how it came about that there was no return with reference to the army.

Mr. BROWN put the same question with regard to the Indian Medical Service.

Dr. NORMAN MOORE said that this autumn there had been no examination for the army though there had been one for the Indian Medical Service during the month of August. A letter was written to the examiners saying that in view of what was being done it was not proposed to have an examination for the army this autumn.

On the motion of Mr. BROWN, seconded by Dr. BRUCE, it was agreed to ask for the usual information with regard to the Indian Medical Service examination.

The motion of Dr. HERON WATSON having been passed, the Council decided, on the motion of Dr. BRUCE, to refer the table with regard to the navy to the Examination Committee.

*Judicial Procedure and Decisions.*

The next business on the programme was the consideration of a report from the Executive Committee in regard to the Standing Orders governing the judicial procedure and decisions of the Council.

The PRESIDENT explained that the amendments suggested were essentially amendments in the form of the resolutions which had to be put from the chair to the Council when it sat *in camera* after hearing the evidence in penal cases. As these resolutions were put *in camera* it was for the Council now to decide whether the discussion of this report should be taken in open Council or *in camera*.

Dr. ATTHILL, seconded by Dr. FYE-SMITH, moved that it be taken *in camera*.

Dr. MCVAIL thought that the members of the profession who were deeply interested in this matter should have an opportunity of knowing how and why they arrived at a particular form of procedure. This was a matter affecting the Standing Orders of the Council, and on that ground he thought it should not be discussed *in camera*. The situation was of course different when the Council had a particular case before it.

Dr. MACALISTER said that it would be difficult to carry on the discussion without referring to cases which had been considered *in camera*.

Mr. HORSLEY took the view that it would be shorter and more useful not to refer to particular cases but to discuss the subject on academic lines.

Mr. BROWN said that there was a strong feeling outside against the increasing habit of the Council to go into *camera* when subjects of interest to the profession were discussed.

By a large majority the Council rejected the motion to discuss the report *in camera*.

The PRESIDENT said that he proposed to make a short introductory statement. It sometimes occurred to him that the executive power of the Penal Cases Committee was not quite understood by Members of the Council. The Standing Orders laid down that certain forms of procedure had to be gone through. Then they stated that if the committee resolved that the case ought to be withheld from the consideration of the Council the case should not proceed further and the Registrar should inform the applicant of the resolution of the committee. If, on the other hand, the committee resolved that the case was one in which an inquiry ought to be held, the Standing Orders laid down that the President should ask the solicitor to take steps for the institution of an inquiry and for having the case heard and determined by the Council. Now, the point he wished especially to call attention to was that the Penal Cases Committee only referred a case to the Council when it considered that there was a *prima facie* case. The committee acted somewhat after the manner of a grand jury and the whole testing of the evidence must lie with the Council itself and the decision must be come to by the

Council itself after it had heard the evidence. There were two classes of cases to be dealt with. There was the case of the practitioner convicted of a misdemeanour, or felony, or a crime or offence, and there was the case of one who was charged with infamous conduct in a professional respect, and in their Standing Orders they must draw a distinction between these two cases. In this distinction the Executive Committee proposed to make no change. The first motion it was customary to put from the chair was that the Council do proceed at once to pronounce its judgment on the case and no change was proposed in this connexion. In the next motion they proposed a material change. In the earlier years when cases of this kind were investigated it was customary to put to the Council that the accused person had been guilty of infamous conduct in a professional respect and the vote was taken upon that, and he had known instances in which a person had been adjudged guilty of infamous conduct in a professional respect where the Council did not instruct the registrar to erase his name from the Register. It was felt that the Council was placing itself in a false position and so a change was made in the motion. Nothing was said about infamous conduct; it was simply said that the charge made had been proved to the satisfaction of the Council. Then there was a motion that the Council do now adjudge the practitioner to have been guilty of infamous conduct in a professional respect and do direct the registrar to erase his name from the Register. They proposed that the Standing Order should be altered and that the question put from the chair should be, "That the facts alleged against — in the notice of inquiry have been proved to the satisfaction of the Council." This would be a motion simply as regards the accuracy of the facts and would not involve, as the present words did, that the conduct complained of had been infamous conduct in a professional respect. Several amendments consequent upon this were proposed in the report. For instance, it was proposed instead of saying that the further consideration of the charge proved be adjourned, to say that the further consideration of the facts proved be adjourned.

Dr. MCVAIL took exception to the proposed changes. It was a serious thing, he said, for a practitioner to be summoned before that Council. He knew cases where it had caused serious illness, and he held that a man should not be summoned upon anything which, if proved, was not infamous conduct in a professional respect.

Dr. MACALISTER, to put the discussion in order, moved that the Standing Orders be amended in the manner proposed by the Executive Committee in their report.

Dr. MCVAIL moved that the subject be sent back to the Committee for further consideration.

The PRESIDENT said that he was afraid that he had no choice but to ask the Council to sit *in camera*. If they were to go into this question of referring the matter back to the committee he must make a statement *in camera*.

The Council then sat *in camera* for nearly an hour.

On the readmission of the public the PRESIDENT announced that the Council had decided to amend the Standing Orders in the manner proposed by the Executive Committee in their report.

*The Registration of Colonial and Foreign Diplomats.*

The Council agreed to receive and enter on the minutes the following report by the Executive Committee, submitted in accordance with the subjoined resolution passed by the General Medical Council on May 18th, 1887:—

"That the Executive Committee be empowered to take the necessary steps for carrying into effect the sections of the Medical Act (1886) relating to the registration of the diplomas of colonial and foreign practitioners, and that the committee report to the Council from time to time their proceedings thereon."

*(a) IN REGARD TO MALTA.*

The Executive Committee report that Part II. of the Medical Act (1886) has been made to apply to Malta, by an Order in Council made on Sept. 26th, 1901, that the amendment of Article 5 of the local ordinance, conditional on which the assent of the Council was on June 5th, 1901, given to the extension, has been duly made; that they have accordingly considered the application made on behalf of the University of Malta for the recognition of its degrees and their registration in the Colonial list of the Medical Register under Section 13 of the Medical Act (1886); and that they have adopted the following resolution:—

Resolved: "That the requirements for the medical degrees of the University of Malta being such as in the opinion of the committee furnish a sufficient guarantee of the possession of the requisite knowledge and skill for the efficient practice of medicine, surgery, and midwifery, these degrees be recognised as entitling to registration in the Colonial List."

## (b) IN REGARD TO ITALY.

The Executive Committee report that Part II. of the Medical Act, 1886, having been applied to Italy by an order in Council dated March 9th, 1901, application was made to the Privy Council, at the suggestion of the Education Committee, requesting that the Council might be supplied through the proper official channels with such information as to the existing regulations for medical qualifications in Italy as would enable the Council to fulfil its statutory duties under Section 13 (1) of the Medical Act, 1886.

This information having been supplied by the Privy Council, the Committee have carefully examined the Royal Decree of Oct. 8th, 1876, which applies to all Italian universities, and, having satisfied themselves that the regulations provide a sufficient guarantee of the possession, by doctors of medicine and surgery of these universities, of the requisite knowledge and skill for the efficient practice of medicine, surgery, and midwifery, have resolved:—

"(1) That the degrees of Doctor of Medicine and Surgery of all Italian universities should be recognised as entitling to registration in the Foreign List of the Medical Register.

(2) That with reference to applications from Italian medical graduates for registration in the Foreign List, the registrar be instructed to require the applicant to produce:—

(a) Satisfactory evidence of identity;  
(b) Satisfactory evidence of good character;  
(c) Satisfactory evidence that he is by the law of Italy entitled to practise medicine, surgery, and midwifery in that country;  
(d) The diploma of doctor of medicine and surgery of an Italian University;

(e) Satisfactory evidence in relation to the circumstances (1) (2) (3) set forth in Section 12 of the Medical Act, 1886."

The Council then adjourned.

## WEDNESDAY, NOV. 27TH.

The Council resumed work to-day Sir WILLIAM TURNER, President, being in the chair.

*Scotch Practitioners and the Sale of Poisons.*

The first business was the consideration of the cases of Alexander Stewart of Uphall, registered as Lic. Fac. Phys. Surg. Glasg. 1878, M.B., Mast. Surg. 1880, Univ. Glasg.; Simon Prince Clark, of 59, Dixon-avenue, Crosshill, Glasgow, registered as Lic. Soc. Apoth. Lond. 1884, Lic. R. Coll. Phys. Edin. 1885, Lic. Fac. Phys. Surg. Glasg. 1885; Alexander Whyte Mason, of 586, Springburn-road, Glasgow, registered as holding the triple qualification of Scotland 1893; William Allison McLachlan of Dumbarton, registered as M.B., Mast. Surg. 1874, M.D. 1877, Univ. Glasg.; James Wilson of Dumbarton, registered as Lic. Fac. Phys. Surg. Glasg. 1882; Richard Allan of Dumbarton, registered as Lic. R. Coll. Phys. Edin. 1872, Lic. Fac. Phys. Surg. Glasg. 1872; and John Steele Smith, of 480, Springburn-road, Glasgow, registered as M.B., Bac. Surg. 1900, Univ. Glasg., who had been severally summoned to appear before the Council to answer the following charge as formulated by the Council's solicitor:—

That you have been guilty of infamous conduct in a professional respect, particulars of which are that you, being a registered medical practitioner, habitually employ as assistant [or assistants] for the sale of scheduled poisons a person [or persons] not qualified to act as a chemist [or chemists] or pharmaceutical assistant [or assistants] and thereby cause such person [or persons] to commit breaches of the Pharmacy Act.

The complainants are the Pharmaceutical Society of Great Britain.

The plural words in brackets are used in the notices addressed to Mr. Clark and Mr. Wilson.

All the seven practitioners mentioned were in attendance, Mr. Mason having with him Mr. A. R. Ferguson, solicitor, Neilston, while the complainants were represented by Mr. Peter Morison, jun., S.S.C. Edinburgh.

It was arranged that the seven cases should be taken together as one case.

Mr. WINTERBOTHAM, solicitor to the Council, explained that the charges were identical except that in the cases of Mr. Clark and Mr. Wilson there were two assistants mentioned.

Mr. MORISON, in presenting the case for the Pharmaceutical Society, said it was perhaps desirable that he should point out that the legislature had intrusted to the Registrar and Council of the Society the duty of enforcing the provisions of the Pharmacy Act in the interests of the public. It had been suggested by some of the medical practitioners who had been summoned now that the proceedings of the Society were vindictive and were taken to serve ulterior purposes. That was quite a mistake. It was imperative, in the interests of the public, for the Society to take the steps which they had taken, and it was in the interests of the public that the Society appeared on the present occasion. After a full inquiry in the case of Mr. John Martin Thomson this Council on Dec. 3rd, 1900, found that the charge made against Mr. Thomson was proved to the satisfaction of the Council and that the further consideration

of the charge proved against Mr. Thomson be adjourned till the next session of the Council. The President further admonished Mr. Thomson and informed him that the Council felt it to be its duty to express its sense of the gravity of the charge and had given him an opportunity to consider fully his position in the interval. Therefore he submitted that on Dec. 3rd, 1900, a clear indication was given to medical practitioners of what was required of them in duty as fair-minded professional men. The judgment of the Council was not accepted by a number of the medical practitioners who kept chemists' shops, and accordingly, in consequence of complaints, the Pharmaceutical Society had to take proceedings. With the exception of two all the convictions of unqualified assistants on which he relied on the present occasion took place subsequently to the judgment of this Council on Dec. 3rd, 1900. On the general question he submitted it was in the public interest that where an open shop was kept, say, in a busy thoroughfare the sale of poisons ought to be supervised either actually by the medical gentleman himself or the shop should be in the hands of a qualified assistant. The chemist was purely a business man. He was a shopkeeper and nothing else. He gave his whole time and attention to his business and he was examined to obtain his qualification in all the requirements which the statutes enacted for the sale of poisons. Against that view they had to consider that a doctor, owing to his professional engagements, must necessarily be outside the shop a good deal, and while he did not suggest that a doctor did not know how to dispense he thought it was fair to say that in the examinations for his diplomas he did not require to have a minute knowledge of the requirements attendant upon the sale of poisons. He would proceed on the assumption that the extracts of the convictions of the unqualified assistants were admitted because they were all official documents, and he argued that the medical practitioners who employed these assistants must be held responsible for their action. It had also been suggested that the Pharmaceutical Society were not acting in good faith, that they prosecuted doctors and did not prosecute chemists, but this was absolutely untrue, and he was able to speak to 26 cases of prosecutions of chemists.

The PRESIDENT intimated that each of the seven practitioners had sent letters to the Council, and he suggested that the writer in each case should read his letter or letters now to the Council.

Mr. STEWART, in his letter, stated that he had given instructions to his assistant that he must not sell scheduled poisons unless he (Mr. Stewart) were on the premises. He regretted what had taken place and he assured the Council that for the future he would comply with the wishes of the Council.

Mr. CLARK said that when he had an unqualified man he expressly told him not to sell scheduled poisons. Now he had a qualified man, and after expressing regret for what had occurred he undertook that it would not happen again.

Mr. MASON read a letter practically to the same effect.

Dr. McLACHLAN in his letter denied that he habitually employed an unqualified assistant for the sale of scheduled poisons and said that never with his consent had an unqualified assistant sold scheduled poisons. His parochial authorities insisted upon his supplying the poor with drugs, and until quite recently there was no qualified pharmacist in the whole parish, and consequently he had no alternative but to supply drugs. He admitted that his dispenser had been convicted of selling red precipitate ointment to an agent of the Pharmaceutical Society, and if this were contrary to the requirements of this Council then he must make the *amende honorable*.

Mr. WILSON said that his chief reason for having an open surgery was that he had a considerable surgical practice in connexion with the shipbuilding yards and engine works in Dumbarton and accident cases were continually being brought to him which he could not deal with in a private house. He regretted what had taken place and he had now engaged a qualified pharmacist.

Mr. ALLAN explained that poison had been sold contrary to his instructions and that for over 29 years it had been his custom to keep open shop. At the same time he expressed his regret for what had occurred.

Mr. STEELE SMITH denied the charge and said that his assistant had disobeyed his instructions. Now he had locked up all the poisons.

The PRESIDENT said that he was not sure about Mr. Steele

Smith, but he understood that the rest of the gentlemen before the Council took up this position, that they came under an undertaking that in future they would not keep unqualified assistants.

Mr. STEELE SMITH: If my unqualified assistant sells no scheduled poisons can I continue to employ him?

The PRESIDENT: I must call your attention to what the charge is. The charge is, of selling scheduled poisons by the hand of an unqualified assistant.

Mr. STEELE SMITH: Then I will take care that I do not do that.

After the Council had sat in private for a time,

The PRESIDENT announced that the decision was as follows—viz.: That each of the seven practitioners having expressed to the Council their regret for the commission of a professional offence which the Council had declared to be grave and fraught with danger to the public, and having pledged themselves to abstain from any conduct affording similar ground of complaint in the future, the Council resolved to proceed no further in reference to the facts proved against them.

When parties had withdrawn

Mr. YOUNG asked whether it was proposed to take any steps in the direction suggested by the President in his opening address.

The PRESIDENT replied that this matter was under consideration and Dr. MacAlister would put a notice on the subject on the paper.

#### *The Medical Degrees of the University of Malta and the Italian Universities.*

On the consideration of the report of the Executive Committee which had been placed on the minutes on the previous day, and which appears as part of Tuesday's proceedings,

Dr. MACALISTER stated that the Committee had been empowered to take action and action had been taken by them in the preparation of a list consistent with the terms of the Medical Act of 1886 which would show Italian applicants for admission to the Register what were the requirements. The report had been put down for consideration in order that any member might have an opportunity of discussing it or asking questions in regard to it, particularly as for the first time it involved the opening of a Foreign List in the Register. With regard to Malta the Council were practically done with the matter by placing the report on their minutes, but so far as Italy was concerned the action thought necessary was set forth in a report of the Executive Committee's meeting of Tuesday.

Dr. McVAIL elicited the information that there had been delay in the circulation of this report, and moved that the discussion should be deferred until members had had an opportunity of looking over the report.

Mr. HORSLEY, in seconding the proposal, pointed out that in fulfilling the duty entrusted to them the executive had taken upon themselves to lay down that the regulations necessary for medical education in this country were wholly unnecessary when dealing with Italian education. The whole action of the committee was, he thought, not fair to English education.

It was resolved:—

That consideration of the report of the Executive Committee on the medical degrees of the Italian universities be postponed until to-morrow.

#### *Recognised Scientific Institutions.*

The Council proceeded to consider a report by the Executive Committee on recognised scientific institutions other than universities or schools of medicine recognised by the licensing bodies, presented in accordance with the desire of the General Council that the list of institutions should be re-arranged by the Committee, as follows:—

The Executive Committee, in pursuance of the Council's Resolution of December 4th, 1900 (Minutes, Vol. xxxvii., p. 143), beg leave to submit for the approval of the Council the following revised list of scientific institutions recognised by licensing bodies.

The list is intended to exclude higher elementary and secondary schools at which boys or girls receive their ordinary education; it also excludes certain municipal and other schools of science and art which purport to give instruction to schoolboys and other young persons preparing for trades and handicrafts and not for the medical profession.

The Executive Committee recommend that if the list is approved in principle, the Students' Registration Committee should be empowered to give provisional approval on behalf of the Council to other scientific institutions of the same status which may hereafter be recognised by licensing bodies. The names of scientific institutions thus provisionally approved would be reported half-yearly to the Council.

Scientific institutions, other than universities or schools of medicine,

at which the course of medical study may be commenced by applicants for registration in the Medical Students' Register:—

BRADFORD: Technical College.  
BRIGHTON: Technical Day College.  
BRISTOL: Merchant Venturers' Technical College.  
CAMBRIDGE: Girton College, Newnham College.  
CHELTENHAM: Ladies' University College.  
DERRY: Technical College.  
DUBLIN: Royal College of Science.  
EGHAM: Royal Holloway College.  
EXETER: Royal Albert Memorial College.  
LONDON: Royal College of Science, Bedford College, Birkbeck Institute, East London Technical College, Central Technical College, Westfield College.  
NEWCASTLE: Durham College of Science.  
NOTTINGHAM: University College.  
PRESTON: Harris Institute.  
READING: Reading College.  
SOUTHAMPTON: Hartley College.

Dr. MACALISTER explained that the list the committee had been asked to revise contained such names as Aberystwyth, Bangor, Cardiff, whose colleges formed part of the University of Wales, Birmingham which was part of the University of Birmingham, Liverpool and Manchester Colleges which were part of the Victoria University, and Dundee College which was affiliated to St. Andrews University. There was thus no occasion for these institutions any longer to appear in the list. The information which the committee had received had been obtained from the various bodies interested and every institution recognised by the licensing bodies had been included in the revised list now submitted. Well-known institutions were not included mainly because they were not at present recognised by the licensing bodies, and that was a reason why the committee suggested that the Students' Registration Committee might be empowered by the Council to extend the list from time to time. As a preliminary step in procedure he moved that the list be received and entered on the minutes.

This motion was seconded by Mr. TICHBORNE, and was agreed to after the words "for Ireland, University College" had been added to "Dublin: Royal College of Science."

Dr. MACALISTER next moved:—

"That the list of scientific institutions submitted by the Executive Committee be approved by the Council."

Sir CHRISTOPHER NIXON seconded the proposal.

Dr. NORMAN MOORE said it was quite clear that if the Council wished to have a list at all it was important to consider each particular case and not the whole case. In the preamble of the report it was mentioned as an objection that the committee objected to the inclusion of institutions which purported to give instruction to schoolboys and other young persons preparing for trades and handicrafts and not for the medical profession. But there were many institutions in which education for trades and handicrafts and education for the medical profession were combined. Was that an objection to such institutions? He must remind them that a department of agriculture existed in the University of Durham, while there was to be a department for commerce in the new University of Birmingham. If there was to be objection to such arrangements the Executive Committee ought to be consistent. The Harris Institute at Preston taught needlework. That did not seem to him to be an objection to the institute being recognised, because students taking instruction in other departments occupied in the recess some of their time with the construction of artistic needlework. With regard to other of the colleges mentioned in the list he should like the Council to be informed whether the Girton College and Newnham College at Cambridge, the Ladies' University College at Cheltenham, and the Bedford College of London were equipped for the teaching of physics, chemistry, and biology. Had they biological museums and laboratories such as universities and medical schools had? He did not know. He thought the Council ought to know, because these points were points which seemed to him to show that, if the Council was to recognise a list of institutions of the kind desired, it must take more pains in the investigation of which were the proper institutions than the Executive Committee had yet taken. He did not go so far as to say that all institutions should be visited, but he did say that into their conduct and equipment there should be thorough inquiry. In the meantime he was prepared to move as an amendment:

That Newnham College, Cheltenham Ladies' College, and Bedford College be not included in the list.

If it was afterwards proved that these institutions had

sufficient equipment he should not have the least objection to their inclusion.

Sir JOHN WILLIAMS asked whether this matter should not be taken in conjunction with a report to be submitted later by the Education Committee on a motion and amendment with regard to the conditions for admission to the Medical Students' Register, referred to them in June last, arising out of the consideration of certain communications from the Royal College of Physicians of London and the Royal College of Surgeons of England.

Dr. McVAIL said that he had meant to move that they should adjourn the consideration of this revised list of scientific institutions until the report was before them.

Dr. NORMAN MOORE objected to any postponement. The two questions, he said, were quite distinct. The list before the Council had nothing whatever to do with the Royal College of Physicians, which had already decided what institutions they might recognise and all of which had been visited by them.

Sir CHRISTOPHER NIXON asked if it was a fact that all the institutions referred to had been visited. He understood it to be the case that there were some which had not been visited.

Dr. NORMAN MOORE: The Royal College of Physicians insist on the power of visitation. All the institutions on their list would be visited in a very short time.

Mr. HORSLEY: Do I understand Dr. Norman Moore to ask whether the Ladies' College at Cheltenham is equipped with a biological museum. I have been there, and I am bound to say that there is a very proper effort on the part of that College to found a biological museum.

Dr. NORMAN MOORE: Is Mr. Horsley satisfied that the equipment is sufficient for the purposes we know the Council wish to serve.

Mr. HORSLEY: I am quite satisfied with the museum.

Dr. NORMAN MOORE: Then I shall remove the name of the Cheltenham College from my amendment.

Sir CHRISTOPHER NIXON considered that the action proposed by Dr. Norman Moore was somewhat strange. Certain institutions had been named to the Council and it was now proposed that a certain number of them should be removed from the list. Did a doubt exist in Dr. Norman Moore's mind whether these institutions had the equipment with which to give the necessary instruction. They might or they might not have. It was uncertain, and yet Dr. Norman Moore proposed to take the drastic mode of removing these institutions. It would be better to postpone the matter until Dr. Norman Moore was satisfied about these several institutions.

Dr. MACALISTER said that with regard to Newnham it was a college in Cambridge but not a college of the University of Cambridge. Students of Newnham, however, preparing for London or Irish degrees had perfectly free access to all the laboratories of the University. Newnham had established biological and chemical laboratories and for physics its students went to the University. The equipment, therefore, for the first years' studies was ample and complete. With regard to Bedford College, it was one of the schools of the University of London and the names of its students were not unfamiliar in the list of those who obtained degrees. There was ample material for their beginning medical studies in Bedford College.

The PRESIDENT thought that Dr. MacAlister should tell them whether institutions of the kind in question required to give instruction in all the three subjects or whether if the institution taught two only of them it should or should not be recognised.

Dr. MACALISTER replied that all the Council and Registrar had to do with the matter was to see that students began their first year in the three subjects or two of them. Dr. Moore's reference to the question as to the institutions in which combined instruction was given for the medical profession and for trades and handicrafts was confusing the issue. He had never recommended that technical instruction should be dissociated in any institution from medical instruction.

The Council then voted on the amendment, which the President declared to be lost.

Dr. McVAIL maintained that the matter of approving of the revised list of institutions now before the Council was the practical admission of a number of institutions which had not medical schools. If this was to be carried the list submitted must be greatly augmented. If they thought

otherwise the list would be quite insufficient, but it was his hope that they would not need any list at all. He moved as a further amendment:—

That the further consideration of the report of the Executive Committee on Scientific Institutions be postponed until after the Education Committee's report on the conditions for admission to the Students' Register has been considered.

Dr. GLOVER seconded the amendment.

Dr. MACALISTER thought that the Council should finish this subject before rising for the day. The approval of the list now would do no more than enable registration to be proceeded with and the list could be extended at convenience. There were many well-known science colleges throughout the country that were not included, but the absence of their names was simply due to the fact that they had not yet been recognised by any of the licensing bodies. The moment such recognition was accorded, then there would be no difficulty in placing them on the list.

Mr. BROWN supported Dr. McVail's amendment.

The PRESIDENT remarked that there was a practical question involved in the consideration of the revised list. It was quite obvious that the list was not a final one, but only a first list. For instance, there was not a Scotch institution included in it, and when he had seen that he was indignant. But Dr. MacAlister had pacified him by saying that none of the institutions of the kind in Scotland were at present recognised by the licensing bodies, but that, as soon as they were recognised, the committee would be prepared to consider their inclusion.

Sir WILLIAM THOMSON said that he should vote for the motion for postponement because it seemed to him so very important and was involved in the question of the conditions of admission of students to the Register. He did not like them taking up one part of a subject on one day and another part on another day, as he had seen this procedure lead to results which were inconsistent with each other.

On a division there voted for Dr. McVail's amendment 14 and against it six, giving a majority for the amendment of eight votes.

The amendment was then put as a substantive motion and was carried without dissent.

Further discussion of the Executive Committee's revised list of scientific institutions to be recognised for first-year's medical subjects was accordingly postponed.

The Council after sitting for a few minutes in camera adjourned.

THURSDAY, NOV. 28TH.

The Council met again to-day and proceeded to the consideration of penal cases.

## Medical News.

UNIVERSITY OF LONDON.—At the M.B. Examination held in October, the following candidates were successful.

*First Division.*—John Atkins, Guy's Hospital; Hermann Balcan, London Hospital; Janet Mary Campbell, London (Royal Free Hospital) School of Medicine for Women; Frank Challans, London Hospital; Carey Franklin Coombs, St. Mary's Hospital; Alfred Ernest Jones, University College Hospital; Henry Crowe Keates, Guy's Hospital; Robert Kelsall, Owens College and Royal Infirmary, Manchester; Robert Archer Lloyd, St. Bartholomew's Hospital; John Ford Northcott, Guy's Hospital; Richard Horace Paramore, St. Bartholomew's Hospital; Arthur Ricketts, University College Hospital; Charles Archibald Scott Ridout, St. Bartholomew's Hospital; William Morton Robson, Guy's Hospital; Ellen Mary Sharp, London (Royal Free Hospital) School of Medicine for Women; John Henry Sheldon, Owens College and Manchester Royal Infirmary; James Ernest Stratton, University College Hospital; Albert E. Thomas, and Charles J. Thomas, B.Sc., St. Bartholomew's Hospital; Kenneth Vincent Trubshaw, Guy's Hospital; John Frederick Walker, London Hospital; William H. Wynn, B.Sc., University and Queen's and General Hospitals, Birmingham; and Ernest Eric Young, St. Bartholomew's Hospital.

*Second Division.*—Kenneth Bush Alexander, Guy's Hospital; Alfred Eaton Baker, Middlesex Hospital; Robert Balderston, Guy's Hospital; Ernest Gilbert Bark, Queen's and General Hospitals, Birmingham, and Birmingham University; Harold Shuttleworth, Barwell, St. George's Hospital; Anthony Birch, St. Mary's Hospital; William Henry Bowen, Guy's Hospital; Sidney Bree, University College Hospital; John Charlton Briscoe, King's College Hospital; Henry Marlyn Brown, St. Mary's Hospital; Herbert William Brown, Guy's Hospital; Katherine Chamberlain and Olive Clayton, London (Royal Free Hospital) School of Medicine for Women; Myer Coplans, Guy's Hospital; Louis Edlington Dickson, University College, Liverpool, and St. Bartholomew's Hospital; Arthur Edmunds, B.Sc., King's College Hospital; Benjamin Gregory Fiddian, Charing Cross Hospital and University College

Cardiff; Herbert Halliday, Westminster Hospital; Helen Beatrice Hanson, London (Royal Free Hospital) School of Medicine for Women; T. Ayscough Hawkesworth, King's College Hospital; Helena Gertrude Jones, London (Royal Free Hospital) School of Medicine for Women; Ernest William Julius Ladell, St. Bartholomew's Hospital; Ernest Lewis Lilley, Charing Cross Hospital; Edward Vaughan Lindsey, St. Bartholomew's Hospital; Thomas Lister Llewellyn, University College Hospital; Kenneth Fraser Lund, Cambridge University and Royal Infirmary, Liverpool; Zebulon Mennell, St. Thomas's Hospital; Edwin Morgan, University College Hospital; Bertram Wilmore Moss, Guy's Hospital; Frank Herbert Noke, St. Bartholomew's Hospital; William Gibson Parker, Guy's Hospital; William Edward Peck, Joseph Arthur Perdrau, and Howard Welles Reynolds, University College Hospital; Robert Ellis Roberts, B.Sc., St. Thomas's Hospital; Florence Robinson and Agnes Catherine Scott, London (Royal Free Hospital) School of Medicine for Women; Walter Bernard Secretan, Guy's Hospital; Charles Gabriel Seligmann and Cuthbert Pennessy Selous, St. Thomas's Hospital; Harold Farley Seymour, London Hospital; Harold Weightman Sinclair, St. Thomas's Hospital; Anna Maude Smith, London (Royal Free Hospital) School of Medicine for Women; Douglas Wilberforce Smith, Guy's Hospital; Alfred Richard Spencer, University College Hospital; Louis E. Stamm, B.A., B.Sc., Guy's Hospital; William Lumsden Stuart, King's College Hospital; John Herbert Sykes, Owens College and Manchester Royal Infirmary; Claude Tessier, Guy's Hospital; Robert Cyril Turnbull, London Hospital; George William Watson, Yorkshire College and Leeds School of Medicine; George Ernest Waugh, Cambridge University and University College Hospital, London; Augustus Joseph Wernet and Frank Cordeux Wetherell, Guy's Hospital; Clarence Barns Whitehead, St. Mary's Hospital; John Thomas Williams, University College Hospital; Arthur Gordon Wilson, Owens College, Manchester, and Edith Louisa Young, London (Royal Free Hospital) School of Medicine for Women.

**SOCIETY OF APOTHECARIES OF LONDON.**—In November the following candidates passed in the subjects indicated:—

**Surgery.**—J. E. Bolton (Sections I. and II.), Leeds; E. N. de V. Dawson (Section I.), St. Thomas's Hospital; R. Gauld (Section I.), London Hospital; W. St. A. F. Hubbard (Section I.), Charing Cross Hospital; B. S. O. Maunsell (Sections I. and II.), St. Bartholomew's Hospital; H. S. McLellan (Section I.), Manchester; D. V. Muller (Section I.), Charing Cross Hospital; R. Rees (Sections I. and II.), Cambridge and St. Mary's Hospital; and C. M. Woods (Sections I. and II.), Charing Cross Hospital.

**Medicine.**—C. H. Allan (Sections I. and II.), London Hospital; P. C. Burgess (Section II.), Middlesex Hospital; A. Dewar, McGill and Westminster Hospital; P. S. Hopkins (Section I.), London Hospital; H. S. McLellan (Section I.), Manchester; D. V. Muller (Section I.), Charing Cross Hospital; B. E. Sansom (Sections I. and II.), St. Thomas's Hospital; and F. I. Trimmer (Sections I. and II.), London Hospital.

**Forensic Medicine.**—C. H. Allan, London Hospital; J. H. Beasley, Birmingham; S. F. Cheesman, Charing Cross Hospital; A. Dewar, McGill and Westminster Hospital; P. S. Hopkins and C. E. A. Huddart, London Hospital; H. S. McLellan, Manchester; B. E. Sansom, St. Thomas's Hospital; and F. I. Trimmer, London Hospital.

**Midwifery.**—R. Gauld, London Hospital; H. S. McLellan, Manchester; and F. H. Rotherham, London Hospital.

The diploma of the Society was granted to the following candidates, entitling them to practise Medicine, Surgery, and Midwifery:—C. H. Allan, J. H. Beasley, P. C. Burgess, B. S. O. Maunsell, B. E. Sansom, and F. I. Trimmer.

**ROYAL COLLEGE OF SURGEONS IN IRELAND.**—The following candidates, having passed the necessary examinations, have been admitted Fellows of the College:—

M. Ballesty, E. T. Coady, F. P. Colgan, H. C. Fox, P. G. Lodge, G. E. P. Meldon, E. F. Stapleton, F. S. Walker, R. J. White, and G. O'Keeffe Wilson.

The following candidates passed the primary part of the Fellowship examination:—

Miss L. A. Baker, M. Deeny, M. Fitzgerald, A. E. Haastings, Miss M. R. Kapadia, E. B. Kenny, J. N. Meenan, W. L. Murphy, H. R. C. Rutherford, J. W. Rutherford, and F. C. Sampson.

**THE UNIVERSITY OF BRUSSELS.**—The following is the list of successful candidates at the November examination for the degree of M.D. Brux.:—

Alex. Barton, 67, Westbourne Park-road, W.; Arthur W. Viner Clarke, 37, Selhurst-road, S.E.; and Ernest J. Finch, R.N., Devonport.

**FOREIGN UNIVERSITY INTELLIGENCE.**—*Rome:* Dr. Primo Dorelli has been recognised as *privat-docent* of Anatomy; Dr. Virgilio Ducceschi as *privat-docent* of Experimental Physiology; Dr. Ferruccio Schupfer as *privat-docent* of Neurology; Dr. Oddo Casagrandi as *privat-docent* of Experimental Hygiene and Sanitary Police; and Dr. Carlo Colombo as *privat-docent* of Physical Therapeutics. *Strasburg:* Dr. Kraft has been recognised as *privat-docent* of Radioscopy and Hydro-therapeutics. *Turin:* Dr. Angelo Ceconi of Padua has been recognised as *privat-docent* of Medical Pathology. *Vicenza:* Dr. Arthur Schiff has been recognised as *privat-docent* of Internal Medicine; Dr. Emil Knauer as *privat-docent* of Midwifery and Gynaecology; and Dr. Wilhelm Knöpfelmacher as *privat-docent* of Pædiatry.

*Zürich:* Dr. A. Prochaska has been recognised as *privat-docent* of Internal Medicine.

**BRITISH MEDICAL TEMPERANCE ASSOCIATION.**—A meeting of this association was held in the Governors' room of the National Temperance Hospital (by kind permission of the Visiting Committee) on Nov. 22nd. Mr. Charters J. Symonds presided, and the discussion, which was on the "Advantages of Total Abstinence," was ably opened by Dr. E. Claude Taylor. Several students and others took part in what proved a most interesting and instructive discussion. Tea and coffee (provided by the kindness of the hospital authorities) were served during the half hour preceding the meeting.

**ROYAL METEOROLOGICAL SOCIETY.**—The opening meeting of this society for the session was held on Nov. 20th, at the Institution of Civil Engineers, Mr. W. H. Dines, B.A., the President, being in the chair.—A paper by Mr. A. Lawrence Rotch on the Exploration of the Atmosphere at Sea by means of Kites was read by the secretary. Mr. Rotch had for some years past devoted his attention to the use of kites to obtain meteorological observations at the Blue Hill Observatory, Mass., U.S.A., and he had successfully carried on the work of exploring the air there to a height of three miles by several hundred kite-flights executed in varied conditions of weather, whenever the velocity of the wind exceeded 12 miles an hour. Certain types of weather, however, such as anti-cyclones accompanied by light winds, could rarely be studied. Mr. Rotch now proposed the employment of kites carrying meteorographs on steamships, especially on vessels cruising in tropical oceans. He had himself demonstrated the practicability of this scheme, as on August 22nd last he raised a kite to an elevation of half a mile from a tow-boat in Massachusetts Bay, when the velocity of the wind at sea-level varied between six and 10 miles an hour. At the end of the same month, when crossing the North Atlantic from Boston to Liverpool on the steamship *Commonwealth*, he was able to raise kites carrying a meteorograph to an altitude of 1800 feet on five days out of eight. The chief feature of these records was the rapid change of temperature with height.—A paper by Professor J. Milne, F.R.S., on Meteorological Phenomena in relation to Changes in the Vertical was also read by the secretary.

**DIPHTHERIA IN PRESTWICH.**—Some time ago there was a good deal of diphtheria in the Prestwich Urban District, and Dr. Theodore Thomson of the Local Government Board, went to Prestwich to investigate the causes of its prevalence. In the period 1891–1900 117 cases occurred, 76 of them in 1900, in which year 15 deaths took place, while nine deaths were scattered over the other years. In the first half of the present year 64 cases are known to have occurred, and 12 deaths have been attributed to diphtheria. The great majority of the cases occurred in one locality. Schools were closed on two occasions, and on each occasion this was followed by a decrease in the prevalence of the disease. Dr. Thomson is somewhat severe as to the general sanitary condition of the district, and makes various recommendations, especially as to the gradual extension of the water-carriage system and as to the erection of a destructor. He does not think that the milk was the cause of the prevalence of the diphtheria, nor was it easy to say how far the unwholesome conditions noted may have played a part in it. The effect of the school closure "tends to suggest that the dissemination of diphtheria in the district was aided, and perhaps largely aided, by the transmission of infection from the unrecognised sick to the healthy while at school together." At the meeting of the Prestwich District Board on Nov. 12th the strictures which Dr. Thomson had made were not received with gratitude, the chairman of the Health Committee saying that the death-rate of Prestwich compared very favourably with the rate in districts similarly situated. This recalls what is said to happen in Manchester when specially insanitary houses are condemned. The landlord or agent is always ready with accounts of the remarkable longevity of those who have occupied them. *Apropos* of school closing, Dr. R. T. Turner, the medical officer of the Nantwich Rural District Council, in drawing attention to a serious outbreak of diphtheria at Wyburnbury, said that he was sure that it was spread by means of infection at school. He called attention to the practice which children had of cleaning their slates with saliva as a way in which the germs of the disease might be

communicated, and he thought that water should be used and that each child should have his own slate. All the cases occurred where the sanitation was bad.

**MEDICAL ALDERMAN.**—Mr. John Quick, M.R.C.S. Eng., L.S.A., was on Nov. 15th elected an alderman of the Torquay Town Council.

**MR. HENRY GARD, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg.,** was on Nov. 19th elected a member of the Devonport Borough Council.

**MR. COLSTON WINTLE, L.R.C.P. Lond., M.R.C.S. Eng.,** has been re-elected vice-chairman of the Bristol Health Committee.

**HOSPITAL SUNDAY AT PLYMOUTH.**—As a result of the recent Hospital Sunday collections at Plymouth the committee of the South Devon and East Cornwall Hospital, Plymouth, have received over £616.

**BARRY SCHOOL BOARD.**—At the Barry School Board election held on Nov. 15th nine members were returned, Mr. W. Lloyd Edwards, L.R.C.P. Lond., M.R.C.S. Eng., being at the head of the poll.

**CORNWALL COUNTY ASYLUM.**—Major C. Norton held an inquiry at Bodmin on Nov. 21st into the application of the Cornwall County Council to borrow £105,000 for the purposes of the extension of the county asylum.

**DONATIONS AND BEQUESTS.**—By the will of the late Mr. Martin Hope Sutton of Reading £1000 are left to the Royal Berkshire Hospital and £200 to the Reading Dispensary.—Mr. Edward Lucas by his will has left to the Jews' Hospital and Asylum £25; to St. Mary's Hospital, £20; and to the Jewish Lying-in Hospital, founded by the late Baroness Lionel de Rothschild, £15.

**THE CONSCIENTIOUS OBJECTOR.**—At the meeting of the Warminster Board of Guardians held on Nov. 18th a recommendation was presented suggesting that magistrates' courts should be held in villages to enable conscientious objectors to obtain exemption certificates from vaccination without the loss of a day's work, as now happens. The letter was allowed "to lie on the table," the chairman remarking that the guardians were certainly not going to help to make it more easy for conscientious objectors to obtain exemption than it was at present.

**DEATH FROM ANTHRAX.**—An inquest was held in Bristol on Nov. 18th upon the body of a grain porter, aged 44 years. The deceased fell ill on Nov. 13th, but continued at work until the 14th, and on the following day he consulted a medical man. The same evening he was admitted into the Bristol General Hospital, where he was found to have an anthrax pustule on the right side of the cheek, and where he died on the 16th. The jury returned a verdict that the deceased died from anthrax poisoning, but how contracted there was no evidence to show.

**DINNER TO MR. JAMES HARDIE, F.R.C.S. ENG.**—Mr. Hardie, who has recently retired from the acting staff of the Royal Infirmary, Manchester, was entertained at dinner on Nov. 8th by his old house surgeons. Mr. Hardie had been full surgeon to the infirmary for 18½ years and of the 37 house surgeons who had served under him during that period 22 were present at the dinner. Dr. Joseph Clegg of Urnston presided, and in proposing the health of the guest of the evening he referred in suitable terms to the very high esteem in which, both as a surgeon and a friend, Mr. Hardie is held by all his former assistants. Mr. T. C. Orford acted as secretary.

#### BOOKS, ETC., RECEIVED.

**ARNOLD, EDWARD, 37, Bedford-street, Strand, W.C. (CHARLES SCRIBNER'S SONS, New York.)**

*Studies in Physiological Chemistry, Sheffield Scientific School of Yale University, 1897-1900.* Edited by R. H. Chittenden, Ph.D. Price 17s. net.

**BAILLIÈRE, J. B., ET FILS, 19, rue Hautefeuille, Paris.**

*Sémiologie Pratique des Poumons et de la Plèvre, Signes Physiques, Inspection, Palpation, Percussion, Auscultation.* By Henry Barbier, Médecin de l'Hôpital Hérold. Preface by M. le Professeur Grancher. Price 4 francs.

**BONDI, GEORG, Berlin.**

*(Das Neunzehnte Jahrhundert in Deutschlands Entwicklung. Herausgegeben von Dr. Paul Schlenker, K.K. Direktor des Wiener Hofburgtheaters, Band VI.). Geschichte der organischen Naturwissenschaften im Neunzehnten Jahrhundert. (Medizin und deren Hilfswissenschaften, Zoologie und Botanik.)* By Dr. Franz Carl Müller of Munich. Price, paper M 10, cloth M. 12.50.

**BERGMANN, J. F., Wiesbaden. (F. BAUERMEISTER, Glasgow.)**

*Beiträge zur Kenntnis der Lungentuberculose (Aus der Heilanstalt Hohenhonnef). Edited by Dr. Med. Ernst Meissen, dirigirendem Arzte der Heilanstalt Hohenhonnef.* Price M. 4.60, or 4s. 9d.

*Der Einfluss des Alkohols auf den Organismus.* By Dr. Georg Rosenfeld, Spezialarzt für innere Krankheiten in Breslau. Price M. 5.60 or 5s. 9d.

*Die Griechischen Götter und die menschlichen Missgeburten.* Lecture delivered to the Dozentverein of Rostock University on May 3rd, 1901, by Professor Dr. Schatz, Geheimer Medicinalrath und Professor für Geburtshilfe und Frauenkrankheiten. Price M. 2.40, or 2s. 6d.

*Grundriss der Kinderheilkunde mit besonderer Berücksichtigung der Diätetik.* By Dr. Otto Hauser, Spezialarzt für Kinderkrankheiten in Berlin. Second revised edition. Price M. 8, or 8s.

*Morphologie und Mechanismus der Skoliose.* By Dr. Jakob Reindinger, Privatdozent an der Universität Würzburg. Price M. 4, or 4s.

*Receptaschenbuch für Kinder-Krankheiten.* Compiled by Dr. Otto Seifert, Professor E.O. in Würzburg. Fourth edition. Price M. 3.20, or 3s. 3d.

*Zur pathologischen Anatomie des kindlichen Alters.* By Dr. A. Steffen of Stettin. Price M. 8, or 8s.

**BLACKIE AND SON, Limited, London, Glasgow, and Dublin.**

*Carbineer and Scout. A Story of the Great Boer War.* By E. Harcourt Burrage, author of "The Missing Million," &c. Price 2s. 6d.

*With Roberts to Pretoria. A Tale of the South African War.* By G. A. Henty, author of "With Buller in Natal," "In the Irish Brigade," &c. Price 6s.

*Nonsense, Nonsense!* Written by Walter Jerrold and pictured by Charles Robinson. Price 6s.

*The Animal Book.* By Fred Smith, author of "The Boyhood of a Naturalist." With a Coloured Frontispiece and 34 full-page Illustrations by F. Specht. Price 2s. 6d.

**BLACKWOOD, WILLIAM, AND SONS, Edinburgh and London.**

*The End of an Epoch, being the personal narrative of Adam Godwin, the Survivor.* By A. Lincoln Green. Price 6s.

**DEACON, CHARLES WILLIAM, AND CO., Duke-street, Adelphi, W.C.**

*Part I. "Ugly," a Hoepital Dog. Told by Himself. Part II. Recitations and Readings for Odd Hours.* By George H. R. Dabbs, M.D. Price 1s.

**HIRSCHWALD, AUGUST, Unter den Linden, 68, Berlin.**

*Die chronischen Nierenentzündungen in ihrer Einwirkung auf die Blutfüssigkeit in der Behandlung.* By Privatdocent Dr. H. Strauss, Assistent der III. medicinischen Universitätsklinik zu Berlin. Price M. 4.

*Klinik der Verdauungskrankheiten.* By Dr. C. A. Ewald. III. Band. Die Krankheiten des Darms, und des Bauchfells. Price M. 14.

**KIMPTON, HENRY, 13, Fumival-street, Holborn, E.C.**

*Essentials of Diseases of the Nose and Throat, arranged in the form of Questions and Answers.* By E. B. Gleason, S.B., M.D. Third edition, revised and enlarged. Price not stated.

*Essentials of Gynecology, arranged in the form of Questions and Answers.* By Edwin B. Cragin, M.D. of New York. Fifth edition, thoroughly revised by Frank S. Matthews, M.D., of New York. Price not stated.

*A Manual of Obstetrics.* By A. F. A. King, A.M., M.D., of Washington. Eighth edition, revised and enlarged. Price 12s. 6d. net.

*A Clinical Manual of Skin Diseases, with special reference to Diagnosis and Treatment.* By W. A. Hardaway, A.M., M.D., of St. Louis. Second edition, revised and enlarged. Price 10s. 6d. net.

**LEWIS, H. K., 136, Gower-street, W.C.**

*A Text-book of Medicine for Students and Practitioners.* By Dr. Adolf Strümpell, Professor and Director of the Medical Clinique at Erlangen. Third American edition, translated from the thirteenth German edition. By Herman F. Vickery, A.B., M.D., and P. C. Knapp, A.M., M.D., with editorial notes by F. C. Shattuck, A.M., M.D. Price 24s. net.

**LONGMANS, GREEN, AND CO., 39, Paternoster-row, E.C.**

*The Essentials of Chemical Physiology. For the use of Students* By W. D. Halliburton, M.D., F.R.S. Fourth edition. Price 5s.

**S. S. WHITE DENTAL MANUFACTURING COMPANY, Philadelphia, U.S.A.**

*Studies of the Internal Anatomy of the Face.* By M. H. Cryer M.D., D.D.S., Professor of Oral Surgery, Department of Dentistry of the University of Pennsylvania. Price not stated.

**STEINHEIL, G., 2, rue Casimir-Delavigne, Paris.**

*Études Anatomiques sur les Grossesses Tubaires.* By Dr. A. Couvelaire, Chef de Clinique Obstétricale à la Faculté de Médecine de Paris. Price not stated.

**UNWIN, T. FISHER, Paternoster-square, E.C.**

*"Prosperous" British India. A Revelation from Official Records* By William Digby, C.I.E. Price 12s. 6d.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

AMBROSE, P. J. A., has been appointed Certifying Surgeon under the Factory Acts for the West Drayton District of Middlesex.  
 ARMSTRONG, A. J. M., L.R.C.P. Edin., M.R.C.S., has been appointed Vaccination and Medical Officer for the Southgate Union.  
 BROWN, E. ARCHER, M.B. Edin., M.R.C.S., has been appointed Medical Officer to one of the Transvaal Concentration Camps.  
 CUTHBERT, W. H., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health under the Frinton-on-Sea Urban District Council.  
 DONALDSON, WILLIAM IRELAND, B.A., M.D. Univ. Dub., has been appointed Medical Superintendent to the London County Asylum, The Manor, Epsom.  
 KENNEDY, T. M.B., B.Ch., B.A.O. R.U.I., has been appointed Junior House Surgeon to the Miller Hospital and Royal Kent Dispensary.  
 LONG, SYDNEY H., M.B. Cantab., has been appointed Physician to the Jenny Lind Infirmary for Sick Children, Norwich.  
 NICHOL, F. R., M.B. Cantab., has been appointed Certifying Surgeon under the Factory Acts for the Margate District of Kent.  
 PEACOCK, C., M.B., B.Ch., B.A.O. R.U.I., has been appointed Senior House Surgeon to the Miller Hospital and Royal Kent Dispensary.  
 PERKINS, PHILIP MEYLER, M.B., B.S. Dunelm, M.R.C.S., has been appointed House Physician to the Sussex County Hospital, Brighton.  
 PITT, C. W., M.R.C.S., L.S.A., has been re-appointed Medical Officer of Health for Malmesbury.  
 PRESTON, L. L., M.B. Durh., M.R.C.S., has been appointed Medical Officer of Health under the St. Helens Urban District Council.  
 REID, A. D., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Paddington Green Children's Hospital.  
 REID, R. WATSON, M.B., Ch.B., has been appointed House Physician to the Paddington Green Children's Hospital.  
 SECOMBE, J. W. S., M.R.C.S., L.R.C.P., has been appointed Junior House Surgeon to the Radcliffe Infirmary, Oxford.  
 SUMPTER, W. J. BENLEY, L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Medical Officer of Health of the Sheringham Urban District.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES, Birmingham.—Clinical Assistant.  
 BETHLEHEM HOSPITAL.—Two Resident House Physicians for six months. Honorarium at rate of £25 each per quarter, with board and washing.  
 BRADFORD CHILDREN'S HOSPITAL.—House Surgeon. Salary £100, with board, residence, and washing.  
 BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, unmarried. Salary £100 per annum, with board and residence.  
 BRISTOL EYE HOSPITAL.—House Surgeon. Salary £80, with board and residence.  
 BURGHE OF PAISLEY INFECTIOUS DISEASES HOSPITAL.—Resident Physician. Salary £100 per annum, with board, washing, and attendance.  
 CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Resident Medical Officer, unmarried. Salary £50 per annum.  
 COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer, unmarried. Salary £150 per annum, with prospect of increase, and apartments, board, attendance, and washing.  
 DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—House Surgeon and Assistant House Surgeon. Salary, House Surgeon £100 per annum, Assistant £50 per annum, with apartments, board, and lodging.  
 DOWN DISTRICT LUNATIC ASYLUM, Downpatrick.—Assistant Medical Officer, unmarried. Salary £150, increasing to £200, with apartments, board, washing, and attendance.  
 HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—House Physician, unmarried, for six months. Salary £20, washing allowance, and board and residence in the hospital.  
 KING'S COLLEGE, London.—Demonstrator of Pathology and Bacteriology.  
 MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST (In-patient Department, Bowdon, Cheshire).—Resident Medical Officer. Salary £100 per annum, with board, apartments, washing, and railway contract to Manchester.  
 METROPOLITAN ASYLUMS BOARD ASYLUM, Caterham, Surrey.—Assistant Medical Officer, unmarried. Salary £150 per annum, rising to £170, with rations, lodging, attendance, and washing.  
 NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-upon-Trent.—House Surgeon. Salary £120 per annum, with increase, and apartments, board, and washing.

NOTTINGHAM GENERAL HOSPITAL.—House Surgeon. Salary £100, rising to £120, with board, lodging, and washing.  
 NOTTS COUNTY LUNATIC ASYLUM, Sneinton, Nottingham.—Medical Superintendent, married. Salary £600 per annum, with house, coal, light, washing, and garden produce.  
 PERTH DISTRICT ASYLUM, Murthly, Assistant Physician, unmarried. Salary £110, with apartments, board, attendance, &c.  
 ROYAL EAR HOSPITAL, Soho.—House Surgeon. Small honorarium.  
 ROYAL HANTS COUNTY HOSPITAL.—House Physician, unmarried. Salary £85 per annum, rising to £75, with board, residence, &c.  
 ROYAL HOSPITAL FOR INCURABLES, Donnybrook, Dublin.—Resident Medical Officer. Salary £100 per annum, with board and apartments.  
 ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Obstetric Tutor.  
 ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck-street, Cavendish-square.—Resident Medical Officer. Salary 100 guineas per annum, increasing to 120 guineas, with apartments, attendance, coal, and light.  
 ST. THOMAS'S HOSPITAL.—Assistant Obstetric Physician.  
 STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—House Surgeon. Salary £120 per annum, with board, lodging, and washing.  
 SUSSEX COUNTY HOSPITAL, Brighton.—Second House Surgeon and Anesthetist, unmarried. Salary £70 per annum, with board and residence.  
 SWANSEA GENERAL AND EYE HOSPITAL.—Resident Medical Officer. Salary £75 per annum, with board, apartments, washing, and attendance.  
 THROAT HOSPITAL, Golden-square, W.—Three Honorary Anesthetists.  
 TOTTENHAM HOSPITAL.—House Surgeon. Salary £50 per annum, with board, residence, laundry, &c.  
 WEST HAM HOSPITAL, Stratford, E.—Junior House Surgeon. Salary £75 per annum, with board, residence, &c.  
 WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician; also House Surgeon for six months. Board and lodging are provided. Also Physician and Assistant Physician.  
 WILTS COUNTY ASYLUM, Devizes.—Assistant Medical Officer, unmarried. Salary £150, rising to £180, with board, residence, attendance, and washing.

The Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies under the Factory Acts as Certifying Surgeons at Uoleby, in the county of Lincoln; at Tideswell, in the county of Derby; and at Warrington, in the county of Lancaster.

## Births, Marriages, and Deaths.

### BIRTHS.

BENHAM.—On Nov. 26th, at 72, Sackville-road, Hove, to Dr. and Mrs. Charles Benham, a daughter.  
 DRABBLE.—On Nov. 22nd, at the Manor House, Walton-on-Thames, the wife of George White Drabble, M.A., M.B., B.C. Cantab., of a daughter.  
 FERNANDES.—On Nov. 20th, at Ackworth, Yorkshire, the wife of Ramsden W. L. Fernandes, M.B., C.M. Edin., of a daughter.  
 ROGER-SMITH.—On Nov. 21st, at College-terrace, Hampstead, the wife of Hugh Roger-Smith, M.D. Lond., of a son.  
 WEAVER.—On Nov. 19th, at Yutton, Roe-lane, Southport, the wife of J. J. Weaver, M.R.C.S., L.S.A., of a son.

### MARRIAGES.

McLOUGHLIN—HARRISON.—On Nov. 21st, at St. Mary's, Great Chart, Kent, Captain George Somers McLoughlin, D.S.O., R.A.M.C., to Audrey Katharine, eldest daughter of the Rev. Alban H. Harrison, Rector of Great Chart.  
 RYALL—COLLIER.—On Nov. 23rd, at St. George's Church, Hanover-square, W., Charles Ryall, F.R.C.S., to Frances Mary, younger daughter of the late Thomas Collier, J.P.  
 ZIMMERMANN—WATLING.—On Oct. 26th, at Holy Trinity Church, Murree, Punjab, India, Major B. F. Zimmermann, R.A.M.C., to Ethel Marian, eldest daughter of the late Colonel J. T. Watling.

### DEATHS.

BAILEY.—On Nov. 24th, at Ampton-street, W.C., John Andrew Bailey, M.R.C.S., L.S.A., aged 72 years.  
 KING.—On Nov. 25th, at Boyfield House, Moulton, Spalding, Robert King, M.B. Cantab., F.R.C.P. Lond., aged 59 years.  
 PRINCE.—On Nov. 25th, at 10, Warwick-road, Maida Hill, W., after a short illness, Arthur Prince, M.R.C.S., L.R.C.P., in his 67th year.  
 WILDBORE.—On the 26th inst., at his residence, 2, Brunswick-road, Hove, Sussex, Frederick Wildbore, second son of the late Robert Wildbore, of Tilton-on-the-Hill, Leicestershire, late Assistant Surgeon, Coldstream Guards, aged 79 years.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## Notes, Short Comments, and Answers to Correspondents.

### WHO SHOULD PAY THE FEE?

To the Editors of THE LANCET.

SIRS,—I should be glad of your valuable opinion in the following case. A man, living with his wife and two children in furnished apartments, called and asked me to go and see his landlord who, he thought, had scarlet fever. But he, the landlord, being of the "Peculiar" faith, would have no dealings with a medical man and no medicine, but trusted to prayers and fruit. I refused to go and see the case unless the landlord sent for me himself, and advised the lodger to report the matter to the medical officer of health. The lodger came back to me and said that the landlord consented to see me. I went and found that he was suffering from a bad attack of measles and broncho-pneumonia. I gave orders that someone should come at once, it being night, and fetch some medicine from my surgery. I blamed them for not sending before, and told them that if anything happened the responsibility would rest with them and not with me. They did not send for the medicine. I went next morning and found the patient still very bad, but he had had a better night after applications to the chest. I then said that I could do no good by looking at him and that unless I could give medicine I must decline to call—unless they sent for me. They did not send for me. 1. Was I right in not attending first message? 2. Am I right in not calling again? Can I recover fees for night and morning attendances?

I am, Sirs, yours faithfully,

Nov. 27th, 1901.

BRIDGE.

\*.\* It seems to us that our correspondent has throughout acted properly. 1. The first call to the patient came from the lodger, and, in face of the patient's known objection to receiving medical attention, could hardly be regarded. A patient in extreme danger can be treated willy nilly, but it is impossible for a medical man to visit professionally a person who, being in full possession of what wits Providence has given him, declines to be visited. 2. When the patient disregarded the instructions given to him and failed to send for the medicine the medical man was right to decline further attendance. No purpose is served by giving instructions that are not obeyed, but it is proper and humane to make it clear that the medical man will again take charge of the case when the patient signifies willingness to comply with the treatment. 3. We are not quite sure from our correspondent's letter if the patient sent for him. But if he did, of course he should pay for such attendance as he received up to the time when the medical man was compelled to relinquish the case.—ED. L.

### DRUGGIST, DISPENSING CHEMIST, OR PHARMACIST?

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 23rd, p. 1464, under "Short Notes, Comments, &c.," I notice that you say that all druggists should make a habit of returning prescriptions, &c. Do you not think it would be better to call a dispensing chemist a "pharmacist" instead of a druggist? There is considerable difference between a druggist and a chemist and druggist. A druggist vends drugs without any legal qualifications whatever; members of our corporation who have an exceedingly severe pupillage and stringent examination to pass before qualifying to dispense try to raise its tone, and the word "Pharmacist" is more appropriate to use, as in France the "Pharmacien." I am afraid that your note would lead your readers to suppose that any druggist, or vendor of herbs, &c., is qualified to dispense physicians' prescriptions, which are invariably returned to the patient by a pharmacist. I trust that you will be able to find space for this reply, which is of some moment to we poor "pharmacists."

I am, Sirs, yours faithfully,

J. O. CROYDEN

(John D. Marshall, Succr.).

Wigmore-street, W., Nov. 23rd, 1901.

### WANTED—A SUGGESTION FOR TREATMENT.

To the Editors of THE LANCET.

SIRS,—Can any of your readers give me some suggestion as to treatment during the attack in a patient suffering from bronchial asthma for the last two or three years? He is a lad who is little removed from a state of chronic invalidism and has periodic attacks of a very severe nature. These sometimes last for two or three days, during which there are acute exacerbations of most distressing dyspnoea. He has been under my care for about six months and I have been in the habit of injecting quarter-grain doses of morphia, either alone or with  $\frac{1}{16}$  grain of atropine. I frequently at the same time relieve the immediate urgency of the symptoms by chloroform inhalations. I may say that I have given iodide of potassium a good trial between the attacks. I have also put him upon a vegetable diet with a modicum only of meat. He has been taking malt and cod-liver oil. There is considerable emphysema, consequent, I take it, upon the asthma.

Now, I cannot think that it is a good thing to keep giving this young man morphia each time that he has an attack, not to mention the chloroform, and I am somewhat driven into a corner if I hold my hand with these two remedies which certainly give prompt relief. Now it has occurred to me that oxygen gas might be of some use, and it may be that some of your readers have tried it. If they have done so, would they be kind enough to give me the results of their experience? I am bound to confess that it would be somewhat empirical to give this gas, as everyone knows the lungs are, as it were, already overfull of air of some sort, and it is rather the difficulty of expiration than that of getting air in which is the chief matter in an asthmatical attack. But still there is at the same time such obvious faulty aeration of the blood, as evidenced by the cold sweat and pale colour of the face, that I think it is quite possible oxygen might have a beneficial effect. Should this be so and should it be capable of cutting short the attack we are straightway possessed of a much more satisfactory therapeutic agent than either the morphia or the chloroform. Thanking you in anticipation, should you be able to find a place for the above.

I am, Sirs, yours faithfully,

Nov. 28th, 1901.

M.B. LOND.

### MEDICAL WITNESSES' FEES.

To the Editors of THE LANCET.

SIRS,—Would you kindly inform me in your next issue in Answers to Correspondents whether a surgeon subpoenaed by the Crown in a criminal case is entitled to a fee and expenses before he may be sworn, and, if so, to how much?

I am, Sirs, yours faithfully,

Nov. 28th, 1901.

T. G.

\*.\* We think that the fee and expenses may be claimed before the witness is sworn, but the amount to be claimed depends upon the nature of the court.—ED. L.

### AN EIGHTEENTH-CENTURY PRESCRIPTION FOR THE BITE OF A MAD DOG.

In the sixth volume, just issued by the Historical Manuscripts Commission, of the report on the manuscripts of the Duke of Portland, K.G., preserved at Welbeck Abbey, appears the following letter from George Harbin to the Earl of Oxford at Wimpole:—

"Dec. 19, 1732.

"About a fortnight ago Lord Portmore, having been bit by a mad dog, came to this town to consult Dr. Mead, who has disciplined him according to the annexed receipt. His Lordship continues very well, without the least sign that the bite is like to have any consequences.

"Dr. Mead's prescription: Let him lose 10 ounces of blood from the arm. Then take of grey ground liver wort (*Lichen cinereus sylvestris*) one drachm in powder, and of black pepper one scruple in half a pint of cow's milk every morning, to four doses. He must also go into a cold spring every morning for a month together, dipping all over, and staying in about a minute; and then three times a week for a fortnight after."

It may be assumed that the bite did not have "any consequences," as Lord Portmore's name appears in a list of Lord Oxford's visitors in Dover-street about 18 months later—i.e., July 12th, 1734.

### THE LONDON M.D. EXAMINATION.

To the Editors of THE LANCET.

SIRS,—Can any of your readers inform me as to the best books to read for the London M.D. examination, more especially on psychology and mental diseases?

I am, Sirs, yours faithfully,

Nov. 23rd, 1901.

M. W.

### FRIENDLY SOCIETIES AND THEIR MEDICAL AID INSTITUTIONS.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 16th, p. 97, there appears an advertisement asking medical men who intend applying for the medical officership of the Rotherham Friendly Societies Medical Aid Association to communicate firstly with the advertiser. Probably this is the outcome of some differences between the medical men and clubs in the district. Will you permit me to explain briefly "the meaning of," and legal position of, a "friendly societies medical institution"? Where there has been some disagreement between clubs and their various medical officers, or where, as often happens, the clubs think that they will get better medicines and better attention if they engage a medical man who will agree to give his whole time to the members, the clubs then form an institution in this way. Firstly, the clubs must all unanimously agree to the scheme; having done so, one intelligent, business-like man is selected by each club to represent that club at the yearly meeting. Now suppose that there are 40 or 50 clubs, then out of these 40 or 50 delegates, as they are called, 18 are elected to form a monthly management committee. The 18 members include a secretary, treasurer, two trustees, and two auditors. They then proceed to "register the institution under the Friendly Societies Act" and at once secure a medical officer, or medical officers, according to their membership. Every penny received by the institution committee from the lodges connected with it, and every penny spent by them in salaries, drugs, horse-hire, repairs, &c., must be clearly shown on the balance-sheet tabulated by the secretary of the institution, verified by the auditors, then submitted

to the Government Auditor at Somerset House, and must finally have the seal of the Registrar-General of Friendly Societies affixed, showing that it has received his approval. I should like to show this advertiser and other medical men who do not exactly understand the strong position these places hold that these institutions enjoy many little concessions which they might well envy. I will name three or four. We are exempt from all income-tax upon the very premises we occupy, and upon our savings. We are exempt from postage in any business correspondence between the institute and the Registrar-General. Bills we pay by cheque are "unstamped cheques"; and, further, we can pay or receive amounts over £2 on unstamped cheques or receipts. In fact, once an institution is formed and properly registered, there is no medical man, however great and influential, there is no medical body such as the local medico-surgical society or medical union that can upset or in any way interfere with its legitimate work and influence. There are scores of institutions all over the country, and these have a registry at York. On the register are names of well-qualified men ready to fill up a vacancy or take up a new position. Many are married assistants anxious to secure a resident's post, as this means a good house free of all rates; coals, lights, &c., and £280 to £350 per annum, all drugs, and dispenser and conveyance are found him. Sir W. Foster and Dr. J. G. Glover saw clearly how intensely foolish it would be to attack these places. There is nothing whatever illegal in a body of men getting the exclusive services of a medical gentleman if they so desire. In conjunction with thousands of my brother Odd-fellows I want to see a better spirit exist between clubs and their surgeons. I have always held that our surgeon is worthy of respectful and liberal treatment and a free hand, and while saying this I would like to point out to the gentleman whose advertisement appears in THE LANCET of Nov. 16th that if he is anxious to prevent the establishment of an institution in his district or to prevent the institute getting a medical officer he had better firstly set about to destroy the Act of Parliament which legalises the existence of these places and the Act which gives to the management and members very many concessions which medical men and other institutions will never enjoy.

I am, Sirs, yours faithfully,

Nov. 20th, 1901.

C. W.

#### A CASE OF MALINGERING.

To the Editors of THE LANCET.

SIRS,—The rascal with the laparotomy scar (see THE LANCET of Nov. 9th, p. 1314, and 23rd, p. 1463) was in Addenbrooke's Hospital last September after an alleged injury to his abdomen. He passed blood in his urine, vomited, sweated, and registered a high temperature. He became so outrageous in his language and violent in his ways that he was considered to be a lunatic. Having threatened the life of the house surgeon he was removed to Fulbourn Asylum. On his discharge from the asylum he obtained 10s. on false pretences from a charitable society. The man was a terror to the nurses and a nuisance to the staff.

I am, Sirs, yours faithfully,

Cambridge, Nov. 26th, 1901.

GEORGE WHEBBY.

#### THE INFECTIVE PERIOD IN MUMPS.

To the Editors of THE LANCET.

SIRS,—The duration of infection in mumps is a subject on which medical men do not seem to agree. I should like to have opinions from some of your readers. In a recent outbreak of mumps in a school with both boarders and day pupils some of the parents were annoyed that different practitioners gave varying periods for isolation. One said 14 days, another 21 days. My belief is that both of these periods are too short, but it is difficult to prove. The incubation period is, of course, easy to determine, and that often is as much as from 21 to 23 days. I am told that in a Board School some few miles from here during a recent epidemic children were allowed to attend school while there were cases in their homes and that children were also permitted to return to school 10 days from the onset of an attack. It has been my custom hitherto not to let children from an infected house mix with others, but possibly this is unduly strict. Of course it is not satisfactory that one boy is thought free from infection in 10 days and another not for four weeks. Had there been any persistent glandular swelling one might understand the discrepancy, but such was not the case.—I am, Sirs, yours faithfully,

Nov. 22nd, 1901.

A. C. WILSON, M.B., Ch.B. Vict.

#### INNOVATIONS IN CYCLING.

To the Editors of THE LANCET.

SIRS,—As doubtless many practitioners, like myself, have taken up cycling as a means of health and recreation, I should like to draw the attention of my brethren of the wheel to the advantages which I have derived from the adoption of long cranks and high gear, as advocated, I believe, by Colonel Crompton. Much against my will I was persuaded last summer to order a new bicycle fitted with eight-inch cranks and 81-inches gear, my previous machine having six-and-a-half-inch cranks and 66½-inch gearing. The result has been to me a pleasant revelation, as with this new machine I could go faster with less exertion, climb hills with greater ease, and accomplish long journeys—over 70 miles—with less sense of fatigue and stiffness than I had ever done before. Apart from this the maintenance of high speed with the slow leisurely movements of the legs, is very

pleasant compared with the hurry-scurry of the quick revolutions of the pedals, which are neither pleasant nor dignified. In fact, long cranks and high gear have given me quite a fresh interest in cycling and have had the effect of reviving a waning enthusiasm for the pastime. I had been told that high gears are only for the strong and that long cranks are impossible without a proportionate length of leg. But among those who corroborate in every particular my favourable experience with long cranks and high gear are persons of both sexes, of all heights, and varying degrees of strength and muscular power. The strange part of it, however, is that though the advantages are manifest to all who give them a trial, there is only one firm who recommend long cranks and build special frames with long wheel base for the accommodation of the extra length of crank.

I am, Sirs, yours faithfully,

West Norwood, S.E., Nov. 25th, 1901. J. A. AUSTIN, M.D. Aberd.

#### "INOCKILATION."

To the Editors of THE LANCET.

SIRS,—The inclosed notice which I have copied may be of special interest at this time.

I am, Sirs, yours faithfully,

Highbury New-park, N., Nov. 22nd, 1901. J. LANETON HEWER.

[INCLOSURE.]

Notice appearing in the Oxford Journal of Feb. 25th, 1758:—

"February the 11th, 1758.

"I, George Ridler near Stroud in the County of Gloucester Broad-weaver at the dealer of peepel hereabout do give Nautis. That I have Inockilated these too Seasons past between 2 and 300 for the Smale Pox and but too or three of them died—A mainy peepel be a feared of the thing but evaith it is No More than Scrattin a bit of a haul in their Yarm A pushin in a peece of Skraped rag dipt in Sum of the Pokey Matter of a Child under the distemper—That Every body in the Nasion may be sarved I Will God Willin Undertake to Inockillat them with the pervizer they will take too Purges before hand and loose a little blud away, for half a Crown a head; And I will bould to say Noo body goes beyond me.

"N.B. Poor Volk at a Shillin a head but all Must pay for the Purgin."

#### ANTI-RHEUMATIC RINGS.

To the Editors of THE LANCET.

SIRS,—Some of your numerous readers must have come across patients wearing "anti-rheumatic" rings, and I dare say they have, in common with me, classed those ornaments with the raw potato in the pocket, the silk string round the wrist, and the innumerable other amulets for the cure of this difficult complaint. An intelligent and thoughtful patient, however, tells me that the ring is supposed to draw "acid crystals" from the blood, and hence its power. He showed me a brown powder that he had scraped from the inside of the ring, and this had accumulated in a single night, and he suggested that this powder was similar to the chalk stones that had formed at his finger-joints. Such an action did not seem impossible, although such a chemical action is not likely. One could not help suggesting that two rings, or even a cuirass, or panoply, of the metal would in that case be even more efficacious in bad cases. To set his mind at rest, and to satisfy my own curiosity, I submitted the scrapings to Mr. Stoddart, Public Analyst for Bristol, and I inclose a copy of his reply, which may be of interest to some of your readers.

I am, Sirs, yours faithfully,

Ilfracombe, Nov. 28th, 1901.

O. CLAYTON JONES, M.B. Oxon.

[COPY.]

F. Wallis Stoddart, F.I.C., F.C.S.,

Public Analyst for City and County of Bristol,

Lecturer in University College, Bristol.

Western Counties Laboratory, Bristol,

Nov. 25th, 1901.

SIR,—I have examined the powder received from you on the 16th inst. and find that it consists practically entirely of hydrated ferric oxide, and, so far as the limited quantity of material would allow me to determine, contained no other metal. I could obtain no well-marked reaction for uric acid and as the tests for this substance are very delicate, it may be concluded that the quantity present, if any, must be exceedingly minute—less, indeed, than I should have anticipated in the case of rust formed in contact with the human skin. Of course, it is possible that the ring you describe is composed of more than one metal and that the most oxidisable one undergoes the greatest amount of change.

Yours faithfully,

(Signed) F. WALLIS STODDART.

Dr. O. Clayton-Jones, Ilfracombe.

\* \* \* An analysis of a similar ring was made in THE LANCET Laboratory and was published in our issue of March 2nd, 1901, p. 678.—ED. L.

#### DOUBTFUL COMPLIMENTS.

To the Editors of THE LANCET.

SIRS,—My attention has been called to a note in THE LANCET of Nov. 23rd, p. 1463, in which you state with reference to my recently issued invitation to yourself and others to spend a week in Grindelwald or Rome, that "you do not think it right for a tourist agency to

conduct its business in this manner." Your criticism would have had more weight if you had explained the grounds upon which it is founded. You admit yourself that the conditions of the offer are perfectly above-board, and that we "make it quite clear why this offer is made." The calculation which you make is not fair to us. The advantage which we offer to medical men is that if they pay the price of an ordinary return ticket, they will receive, without any further cost to them, the following accommodation: in the case of the Italian tour, one day's hotel accommodation at Turin, 9s. 9d., and seven days' pension in Rome, amounting in all to about £3 5s. In the case of Grindelwald, seven days' pension at 8s. a day—i.e., £2 16s. As we state frankly that our object is to induce medical men who are often asked to recommend the best method of travelling for invalids, to test the advantages of our arrangements, and as we offer a real reduction, the value of which is clearly set forth in the conditions of the invitation, I fail to see what grounds you have for your criticism. I should have been very grateful for the gratuitous advertisement you have given me if you had refrained from charges which you cannot substantiate.

I am, Sirs, yours faithfully,  
Buston, N.W., Nov. 25th, 1901. HENRY S. LUNN, M.D. Dub.

\* We fail to see in what way our calculation is unfair. Dr. Lunn's card states: "The invitation is strictly personal and cannot be transferred or extended to members of the guests' families, who must pay the ordinary rates of £17 17s. first-class ..... for the Rome tour." The "invitation" price for a first-class return tour to Rome is £16 1s. 8d., and therefore the advantage of an invitation measured in money is £1 15s. 4d. As we read the card the £17 17s. includes hotel accommodation as much as does the £16 1s. 8d., for Dr. Lunn states that £16 1s. 8d. is the rate at which an ordinary return ticket can be purchased. The object of the offer is evidently to induce medical men to advertise to their patients the advantages of Dr. Lunn's system. If medical men think it desirable to do this they may be trusted to do it without the offer suggested in the invitations.—Ed. L.

#### LIP-READING.

To the Editors of THE LANCET.

SIRS,—I shall be much obliged if you will kindly tell me through the columns of THE LANCET the best book from which "lip-reading" can be learnt, the price of the book, and where it can be obtained.

I am, Sirs, yours faithfully,  
Nov. 26th, 1901. BOGIE.

\* The most recent books on Lip-reading are by Miss Isabel Pollock (Stimpkin, Marshall, and Co., Paternoster-row, London, E.C., price 6d.), and by Miss Boulton, Member's Mansions, Victoria-street, London, S.W.—Ed. L.

#### RE-VACCINATION.

To the Editors of THE LANCET.

SIRS,—I believe it is necessary for public vaccinators to vaccinate infants in four places. Does this also apply to revaccinations? Your opinion would oblige.

I am, Sirs, yours faithfully,  
Nov. 19th, 1901. CALF.

\* Although the Local Government Board have not regarded it necessary to issue instructions in respect of the number of insertions of lymph to be aimed at in revaccination, we believe that the Board expect public vaccinators to perform this operation as thoroughly as in the case of primary vaccinations.—Ed. L.

**Fairplay.**—There is no harm in sending the circular as is suggested to the local medical men, but precautions will have to be taken in the matter of the wording. It must be made clear that the patients remain under their own medical men while a portion of their treatment is in "Fairplay's" hands.

**Bacillus.**—Many such leaflets are published. Our correspondent might apply to the National Society for the Prevention of Consumption and Other Forms of Tuberculosis, 20, Hanover-square, London, W.

**W. H. B.**—No general rules can be laid down, but if our correspondent will state a particular case and the details are of sufficient medical interest we will endeavour to help him.

**Practice.**—Division of money earned or taken during the introduction period must be made the subject of special arrangement. No general rules can cover all cases.

**Orthodox.**—If our correspondent will forward a bottle of the preparation which he mentions we shall be happy to examine it.

**Brussels.**—We do not know.

**ERRATA.**—In the annotation headed "The Antitoxin Treatment of Diphtheria at Leicester" which appeared at p. 1433 in our issue of Nov. 23rd, the date of the issue of the *Weekly Times and Echo* from which we quoted should have been Nov. 2nd and not "Sept. 22nd."—On p. 544 of our issue of August 24th, col. 1, line 15 from foot, the word "Alimentary" in the title of Dr. J. Rivière's paper should be omitted.—In col. 2, in Dr. Rivière's remarks, the words "He used even more powerful currents than did Mr. Williams" should be omitted.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received:—Aberdeen Daily Journal, Modern Society, Liverpool Courier, Warrington Observer, Hereford Journal, Wills Standard, Stirling Observer, Hampstead Express, Sussex Daily News, Eastern Morning News (Hull), Hampshire Advertiser, Blackburn Telegraph, Ilkerton Pioneer, Nelson Chronicle, Norwich Press, Weymouth Times, Stalybridge Standard, Evening Standard, Oxford Times, South Africa Daily Telegraph, Sanitary Record, Kentish Mercury, Mining Journal, Hertfordshire Mercury, Dorset County Chronicle, City Press, Le Courrier de la Presse (Paris), Local Government Chronicle, Surrey Advertiser, Halifax Guardian, Local Government Journal, Ipswich Journal, Ormskirk Advertiser, Fife Journal, Jersey Express, Eekington Express, Boston Independent, Weekly Free Press and Aberdeen Herald, Devon Evening Express, Evening News (Portsmouth), Daily Express (London), Ramsgate Gazette, South Wales News, Reading Mercury, &c.

#### METEOROLOGICAL READINGS.

(Taken daily at 8.20 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 26th, 1901.

Date.	Barometer reduced to Sea Level and 59° F.	Direction of Wind.	Rain-fall.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.20 a.m.
Nov. 22	29.88	S.W.	0.07	53	49	46	46	47	Overcast.
" 23	30.39	N.E.	0.12	64	45	35	36	36	Overcast.
" 24	30.65	S.W.	...	66	42	33	32	34	Foggy.
" 25	30.60	E.	...	58	44	34	33	35	Hazy.
" 26	30.48	E.	...	53	46	35	40	43	Cloudy.
" 27	30.39	N.E.	0.01	57	48	41	41	42	Cloudy.
" 28	30.27	NNW	...	...	48	42	42	44	Cloudy.

## Medical Diary for the ensuing Week.

#### OPERATIONS.

##### METROPOLITAN HOSPITALS.

**MONDAY (2nd).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynaecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopaedic (2 P.M.), City Orthopaedic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

**TUESDAY (3rd).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**WEDNESDAY (4th).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopaedic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

**THURSDAY (5th).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynaecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**FRIDAY (6th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square, (9.30 A.M.), City Orthopaedic (2.30 P.M.).

**SATURDAY (7th).**—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

## SOCIETIES.

**MONDAY (2nd).—OTOLOGICAL SOCIETY OF THE UNITED KINGDOM** (11, Chandos-street, Cavendish-square, W.).—4.30 P.M. Annual Meeting. Election of Officers and Council for the next season. Cases and Specimens will be shown by Mr. R. Lake, Dr. Cobble-dick, Dr. W. Milligan, Dr. D. Grant and Mr. C. A. Ballance, Mr. C. A. Ballance, Dr. H. Tilley, Mr. F. C. Abbott, Dr. U. Pritchard, Mr. C. H. Fagge, Mr. L. A. Lawrence, Dr. G. Cathcart and Mr. C. A. Ballance, and Mr. A. Cheastle.

**ROYAL BRITISH NURSES' ASSOCIATION** (10, Orchard-street, W.).—5.30 P.M. Address:—Dr. Jane Walker: The Open-air Treatment of Consumption.

**SOCIETY OF ENGINEERS** (Royal United Service Institution, Whitehall).—7.30 P.M. Paper:—Mr. H. A. Roehling: The Sewage Question during the last Century.

**TUESDAY (3rd).—PATHOLOGICAL SOCIETY OF LONDON** (20, Hanover-square, W.).—8.30 P.M. Mr. H. T. Butlin will open a Discussion on Lymphadenoma in its Relation to Tuberculosis. Dr. F. W. Andrewes, Prof. J. McFadyen, Dr. L. Dickinson, Mr. Foulerton and others will take part.

**WEDNESDAY (4th).—OBSTETRICAL SOCIETY OF LONDON** (20, Hanover-square, W.).—8 P.M. Specimens will be shown by the President (Dr. Horrocks), Mr. Maxwell, Dr. Wilson, Dr. A. Routh, Dr. Stannus (introduced by Dr. Tate), and Dr. Lockyer. Dr. Griffith will show a Person of Uncertain Sex. Paper:—Dr. R. Sanderson: A Case of combined Vaginal and Abdominal Hysterectomy for a Pregnancy of four and a half months complicated by Cancer of the Cervix.

**THURSDAY (5th).—HARVEIAN SOCIETY OF LONDON** (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Mr. C. W. Mansell Moullin: Some Unusual Effects of Moveable Kidney.

**CHILDHOOD SOCIETY** (Library of the Sanitary Institute, Margaret-street, W.).—8 P.M. Lecture.

**RÖNTGEN SOCIETY** (20, Hanover-square, W.).—8.30 P.M. Mr. J. H. Edwards: Bullets and their Bilets: Experiences with X Rays in South Africa.

**NORTH-EAST LONDON CLINICAL SOCIETY** (Tottenham Hospital).—4 P.M. Clinical Cases.

**FRIDAY (6th).—WEST LONDON MEDICO-CHIRURGICAL SOCIETY** (West London Hospital, Hammersmith-road, W.).—8.30 P.M. Clinical Meeting.

**WEST KENT MEDICO-CHIRURGICAL SOCIETY** (Royal Kent Dispensary, Greenwich-road, S.E.).—8.45 P.M. Dr. J. F. Goodhart: General Practice and Original Research. (Purvis Oration.) Conversazione. Exhibitions of Lantern Views of Foreign Health Resorts, Electrical and Scientific Apparatus, Surgical Instruments, Therapeutic Preparations, Diabetic Foods, &c.

**LARYNGOLOGICAL SOCIETY OF LONDON** (20, Hanover-square, W.).—5 P.M. Cases will be shown by Mr. Lawrence, Mr. Lake, Dr. Kelson, Dr. Horne, Dr. Potter, and Mr. Waggett.

## LECTURES, ADDRESSES, DEMONSTRATIONS, &amp;c.

**MONDAY (2nd).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC** (22, Chancery-street, W.C.).—4 P.M. Dr. J. Galloway: Clinique. (Skin.)

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Lloyd: Anæsthetics in Rectal Operations.

**TUESDAY (3rd).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC** (22, Chancery-street, W.C.).—4 P.M. Dr. J. Taylor: Clinique. (Medical.)

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. S. Taylor: Medical Anatomy.

**NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC** (Queen-square, Bloomsbury).—3.30 P.M. Mr. Horsley: Surgery of the Nervous System.

**WEDNESDAY (4th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC** (22, Chancery-street, W.C.).—4 P.M. Mr. R. Harrison: Clinique. (Surgical.)

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Eccles: Surgical Anatomy.

**LONDON THROAT HOSPITAL** (204, Great Portland-street, W.).—5 P.M. Mr. A. Thorne: Minor Operations and Manipulative Methods (Post-Graduate Course.)

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST** (Brompton).—4 P.M. Dr. Acland: Bronchiectasis.

**CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL** (Gray's Inn-road, W.C.).—8 P.M. Dr. P. Jakins: Diseased Conditions seen with the Laryngoscope.

**THURSDAY (5th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC** (22, Chancery-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.)

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Robinson: Uterine Hemorrhage.

**THE HOSPITAL FOR SICK CHILDREN** (Gt. Ormond-street, W.C.).—4 P.M. Dr. Hutchison: Medical Consequences of Adenoid Vegetations.

**CHAMBERLAIN HOSPITAL**.—4 P.M. Mr. Wallis: Demonstration of Surgical Cases. (Post-Graduate Course.)

**FRIDAY (6th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC** (22, Chancery-street, W.C.).—4 P.M. Dr. St. Clair Thomson: Clinique. (Throat.)

**POST-GRADUATE COLLEGE** (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Abraham: Skin Cases.

## EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

## MANAGER'S NOTICES.

## TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsgagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid and not to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.	TO THE COLONIES AND ABROAD.
One Year ... .. £1 12 6	One Year ... .. £1 14 8
Six Months ... .. 0 16 3	Six Months ... .. 0 17 4
Three Months ... .. 0 8 2	Three Months ... .. 0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or on any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and Agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

### Communications, Letters, &c., have been received from—

**A.**—Mr. R. J. Albery, Lond.; Messrs. Allen and Hanburys, Lond.; Association of Public Vaccinators of England and Wales, Lond.; Organising Secretary of; Messrs. R. Anderson and Co., Lond.; Anglo-American and Continental Pharmaceutical Co., Lond.  
**B.**—Mr. C. J. Bond, Leicester; Dr. J. Braithwaite, Leeds; Dr. G. H. Broadhurst, Manchester; Mr. J. B. Bannolker, Ahmedabad; Mr. F. Barracough, Leeds; Dr. J. Brookhouse, Nottingham; Mr. G. Brown, Lond.; Messrs. Burroughs, Wellcome, and Co., Lond.; Mr. S. H. Benson, Lond.; Messrs. Bedford and Co., Lond.; Mr. C. L. Bedford, Birmingham; Messrs. C. Baker and Sons, Lond.; Messrs. Baillière, Tindall, and Cox, Lond.; Bristol Eye Hospital, Secretary of.  
**C.**—Messrs. S. Clark and Co., Lond.; Dr. J. Clegg, Urnston; Cortland Wagon Co., Lond.; Mr. J. Black Cameron, Lond.; Cantab, Lond.; Messrs. J. W. Cooke and Co., Lond.; Messrs. J. and A. Churchill, Lond.; Dr. R. Craven, Blackburn; Dr. O. Clayton-Jones, Ilfracombe; Dr. R. Cameron, Cardiff; Mr. H. Gordon Cumming, Lond.; Dr. C. J. Cullingworth, Lond.; Mr. F. W. Collingwood, Lond.; Messrs. Cassell and Co., Lond.; Messrs. Carfax and Co., Lond.  
**D.**—Messrs. Down Bros., Lond.; Messrs. Davis and Orntien, Lond.; Mr. E. Darke, Lond.; Down District Asylum, Downpatrick, Resident Medical Officer of; Mr. L. Dudgeon, Lond.; Dr. J. H. Davies, Leicester; Dowdeswell Galleries, Lond.; Mr. D. Donald, Aldershot; D. W. K. L.  
**E.**—Dr. J. H. Ewart, Folkestone; Messrs. Ellen and Co., Lond.  
**F.**—Dr. J. Forrester, Glasgow; Folkestone Medical Society, Hon. Secretary of; Finsbury, Medical Officer of Health of.  
**G.**—Mr. D. R. Grundy, Lond.; Mr. T. W. H. Garstang, Altrincham; Messrs. Gilbert, Kilmington, and Co., Lond.; Mr. A. Gardner, Paisley.  
**H.**—Mr. Bishop Harman, Lond.; Dr. A. Hamilton, Windermere; Mr. J. L. Hamilton, Brighton; Dr. H. H. H. Hamilton, Glasgow; Miss Ethel Hinson, St. Leonards-on-Sea; Messrs. S. Hildesheimer and Co., Lond.; Dr. J. Langton Hewer, Lond.; Messrs. Hirschberg and Oestergart, Berlin.  
**I.**—International Plasmon, Lond.; Mr. E. C. B. Ibbotson, Lond.; Invernith Lodge Retreat, Dumfries, Principals of; Insurance Journal, Lond.

**J.**—Rev. E. Jerman, Nantelwyd; Dr. A. E. Jerman, Erith; Mr. T. R. Jessop, Leeds; Mr. B. Jones, Bristol; J. M. K.  
**K.**—Kensington, Town Clerk of; Messrs. R. A. Knight and Co., Lond.  
**L.**—Dr. C. E. M. Love, Crewe; Liverpool Medical Club, Hon. Secretary of; Leslie's, Ltd., Lond.; Lee's Advertising Agency, Lond.; Lancaster County Asylum, Clerk of; London University, Registrar of; London and Counties Medical Protection Society, Financial Secretary of.  
**M.**—Mr. W. H. Martindale, Lond.; Middlesex Hospital, Secretary of; Dr. J. Moore, Brockley; Dr. A. M. Martin, Newcastle-on-Tyne; Miss Miles, Kenton; Medical Graduates' College, &c., Lond.; Secretary of; Dr. E. Mackey, Hove; Mr. E. Merck, Lond.; Dr. W. McCallin, Lond.; Mr. J. McMurtrie, Glasgow; Messrs. Mather and Crowther, Lond.; Dr. W. J. McCauley, Birmingham; Dr. J. F. D. Macara, Durness, Lairg; Medical Officer of Health of; Bristol; Meyrowitz Manufacturing Co., New York; Mr. W. McGee, Dublin.  
**N.**—Notts County Lunatic Asylum, Sneyton, Clerk of; Colonel J. Lane Notter, Aldershot; Nurses' Cooperation, Lond.; Secretary of; Dr. James Neill, Oxford; Mr. H. Needes, Lond.; Mr. J. C. Needes, Lond.  
**O.**—Messrs. Ogdens, Liverpool; Mr. E. S. Ockenden, Hove.  
**P.**—Mr. F. Pamphill, Gloucester; Messrs. A. and F. Pears, Lond.; Physical Development Supply Co., Lond.; Mr. J. Padman, Lond.; Dr. L. C. Parkes, Lond.; Dr. J. B. Pettigrew, St. Andrews; Protene Co., Lond.; Mr. C. H. W. Parkinson, Wimborne; Dr. F. Cradock Palmer, Alverstoke; Messrs. Peacock and Hadley, Lond.  
**R.**—Dr. D. Roxburgh, Lond.; Royal College of Surgeons of England, Lond.; Secretary of; Dr. H. Riddell, Dunoon; Dr. C. Reinhardt, Ipsden; R. H.; L. Roberts, Pontypridd; Mr. J. Ritchie, Lond.; Royal Meteorological Society, Lond.; Assistant Secretary of; Dr. H. W. Reynolds, Ramsgate; Messrs. Ridges and Sons, Wolverhampton; Messrs. Reynolds and Branson, Leeds; Royal Hospital for Incurables, Dublin, Secretary of.  
**S.**—Dr. Sidebotham, Bowdon; Society of Members of the Royal College of Surgeons of England, Lond.; Hon. Secretary of; Dr. F. J. Smith, Lond.; St. Mary's Hospital Medical School, Lond.

Mr. Cyrus W. Smith, Cranham; Messrs. F. and R. Speaight, Lond.; Sussex County Hospital, Brighton, Secretary of; Scientific Roll, Director of; G. H. Sowry, Newcastle, Staffs.; Messrs. Savory and Moore, Lond.; Messrs. Street and Co., Lond.; Dr. G. Bellingham Smith, Lond.; Messrs. W. H. Smith and Son, Lond.; Mr. A. Sanders, Lond.; Dr. H. Snow, Lond.; Scholastic, Clerical, &c., Association, Lond.; Society of American Women in London.  
**T.**—Mr. G. Thleme, Leipzig; Dr. Dawson Turner, Edinburgh; Messrs. C. Taylor and Co., Lond.  
**U.**—Mr. F. Upsher-Smith, Watford.

**V.**—Dr. A. Vost, Glasgow.  
**W.**—Dr. Tucker Wise, Montreux; Messrs. Willows, Francis, Butler, and Thompson, Lond.; Wills, Ltd., Lond.; W. J. S.; West Ham Hospital, Secretary of; Dr. R. J. Warrington, Hanley; Dr. A. McCook Weir, Liverpool; Mr. D. F. Whiteley, Lond.; The S. S. White Dental Manufacturing Co., Philadelphia; Dr. J. Sim Wallace, Kingston-on-Thames; Dr. A. Whitfield, Lond.; Dr. T. Wright, Aldershot; Messrs. Whitbread and Co., Lond.; Messrs. Willing, Lond.; Dr. F. J. Woolacott, Lond.; Mr. W. L. Woolcombe, Plymouth.

### Letters, each with enclosure, are also acknowledged from—

**A.**—A. E. G. P.; A. W. H. L.; A. L. R.  
**B.**—Mr. T. G. Barton, Boscombe; Mr. F. A. Brockhaus, Lond.; Mr. A. M. Barnley, Wigston Magna; Brighton Gazette; Mr. J. T. Brickwell, Watford; General Bond, Londonderry.  
**C.**—Dr. T. Crowther, Bradford; Cooke's School of Anatomy, Lond.; Mr. A. M. Cato, Lond.; Messrs. A. H. Cox and Co., Brighton; C. A. R.; C. S. K.; Lady Charley, East Grinstead; Mr. J. H. Chaldecott, Lond.; Cheltenham General Hospital, Clerk of; Mr. J. J. Clarke, Lond.  
**D.**—Miss Deverell, Shortlands; Messrs. A. De St. Dalmas and Co., Leicester; D. D. J.; Doctor, Stroud; Mr. D. Davies, Llan-doverly.  
**E.**—Mr. W. G. Evans, Newquay; Dr. J. D. Emanuel, Birmingham; Mr. F. G. Ernst, Lond.; E. G.; Messrs. Eaton and Bulfield, Lancaster.  
**F.**—Dr. H. B. Fraser, Dundee; Mr. P. A. Forde, Dublin; F. P.; F. R. M.; F. N. D. B.  
**G.**—Mr. W. Greisel, Lond.; Messrs. Gordon and Gotch, Lond.; General Medical Council, Lond.; Registrar of; Glamorgan County Asylum, Bridgend, Clerk of; Dr. D. M. Greig, Dundee.  
**H.**—Rev. R. T. Hosken, Lond.; Mr. D. Heron, Ballynahinch; Messrs. S. Hess and Son, Lond.; Messrs. Hastings Bros., Lond.; Hotel Tariff Bureau, Lond.; Dr. W. H. Hill, Nottingham; H. Westminster; H. J. W.; Hovis Bread Flour Co., Macclesfield; Mr. D. S. Henderson, Dunoon; Mr. T. Homer, St. Helens; Mrs. H. Hertford.  
**I.**—Messrs. Idris and Co., Lond.  
**J.**—Mr. G. M. Jones, Alton; J. M.; Dr. W. O. Jennings, Paris; Messrs. James, Oliver, and Co., Lond.; J. H. A.; J. T. C. C. O. J. S. H.; J. C. D.  
**L.**—Mr. C. Lucas, Burwell; Dr. A. K. Laidlaw, Lond.; Leith Hospital, Secretary of; Dr. T. Laws, Horndon; L. W. K. E.; Messrs. C. and E. Layton, Lond.; L. R.; Mr. J. Lilwall-Cormac, Congressbury.  
**M.**—Dr. D. J. Macaulay, Halifax; Mr. B. J. Mayne, Carn Brea; Mr. P. J. Murphy, Aberdeen; Mr. D. Macdougall, Greenock; Dr. T. McLaren, Glasgow; Dr. J. McDonald, Belford; M. J.; Mr. S. B. Mason, Pontypool; Mr. S. Mackey, Manchester; Mr. P. McDonnell, Limerick; Mr. W. G. Morgan, Dwyran; M. A. L.; M. W. S.  
**P.**—Mr. Y. J. Pentland, Edinburgh; Mr. J. Parley, Launceston, Tasmania; P. J. B.; Messrs. Paton and Stephenson, Harpurhey.  
**R.**—Mr. W. L. Rhys, Aberdeen; Mr. T. F. Roberts, St. Albans; Mr. R. Rowlands, Criccieth; Rosclare Sanatorium, Secretary of; Mr. E. J. Reid, Lond.; Messrs. Rimes and Co., York; R. P. R.; Dr. R.  
**S.**—Dr. S. H. Sharpe, Dublin; Salford Royal Hospital, Secretary of; Surgeon, Startforth; Messrs. Spiers and Pond, Lond.; Messrs. Squire and Sons, Lond.; Sanitary Inspectors' Examination Board, Lond.; St. John Ambulance Association, Lond.; Stanley Hospital, Liverpool; Mr. J. P. Stonier, Northwich; Straits, Lond.; S. D. B., Lond.; Surgeon, Shepperton.  
**T.**—Mr. J. Thinn, Edinburgh; Tottenham Hospital, Secretary of; T. S. B.; T. A. L.  
**U.**—Dr. T. S. Usher, Yearndon.  
**V.**—V. B.  
**W.**—Mr. R. M. Wright, Burwell; Mr. J. Williams, Bradford; West London Medical Journal, Lond.; W. O. C.; W. F. G.; W. A. J.; W. J. O.; W. E. G.; W. J. B.; W. V. R.

EVERY FRIDAY.

# THE LANCET.

PRICE SEVENPENCE.

### SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.  
 One Year ... £1 12 6  
 Six Months ... 0 16 3  
 Three Months ... 0 8 2

TO THE COLONIES AND ABROAD.  
 One Year ... £1 14 8  
 Six Months ... 0 17 4  
 Three Months ... 0 8 8

Subscriptions (which may commence at any time) are payable in advance.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an additional advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance. Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

### ADVERTISING.

Books and Publications ... Seven Lines and under £0 5 0  
 Official and General Announcements ... Ditto 0 5 0  
 Trade and Miscellaneous Advertisements ... Ditto 0 4 8  
 Every additional Line 0 0 8  
 Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.  
 Terms for Position Pages and Serial Insertions on application.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

# Presidential Address

ON

## SOME WAR SEQUELÆ.

*Delivered before the Chelsea Clinical Society at the Jenner Institute of Preventive Medicine on Oct. 15th, 1901.*

By CHARLES A. MORRIS, C.V.O., M.A., M.B.,  
M.C. CANTAB., F.R.C.S. ENG.,

SURGEON TO KING EDWARD'S HOSPITAL, GROSVENOR HOSPITAL, AND  
CHELSEA DISPENSARY.

### INTRODUCTORY REMARKS.

GENTLEMEN,—Meeting to-night for the first time in a new session—the first session of a new century—and in a new habitation, I feel that we have much upon which we can congratulate ourselves. Starting with about a dozen original members we have session by session gradually increased our numbers until now, when our list of members has reached most satisfactory proportions. I would not have you remain content, however, until all our medical colleagues in the neighbourhood have joined our society. But the subject upon which I feel we have the greatest cause to congratulate ourselves is our close connexion with the Jenner Institute. Founded with the definite object of bacteriological study it offers us great facility to increase our knowledge of this important subject. We now have the right to hold our meetings in this comfortable, well-appointed theatre with its up-to-date arrangements of lighting and apparatus for the lantern. I believe that our society will gain in many ways by our connexion with this valuable scientific institution. It has been arranged by the help of several eminent bacteriologists to have at each of our ordinary meetings a short demonstration on various subjects connected with bacteriology illustrated in most cases by lantern slides. These are expected to occupy about 15 or 20 minutes at the beginning of each meeting and I think it will be the means of giving us both instruction and amusement. Several demonstrations have already been arranged, and when we consider how great is the number of diseases which are at present considered to have a microbic origin I think there will be no difficulty in arranging a different subject for each meeting and yet leaving the list unexhausted. For the last three years it has been our custom to set apart one of our ordinary meetings and a special meeting for an annual debate on some subject of particular interest. The subjects so far selected have been tuberculosis, acute rheumatism, and chronic rheumatism. To these meetings we have invited those who are recognised authorities on the subject to read papers or give addresses. These debates have all been most successful, they have attracted a good attendance and have been exceedingly interesting and profitable. The subject we have selected this session is "Cancer: its Origin and Nature," and we propose to reserve the ordinary meeting on March 18th and a special meeting on the preceding Tuesday, March 11th, for its discussion. There can be little doubt that cancer is a subject which elicits the widest general interest; they must be few who doubt its microbic origin, but they are also few who have had the opportunity of hearing the latest information about the disease. We have already asked several of the leading members of the profession to take part in the debate, but arrangements are hardly sufficiently advanced for me to give you particulars to-night.

Our first session in these new premises falls in an eventful year, the first of a new century during which we have lost our revered Queen after the most beneficent reign in history. But fortunately to her has succeeded a sovereign who has the interests of our profession deeply at heart and who has already shown much favour to members of our profession. The year will be memorable, also, for the war, which has lasted now for so long, and sincerely as we deplore the terrible suffering and loss that it has brought upon our country, we cannot but be interested professionally in what its long lists of sick and wounded have to teach us. As I have had some little opportunity of seeing here at home a few of its terrible results I thought it would meet with the

approval of the members of this society if I were to give a short account of some war sequelæ.

### MEDICAL CASES.

*Enteric fever.*—The medical cases in this war, as I believe has occurred in all wars, far exceed in number the surgical cases, and, as might be expected, the diseases which figure most prominently in the list are enteric fever, dysentery, and diarrhoea—all, it may be noted, intestinal affections. The first, which has for some years been endemic in South Africa, showed great epidemic virulence at one time and has throughout proved a severe tax upon the medical resources of the army. From the time of the surrender of General Cronje up to the departure of the army from Bloemfontein towards Pretoria is the period when the greatest number of cases were under treatment, but the initial stage of the epidemic has, I believe, been traced to the Modder river camp. The men were overworked and exposed, their food was limited, and the water-supply was not under the control of the sanitary officers. The disease, however, seems to have been spread by means which could not be avoided by the most careful sanitary measures—namely, by flies which swarmed everywhere and on everything and were described as a perfect plague, and, secondly, by the dust which in such a dry climate was raised by violent storms of wind and which drifted into everything and found its way into food and drink, however carefully they were protected.

One of the most interesting questions in connexion with enteric fever during this campaign is the effect of inoculation. Does inoculation render the body immune to an attack of the poison? or does it give only a partial protection? And if the latter, what effect does it have upon the course of the disease and upon the incidence of complications? The symptoms produced by inoculation vary much in degree; a number of my patients have been inoculated, mostly on board ship on their way out, and I believe all with the fluid prepared by Professor A. E. Wright of Netley. Some have told me that they have felt no effect whatever; others have had some slight tenderness, pain, and stiffness at the seat of the injection, with a local erythematous eruption but without general symptoms of illness. A few felt very ill indeed and had to keep to their beds for three or four days, with somewhat high fever and severe headache. My personal experience is small, but—although the full statistics are not yet complete—I think the undoubted feeling of those who have had much experience of the matter is that inoculation certainly does not prevent enteric fever, but that it renders the body far less vulnerable to the attack of the poison and that if the disease is taken it modifies the attack, lessening its severity and reducing the mortality. It cannot be considered a matter for surprise that inoculation does not give full immunity when we remember that an attack of enteric fever itself does not prevent a second or even a third attack. One case which interested me very much was that of an officer who had been inoculated on his way out to South Africa and who was badly wounded at Hlangwane Hill. On the ship which brought him home there were several cases of enteric fever and his nurse took the disease. He was admitted to hospital under my care on May 16th, 1900, with an empyema which was kept well drained and with a normal temperature. On May 27th his temperature rose to 101° F. in the evening and continued raised, being always higher in the evening than in the morning. At the same time the discharge from the empyema much decreased and I thought perhaps the fever was due to retention of pus. There were no other symptoms, no headache, drowsiness or diarrhoea, and yet the temperature rose and on June 4th reached 104°. Widal's reaction was reported absent, but our suspicions were aroused and he was kept on fluid food although he seemed quite well except for his fever. On the 9th, the fourteenth day of the disease, however, the characteristic spots appeared on the abdomen and the stools looked suspicious. On the sixteenth day the stools had almost a typical pea-soup appearance. He now complained of some headache, and on the twenty-first day the spleen was found to be enlarged. The temperature now began to fall; it reached normal on the twenty-third day and remained normal from the twenty-fifth day. The point in the case which struck me most was the marked absence of any feeling of illness. The patient made a good recovery without complications or relapse, and not only got quite well from his enteric fever but recovered from his empyema at the same time. The high fever seemed from its commencement to dry up the

profuse suppuration. The fever lasted 24 days, and this is a point of interest in connexion with inoculation—the average course of the fever in inoculated patients is somewhat abbreviated by, at any rate, a few days. Another case was that of an officer who got enteric fever on April 4th, 1900. He had no complications or relapse, convalesced rapidly and well, and was only ill altogether three weeks. He had been inoculated at the end of October, 1899, just five months before. A third patient got the fever in the middle of April, 1900, and came under my care in March, 1901, for a troublesome relaxation of the bowels which had continued on and off for the whole year. Apart from this complication his attack was a mild one. His inoculation was six months before—in October, 1899—and produced an attack of fever and malaise lasting 10 days. In a fourth case an officer who had not been inoculated but who had had enteric fever in 1888 was again attacked by the disease in January, 1901. He did well but had thrombosis of both popliteal and femoral veins.

*Complications of enteric fever.*—Of the complications of enteric fever I have, of course, seen none of the acute forms, but I have been much struck by the great number of men who have suffered from phlebitis and thrombosis at some time during their illness. In the large number of cases in which I have the occurrence of this condition mentioned in my notes I find that the left femoral vein was the vessel affected in every case, other veins being occasionally involved at the same time. In looking up the subject to see if I could find any confirmation of my observation I discovered that Dr. Tooth has put on record that at the Portland Hospital the condition had been very common and also that in all the cases it was in the veins of the left leg and most often in the femoral. The only other complication of enteric fever that I should like to mention is that of dry arthritis. A young fellow who had obtained a commission in one of the irregular mounted corps after much privation and hardship had enteric fever at Bloemfontein in April, 1900, and had a severe illness. He had two bad attacks of intestinal hæmorrhage and suffered severe pain in his right hip and knee-joints so bad that he could not bear to be touched. When I examined him five months later I found great pain and violent spasm in the muscles surrounding the right hip-joint upon the slightest movement of the limb, with swelling and stiffness of that joint and the right knee; the hip was slightly flexed and adducted, and there was at least one inch of shortening. Under an anæsthetic the stiffness was still present; the knee bent to a right angle, but there was only the slightest movement in the hip-joint. Many bands gave way when it was moved with force and there was a great deal of creaking. The last time I saw him he was free from pain and could walk about easily, but with a stiff hip and shortened leg. The joint had evidently been disorganised by some chronic inflammatory or trophic condition.

I have nothing particular to say about the cases of dysentery; they were numerous and in many instances left the patient with chronic troubles, such as dyspepsia and a relaxed and irritable condition of the bowels. But there is an interesting question as to the relation of dysentery to enteric fever. It is suggested that diarrhoea and dysentery produce a condition of the bowels which predisposes the patient to succumb to the attack of the typhoid bacillus, but I cannot prove anything in this respect from my notes, for as many seemed to have dysentery after enteric fever as before it.

Malaria was a complication which we often met with and which occurred in so many cases at one time that it made us feel quite nervous about touching any of the patients surgically. It came on after the smallest operations in those who were apparently perfectly healthy as well as in those who were seriously ill. The disease is reported not to exist in South Africa, and was in most of the cases probably introduced into the system in India or elsewhere and brought out by the privations of the campaign.

*Diseases due to exposure.*—A first-rate advertisement for the climate of South Africa is found when we come to consider the diseases due to exposure, for they are conspicuous by their rarity. When we remember the enormous amount of exposure to cold and wet that a soldier has to bear and which in this campaign has been borne, and the small number of cases of such diseases as bronchitis, nephritis, and rheumatism that have occurred, we cannot but feel that the bacteria of these diseases must have a bad time of it on the African veldt. One young yeoman told me that he had

had a really good time of it at the war and yet confessed that at one time his company lived and ate and slept out of doors in pouring rain and were never dry night and day for 10 days and hardly so for three weeks, and yet scarcely any of them were ill or caught cold.

*Neurasthenia.*—A most remarkable evidence of the privation, exhaustion, and mental strain that many had to pass through was seen in the cases of neurasthenia that occurred. It was really terrible to see the condition of fine, strapping men, produced in this way, which led them to shrink from the slightest touch and to shed tears like children. In one instance the patient had led a charge to take a hill summit in which none of his men ever reached the top but every individual fell dead or wounded. His leg was badly smashed and had afterwards to be amputated, but he lay out in the open for two nights and a day, constantly being peppered by the Boer bullets, from which he received several other lesser wounds and without any food or water the whole time except a biscuit which he was afraid to eat because it increased his thirst. Can one be surprised that after such an experience his pluck deserted him for a time and that he suffered from neurasthenia? Another patient took part in the memorable fight of Paardeberg. He got a sunstroke, was unconscious for one and a half hours, but returned to the fight and then seemed to have wandered away from everyone, having lost his way. He was found and brought back to hospital, but was unconscious for five days. He had at the hospital ptosis of the right eye for four or five days, followed a day or two later by numbness gradually spreading upwards from the right foot to the thigh, accompanied by cramps and later by gradual loss of power which affected the whole of the right leg. When I saw him first he could not move the right leg or flex any of its joints, and if they were flexed by force it caused great pain. There was loss of sensation to touch and pain below the knee and slightly above it. Dr. Ferrier saw him and considered it to be a case of functional paralysis, but treatment had no effect; he seemed to glory in having the battery applied so strong that it doubled him up and he left for his home unimproved and, I have been told since, has suffered very much, both mentally and bodily. I could give many other instances of neuroses produced by nerve strain, but I think these will suffice and I am anxious to turn to the surgical side.

#### VARIETIES OF PROJECTILE.

Much interest attaches to the form of the projectiles employed in this war, and especially to the variety of bullet used. The number of wounds produced by bullets are so great, compared with those produced by shells, as to render the latter comparatively unimportant. The two chief forms of shell employed are the Vickers-Maxim, or pom-pom, and the shrapnel, although a great variety have occasionally been used during the campaign. The former consists of a case containing a high explosive; the shells are fired with great rapidity and burst into many fragments on contact. The shrapnel shell weighs from 12 to 15 pounds and consists of (1) a hollow case seven or eight inches long and three inches in diameter filled with a large number—200 or more—of round leaden bullets, and (2) of a "head" containing a high explosive with a fuse attached which blows off the head in the air and sets free and scatters the bullets.

The wounds produced by these shells vary greatly, according to the part of the projectile which strikes the body. When the whole shell strikes, especially if it explodes at the time, it causes the most ghastly injuries, blowing off limbs and opening up the cavities of the body. The fragments cause lacerated and contused wounds of varying severity, and in many cases they lodge in the body and do not perforate. Almost all shell wounds suppurate. I think that it is generally recognised that shell-fire is not very dangerous to life, but is chiefly useful from its moral effect upon the troops.

#### SHELL WOUNDS.

CASE 1.—An officer of the Royal Artillery was standing near a gun on Feb. 3rd, 1900, during the battle of Vaal Krantz, when a Boer shell burst close to him. A large portion of the shell struck his right foot and caused a severe wound, nearly tearing off the anterior part. Several splinters caused lacerated wounds on the lower part of the thighs. He was taken to the field hospital where the foot was amputated by Syme's method the same day. Gangrene appearing in the stump shortly afterwards the leg was removed six inches below the knee at Mooi River. When I saw him two months

later the wound was healed, but the anterior ridge of the tibia was projecting under the thin skin and made it impossible to fit an artificial limb. The slight operation of removing this upset him; he had fever the next day, and 10 days later had rigors and sweats and caused us much anxiety. He, however, got quite well and can now walk capably with an artificial limb.

CASE 2.—Another patient was a member of the Royal Army Medical Corps who has since received the coveted honour of the V.C. He was attached to the Highland Brigade at Magersfontein and exposed himself fearlessly whilst attending the wounded. He was struck on the left cheek by a fragment of shell and for some time could not open his mouth. On examination six weeks later there were still some difficulty in moving the jaw and a swelling above and below the zygoma. A skiagraph showed a piece of shell half an inch square lodged deeply under the zygoma, but the rigidity and pain gradually disappeared and the metal was left *in situ*.

#### MODERN RIFLES AND BULLETS.

Next, as to the varieties of rifles and bullets that have been employed. This is a subject of the greatest interest, as this is really the first war in which any experience has been obtained of the results of the modern small calibre, magazine rifle firing with smokeless powder a mantled bullet which travels with enormous velocity. It had been conjectured that the mortality from this change of weapons would be enormously greater than it was in the days of the old large-bore rifles firing hardened lead bullets, and I believe that I am right in saying that some have gone so far as to say that war would become impossible for this very reason. But these prophets have by the experience of this war been proved false and wounds have not been more frequent or more severe. The most important differences between modern rifles and bullets and the older weapons are: (1) a great reduction in the calibre of the barrel; (2) a corresponding reduction in the calibre of the bullet and in its weight; (3) an increase of the initial velocity of the bullet and a flatter trajectory; (4) an increase in range and in accuracy of fire; (5) an increase in the rapidity of discharge; and (6) an increase in the number of cartridges that can be carried by the soldier. All these points may at first sight appear to be in favour of those armed with the new rifle, but on further inquiry this is found not to be the case. The reduction in the calibre of the rifle necessitates reduction of the calibre of the bullet and of its weight, and the smaller and lighter bullet has less "stopping" power than the heavier. This loss is made up for to a great extent by the greatly increased velocity, for the energy or striking force possessed by the bullet equals half the mass multiplied by the square of the velocity. But it is found by experience that the soft parts of the body offer so little resistance to the bullet that it cannot exert its full energy upon them but passes through them. Again, it is found that light projectiles lose their velocity relatively more rapidly than slightly heavier ones and that their velocities approximate more nearly at long ranges than at their initial discharge.

Out of the many rifles which have been used by the British and the Boers in this war I have chosen for the sake of simplicity and as typical the three following: the Martini-Henry, which was previously the rifle used by the British army; the Lee-Enfield, as typical of the present British rifle; and the Mauser, as that most commonly employed by the Boers.

	Martini-Henry.	Lee-Enfield.	Mauser.
Calibre of rifle barrel ... ..	0.450 inch.	0.303 inch.	0.275 inch.
Calibre of bullet ... ..	0.450 inch.	0.311 inch.	0.280 inch.
Weight of bullet ... ..	450 grains.	215 grains.	175 grains.
Initial velocity ... ..	1300 foot seconds.	2000 foot seconds.	2262 foot seconds.
Sighted to (range) ... ..	1450 yards.	2800 yards.	2187 yards.
Weight of cartridge ... ..	758 grains.	416 grains.	384 grains.

From this we see that the calibre of the rifle and of the bullet and also the weight of the bullet have been greatly diminished, whilst the initial or muzzle velocity and effective range have been greatly increased. The Lee-Enfield is effective at a range of two miles (3500 yards). The leaden bullet has had to have a mantle of some harder

material in order to enable the bullet with its increased velocity to obtain the proper spin from the grooves of the rifling. The mantle of the Lee-Enfield is made of an alloy of copper and nickel and that of the Mauser of steel plated with cupro-nickel alloy. The soft-nosed or Dum-Dum bullet has a portion of the leaden core exposed—uncovered by the mantle. The Jeffrey's bullet has a flattened end, the point being cut off, and the mantle on the shoulder is nearly cut through by four vertical slits which end short of the point. The last two are what are called "expanding" or "expansile" and have sometimes been termed "explosive," but the latter is a misleading term, as it gives the erroneous impression that the bullet contains some explosive material; a true explosive bullet, I believe, has not been proved to have been used in this war. The term "explosive," however, is often used to describe the effects of the "expansile" bullet on the structures of the body. A very similar effect is produced by an ordinary Mauser or Lee-Enfield bullet when it is distorted by striking some hard body as a stone in ricochet or a bone in the body. Now, in spite of the great velocity of the bullet, the greater accuracy and rapidity of fire, and the increased effective range of the modern rifles, wounds have not been more frequent or more severe. They have not been more frequent because of the much greater *distance* of the combatants and they have not been more severe on account of the great *humanity* of the bullet.

Mr. Makins, who was one of the consulting surgeons to the South African field force, says: "There is little ground for assuming that the change in the nature of the weapons has materially influenced the deadlines of warfare at all." Practically every organ of the body has been traversed by bullets and yet the soldier wounded has recovered, and it almost seems as if we could not now consider that any part of the body was vital in the sense that if wounded the wound was mortal.

*Humanity of modern bullets.*—I was told by an army surgeon that he had seen men who had been shot clean through the brain who very shortly afterwards seemed perfectly well, and I do not think that I am misquoting him when I say that one was walking about and even returned to duty two or three days after such an injury. The heart has been wounded and the patient recovered. One whom I saw for other injuries had a bullet through his chest which was considered by the surgeons at the time to have wounded the heart; he was for some time in a most dangerous condition with irregular and almost unaccountable pulse, but he gradually recovered from this and the other results of his wounds and is now quite well. The intestines and stomach have often been perforated by bullets with ultimate recovery, a result probably much more likely when the organs are empty. I have notes of many whose lungs and even livers were perforated without a fatal result.

CASE 3.—An officer of the Imperial Light Horse was wounded on Oct. 21st, 1899, at Elandslaagte. The bullet passed through the apex of his right lung, entering two inches from the right acromio-clavicular joint towards the middle line and just below the clavicle. It passed out three inches from the acromial process and half an inch below the spine of the scapula. He returned to duty on Dec. 6th. On Jan. 18th, 1900 (three months from his receiving his first wound), he was again wounded at the battle at Acton Homes. The bullet entered in the first intercostal space to the left of the sternum and passed out two inches below the spine of the scapula and one inch external to the vertebral border. He had severe dyspnoea and hæmorrhage into the pleural cavity which was tapped four months later and the serum was drawn off. In the latter injury the artery was evidently involved, as the pulse on that side was much weaker.

CASE 4.—Another officer was wounded at Lindley on Jan. 3rd, 1901. The bullet passed through his chest, its point of entry being an inch below and one and a half inches to the outer side of the right nipple, and its exit three inches behind the posterior axillary line and at the level of the tenth rib. This probably passed through the liver and the base of the lung. He is quite well.

These examples I might add to but I do not think it would interest you, and I think they show how humane are the injuries sometimes caused by the modern bullet. It must, of course, be taken for granted that these high velocity bullets do not track subcutaneously, as was so common in the old projectiles, but that in the great majority of cases they pass straight from the wound of entry to that of exit through every structure, even thick bones.

## ENTRANCE AND EXIT WOUNDS.

What may be called a normal wound of entry produced by one of the modern bullets when it strikes the part at right angles and has been fired from a medium range is a small circular indented orifice; it is rather less in diameter than that of the bullet that is about a third or even a quarter of an inch. When the surrounding inflammation and bruising have disappeared these wounds leave only small red spots. The redness gradually passes off and the spot becomes less visible until a few months after the injury it really requires searching for to discover it. In several cases I have found it quite difficult to find these scars, for they hardly leave more mark than an acne spot. The wounds are oval when the bullet has struck at an oblique angle or in a natural crease of the skin or upon a part where the skin is supported by some firm structure. The oval wounds vary from a wide oval to a mere slit or star.

The exit wound may be similar in character to that of entry, only slightly larger, and the skin is pushed out rather than depressed. When the wound varies in any way from these typical appearances it does so for some distinct reason. The most common cause for an alteration in the form of the entrance wound is some peculiarity of the bullet which produces it. The condition of the exit wound on the other hand depends not only on the bullet but upon the structures through which it has passed.

## HEALING OF WOUNDS.

The wounds produced by the small calibre bullet have undoubtedly healed most satisfactorily, a very large number by first intention. Only a small minority have been accompanied by suppuration, and it was very rare indeed to get anything like a septic condition. The chief reasons for this satisfactory result are the following. 1. The small skin wound produced by the bullet made it almost a subcutaneous one, the walls of the narrow track fall together, and a small scab forms on the orifice, under which it heals rapidly. 2. The climate is most favourable; the air is dry and pure and aids the formation of a scab. Even the dust seemed aseptic. 3. The early application of the first field dressing. This is carried by every soldier, stitched in his tunic, and, I believe, was thoroughly appreciated by the men; it was applied by them at once in most cases before they were even seen by the surgeon. 4. The healthy condition of the wounded. The weak and unhealthy men soon find their way to hospital and those who are sufficiently strong to stand the hard though healthy life were in the pink of condition and good subjects for the healing of wounds. 5. The injury is an aseptic one. It has been shown by Mr. Makins in his book, "Surgical Experiences in South Africa," that in spite of the dirt of the bandolier and that the hands of the men were not rendered aseptic before handling the bullet, yet when the bullet left the rifle it was probably quite free from any septic poison. Firstly, all the bullet but its point had a clean new surface given to it by the rifle barrel, and, secondly, the heat to which it was subjected was sufficient to cleanse it. 6. The rarity with which foreign bodies were carried into the wound. Even when the bullet lodged in the body it in many cases produced no suppuration.

Bullet wounds of the soft parts are practically always perforating; a small narrow track is formed with a condensed firm wall caused by the pressure of the projectile. These heal, forming tough linear scars which bind the parts together, and by their contraction and pressure interfere with the functions of neighbouring but uninjured parts. The muscles are tied together and the movements of the limbs are limited and rendered painful; the nerves are pressed upon and cause much pain and loss of function.

CASE 5.—An officer wounded at Magersfontein by a bullet through the lower part of the thigh, which passed straight through the muscles from front to back and between the femoral artery and the bone, got quite well except that there was some limitation of movement. Flexion caused a dragging pain in the quadriceps extensor and extension in the hamstrings. He went back to the front still with this trouble and was again sent home for sickness. 18 months after the injury he fell from his horse and felt something snap in his leg, and since then he has been able to walk with much greater comfort, evidently because he had broken the cicatricial cord which bound the parts together and caused him pain.

## WOUNDS OF BONES.

Gunshot wounds of bones have, of course, been amongst those most frequently met with, and the resulting injuries

have been most varied. At moderate range and with an unaltered bullet the wound was often a clean perforation, and I have seen many cases in which the bullet passed straight across a limb perforating the bone without causing any comminution or even fracture. A few days ago I saw on the screen with the x rays a humerus which had a distinct perforation in its upper part through which the rays passed freely. But if the range is short the great velocity of the bullet smashes a large piece out of the bone, splintering it in every direction and causing extreme comminution. It is in these cases that we see what have been called the "explosive" effects. The aperture of entry may be normal, but the aperture of exit is large and lacerated owing to the bony fragments being driven through it by the force of the bullet. A similar condition occurs when the bullet has been deformed before striking the body, as in ricochet or when the soft bullet is employed and mushrooms when coming in contact with the bone. The following case is a good example of the effects of a distorted bullet.

CASE 6.—On Jan. 29th, 1901, at Modderfontein, a lieutenant and 30 men were sent out to drive the Boers from a kopje to clear the road for a convoy. The officer was just stooping to take cover behind a stone with his rifle in his hands when a bullet fired by the enemy at short range—300 or 400 yards—struck him on the outer and upper part of his left arm. The entry wound was large and irregular, and the scar left can hardly be covered by a halfpenny. The bullet struck the upper end of the humerus and shattered it into many pieces; passing on it broke two ribs and entered the pleural cavity. The first field dressing was applied at once by one of his sergeants and shortly afterwards a thorough antiseptic dressing by a surgeon, but the wound suppurated. An incision was made a few days later and many pieces of loose bone were extracted, both from the shoulder and from the chest, into which they had been driven by the bullet, and since I have continued to remove pieces every few days from the sinus in the shoulder. In the middle of March a skiagram was taken of his chest and the bullet was found to be situated over the ninth rib. On June 10th, when I first saw him, the entry wound was healed, but from a sinus posterior to the axilla pus poured freely from the pleural cavity on coughing. The bullet was again localised between the ninth and tenth ribs by an x-ray photograph, and on June 19th it was removed by an incision through this interspace. The bullet was a Mauser, greatly curved and distorted, and with its mantle much split, evidently the result of ricochet. The special points are that the wound of entry was large and irregular, showing distortion of the bullet before entry, and that the bullet lodged although fired at close range. The electric probe was used at the operation and gave distinct evidence on touching the bullet by the sound it produced in the telephone attached.

This case exemplifies an unpleasant characteristic of these injuries of bone—namely, their tendency to cause chronic trouble. The wound heals up rapidly all but a sinus, and through this for months afterwards little, or even large, splinters and sequestra continue to be extracted. I have had several cases in which six months or even a year afterwards this troublesome complication continued.

CASE 7.—The patient was wounded at Surprise Hill on Dec. 11th, 1899, by a bullet through the thigh which smashed the upper end of the femur. On Sept. 6th, 1900, and again on Sept. 30th, that is, nine months after the injury, he was put under an anæsthetic and a large number of fragments of bone were removed and much débris was scraped from a cavity in the bone. On May 23rd I saw him for the first time and made a note that there were very good union, first-rate position, and very slight shortening, and I complimented him on so successful a result. On May 25th he unfortunately slipped whilst walking round the billiard table and in trying to save himself fractured the patella of his injured limb. This was wired and did remarkably well in spite of a very large effusion of blood into the joint. But he again came under my care in January, 1901, with an open sinus which led down to the injured part of the femur. A few days later he was put under an anæsthetic and Sir Thomas Smith cut down upon the bone. A large cavity was found in the bone itself, filled with a quantity of soft unhealthy tissue and bony detritus, but no definite sequestra. This was cleared out and healthy bone was exposed, but the wound could never be got to heal, and only a short time ago I heard that he had still to wear a drainage-tube in the sinus and had to wash it out daily with an antiseptic lotion. Apparently the cavity in the bone was so large that the blood-supply to the new tissue was insufficient for its healthy

development and it softened and broke down into pus. This is so good an example of many bone injuries that I have given it rather fully.

In spite of these troublesome complications it is simply marvellous what severe injuries are completely recovered from.

CASE 8.—A patient wounded at Surprise Hill during the siege of Ladysmith received the following injuries: a bullet through his chest which pierced his right lung and caused extensive surgical emphysema, and another bullet through both thighs entering behind the great trochanter on the right side and passing out behind the great trochanter on the left side, producing a terrible comminuted fracture of the left femur. He was in Intombi Hospital for the rest of the siege and endured the privations that were a natural necessity under the circumstances. He had constant malarial fever, copious suppuration from the thigh wound, and when I saw him in May, 1900, he was emaciated and cachectic to an extreme degree. I had no hopes of his recovery, much less of his ever walking again, but he began to recover, went to the seaside, and some months afterwards when I met him again he had grown so stout and robust that I failed to recognise him. I felt that I should never despair of anyone getting well after that experience.

#### WOUNDS OF JOINTS.

The wounds of joints have been common and I have seen examples of injuries at all the large joints. The results are most varied and I will mention two extreme cases. In the first the hip-joint was disorganised and apparently bony ankylosis formed; in the other the ankle-joints were absolutely unaffected.

CASE 9.—An officer of the Dragoon Guards was wounded on Jan. 5th, 1901, in the Magaliesberg at close range—from 150 to 200 yards. The bullet entered behind the great trochanter of the right femur; it crushed the upper part of the thigh bone and its exit wound was high up in the adductor region. It tore the scrotum, wounded the right testis, passed through the pommel of his saddle, and lodged in the left leg of his trousers. He had acute suppurating cellulitis spreading over the abdominal wall which required many incisions and was treated by soaking in a warm antiseptic bath. When seen in June all the joints of his right leg were very stiff and painful on the slightest movement. They were stretched under an anæsthetic; the knee and ankle moved freely, but the hip was fixed. Recently I examined him again; the hip is quite immobile, probably as the result of bony ankylosis, and the leg is adducted across the other, but there is no shortening. Otherwise he is quite well. It is proposed to divide the neck of the femur and place the leg in a good position. The bullet which caused the injury was a Jeffrey's; it was much deformed by the bone and saddle; its lead point was mushroomed and the mantle split open and curved over like the petals of a flower.

CASE 10.—A lieutenant in the Scottish Rifles who was wounded at Spion Kop and who simply came to be examined, exhibited quite an opposite state of things to that described in the preceding case. An unaltered Mauser bullet had entered on the outside of the right ankle, passing through the external malleolar process across the ankle-joint through the internal malleolar process, then it entered the internal malleolar process of the left foot across the left ankle-joint and went out through the external process. All the wounds were small and almost similar in character, the exit and entry wounds being indistinguishable from one another. Both the joints moved freely without creaking or pain except when force was applied, and the patient had no difficulty in taking as much exercise as he wanted.

#### INJURIES OF NERVES.

The injuries to nerves have been most interesting, but there have been so many that I must pass them over with rather a cursory notice. I have seen wounds implicating the ulnar nerve just below the axilla, in the forearm, and at the elbow, producing anæsthesia, paralysis, and wasting of the parts affected; of the musculo-spiral, producing wrist-drop; of the brachial plexus in the axilla, involving many nerves; of the peroneal nerve; and lastly, of the sciatic. In many of these cases we cut down on the nerves at the seat of the injury. Sometimes there was found to be nothing abnormal with the nerve when we were obliged to close the wound without being able to do anything to relieve the symptoms. In others the nerves were found either compressed by surrounding scar-tissue, when we removed as much of the unhealthy structure as possible, or the nerve was found to be divided and had to be united, or, lastly, so much of the nerve was

destroyed (in one case three inches) that nothing further was done. In many of these cases much improvement seemed to come from the operation even when nothing abnormal was found. In all cases, however, the improvement was very slow and it required many months to get any satisfactory results. These remarks must suffice for the smaller nerves but I should like to describe rather more fully three cases of injury to the sciatic.

CASE 11.—The patient was wounded in a sortie from Kimberley in October, 1899; the bullet passed through the thigh, fractured the femur, injured the sciatic nerve, and was cut out at the inner and posterior aspect of the thigh. Six months afterwards there were wasting of the muscles of the injured limb, difficulty in moving about, and some anæsthesia, especially over the sole of the foot. All the muscles acted to faradism except the biceps and anterior tibial. With galvanism all the muscles except biceps gave normal reaction (K.C.C. > A.C.C.), but in the biceps the reaction was equal. The skiagram showed an oblique fracture of the femur and many small pieces of metal. In June, 1900, eight months from injury, the sciatic nerve was cut down upon by Sir T. Smith, the adhesions were broken down, and a portion of the mantle of the bullet was removed from the centre of the nerve. The patient has made uninterrupted progress and can now walk about well with only a slight limp.

CASE 12.—In this case the patient was wounded on Nov. 10th, 1899, in a skirmish preceding the battle of Belmont; the bullet passed through the thigh, wounding the sciatic nerve but missing the femur. There was intense pain in the limb with several very tender spots, and the muscles below the knee did not act at all to faradism, although those above did slightly. There was great wasting, with anæsthesia on the dorsum of the foot and down the outside of the leg. In July, 1900, nine months from the receipt of the wound, the sciatic nerve was exposed, there were much thickening of the nerve for some distance, with a distinct swelling at one spot, and many firm adhesions to the surrounding parts. The adhesions were broken down and the nerve was freed. The patient has made very slow progress, the limb is much wasted, and he walks with great difficulty; the prognosis does not seem very hopeful.

CASE 13.—This patient was wounded at Quaggafontein on August 31st, 1900, probably by a soft-nosed bullet. Three months afterwards he had complete paralysis below the knee and weakness of the hamstrings. There was anæsthesia or hyperæsthesia in all the parts supplied by branches of the great sciatic nerve but the anæsthesia was only absolute in patches of the size of a crown. On Dec. 16th, 1900, three and a half months from the date of injury, Mr. A. D. Fripp cut down upon the nerve between the two orifices produced by the bullet. The anterior part of the nerve was found to be quite free and healthy but the posterior part was much destroyed and occupied by thick cicatricial tissue. One and a half inches of the posterior portion of the nerve was removed, the incision was carried half-way through the nerve, the anterior portion being untouched. The cut edges were drawn together with silk sutures and the anterior portion was thus formed into a loop; there was a good deal of tension. Shortly after the operation there was no voluntary power in the muscles below the knee or reaction to faradism, with galvanism A.C. > C.K.C. or the reaction of degeneration. Three weeks later things had improved—A.C.C. and K.C.C. were equal in the gastrocnemius but there was no faradic contraction. In another month galvanism gave a normal reaction, K.C.C. > A.C.C., but no faradic contraction. When I saw the patient a short time ago he could walk well and could move his limb without any difficulty, but there was a slight limp. I think the operation in Case 13 was of great interest and has proved a success.

#### INJURIES OF THE SPINE.

At the risk of wearying my hearers I should like just to run over a few more cases. Three examples of injury to the spine are interesting.

CASE 14.—The injury in this case was received at Belmont. The patient was kneeling down, looking to the right over the top of a kopje, when he was struck. The bullet entered just in front of the anterior edge of the left trapezius, a short distance below the mastoid process, and passed out at the back of the right shoulder-blade. Apparently a line joining the two orifices would pass through the bodies of the cervical vertebrae. He felt faint and lost all power in his arms and legs. When seen two months later power had returned and he could just walk, but all the muscles were very weak and

there was much wasting of the muscles of the shoulder and neck on the left side. Dr. W. A. Turner believed that this was due to injury to the cervical nerves and the general paralysis to lesion of the cervical cord. To cut a long story short, by complete rest and careful nursing he got quite well and returned again to the front.

CASE 15.—The patient was wounded on Nov. 6th, 1900, at Bothaville. The bullet entered the right side of the neck above the clavicle and anterior to the edge of the trapezius and came out close to the angle of the left scapula. When struck he said that he leapt up in the air and fell, breaking four ribs. He had complete loss of motion and feeling at once in the lower extremities, but no loss of power over the bladder or rectum; he did not know where he was wounded, but thought it was in the abdomen. When seen four months afterwards ankle clonus and knee-jerks were excessive and he was easily put into a general convulsive condition of the lower limbs. He has girdle pain well marked and a band of hyperæsthesia round him at the level of the seventh dorsal spine. When he gets into a bath he does not know if it is hot or cold until the water reaches his sternum. But his case is a long one. He is gradually improving. He can stand without his crutches, although he cannot walk a step, but he still has much pain in his back and anæsthesia to heat.

CASE 16.—This patient was wounded on May 13th, 1900, outside Mafeking, and the case is interesting because the bullet was removed from the spinal canal by Mr. A. D. Fripp about two months after the injury. He was struck in the back while crouching and had paralysis of both legs for a week, then the right recovered; the left was entirely paralysed, with loss of sensation and reflexes; there were sharp shooting pains and the muscles wasted rapidly. The bullet was removed from the spinal canal at the level of the second lumbar vertebra and a piece of bone compressing the membranes below was also removed. Since the operation the power over the bladder and rectum has slowly returned and the muscles are gradually recovering their power, so that he can get about on crutches, but he is still very helpless.

The saying is that "every bullet has its billet," but there must have been an enormous number of shots that were not hits to judge by the stories which I have been told by those who have been exposed to perfect showers of bullets and yet have lived to tell the tale. Some have been hit in so many places that they almost forget where their wounds were.

CASE 17.—At the battle of Colenso an officer received a shrapnel wound on his chest on the left side, causing a deep bruised gash. This knocked him over and "winded" him for a few minutes. He got up and was going at the double when a Mauser bullet went through his left arm just below the attachment of the deltoid and passing on struck the chest below the axilla between the seventh and eighth ribs and passed out an inch from the spine over the ninth rib. For an hour after this he had hæmoptysis. Whilst sitting with knee bent bandaging his arm another Mauser bullet passed through the patella.

CASE 18.—A patient wounded in the relief of Mafeking received a bullet through the middle of his arm which cut the brachial artery and broke the humerus. The same bullet passed into the chest and out in front of the sternum. After this the patient vomited blood. Another bullet passed through the lower part of his left thigh; he had also two bullet wounds and one shell wound in his left leg and a bullet wound of his left foot. After this he was only treated in England for his wrist-drop.

CASE 19.—The patient had a bullet wound of the skull above the left ear which made him temporarily unconscious and for which he was trephined three days later. At the same time he had a bullet through his arm, another through the left side of his chest, which did not wound the lung, a flesh wound of his thigh, and another of his right cheek.

I hope that I have given some idea of the sequelæ of the war and that they have interested and not bored my hearers. Before closing I think I must be quite sure that the tone of what I have said about the injuries received is not too optimistic. Perhaps it may appear so, but the terrible lists of casualties that we see so often will, I am sure, counteract this. I have, of course, seen only those patients who are well enough to travel home. Amongst the 150 or so who have passed through the hospital none have died, although many have been very ill, and I am glad to say that the great majority of them are fast recovering complete health and strength.

### THREE CASES OF FAMILY PERIODIC PARALYSIS, WITH A CONSIDERATION OF THE PATHOLOGY OF THE DISEASE.

By E. FARQUHAR BUZZARD, M.B. OXON.,  
M.R.C.P. LOND.,

REGISTRAR TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN-SQUARE, W.C.

DURING the last two years I have had several opportunities of examining and observing three members of one family who suffer from attacks of temporary paralysis of varying degree and duration. The patients were a woman and her two sons who were first seen in private in October, 1899, on which occasion no evidence of these attacks was forthcoming. The history of the condition was, however, obtained and is here set forth.

The mother comes of a healthy family in which there is no record of another victim to the same disease. Her father and mother died at the ages of 73 and 72 years respectively; the latter was of a highly nervous temperament. Her only brother is alive and healthy. She is now between 35 and 40 years of age, and is in every other respect a perfectly healthy woman and a most intelligent witness, with no suggestion of hysteria or excitability about her. Recollection of her parietic seizures goes back to early childhood and she can distinctly recall many occasions on which she has fallen on the floor and remained there in opposition to all nursery laws of decorum, a proceeding which used not unnaturally to evoke a severe reprimand from the local authorities. From that time until the present the patient has always been subject to such attacks of paralysis, varying in severity from a condition in which for many hours or perhaps a day or two she is unable to move hand or foot to a temporary and comparatively unimportant disability. These attacks invariably commence during a period of rest, but generally follow, if they are not induced by, a spell of physical exercise, such as walking, cycling, or climbing, during the actual performance of which they never occur. The onset of the paralysis is accompanied by a peculiar sinking sensation at the epigastrium and a feeling of "pins and needles" over the trunk and limbs. If the attack is a severe one in the course of a few minutes she is unable to rise from a lying or sitting position and gradually becomes powerless to use any voluntary muscle, except those concerned in respiration and in the movements of the face, eyes, lips, and palate. Sometimes respiration is difficult, necessitating the removal of corsets, and a choking sensation is experienced as long as the attack lasts. The movements required in talking and in mastication, although never impossible of being performed, are only carried out with an unusual amount of fatigue. The patient describes no pain during this condition of helplessness but says that she has a general feeling of "pins and needles" about her while it is present. The palsy passes off as gradually as it comes and several days may elapse before she feels as springy on her feet as before the attack. The above description applies to severe attacks which at one time were so frequent as once or twice a week, but which have occurred at increasingly longer intervals of late years.

The patient has only two children, boys, aged 13 years and 11 years respectively, in both of whom attacks similar to her own have been noticed since they were first able to move about. The two lads are unusually healthy-looking, well made, and possessed of more than average intelligence. As a rule they show no extraordinary nervousness or excitability, but during a period of palsy they are liable to be more emotional and more easily upset than during the interval between these periods. Their attacks differ from those of the mother only in the fact that they are more frequent and of less severity, never lasting more than an hour or two; in addition they experience difficulty in micturition during a bad attack, and the younger boy has had some very uncomfortable and alarming signs of syncope. The parents have noticed that his skin is generally moist and flushed at some time during an attack and a certain puffiness about the eyelids has been observed. The paralytic periods experienced by the boys are related to previous exercise in the same way as those of the mother, and they

occur not infrequently at night. The slighter palsies are very frequent, sometimes two or three a day, and may only be brought into notice by a peculiarity of gait and by the fact that the sufferers are easily knocked down by anyone brushing against them; for this reason they are unable to attend a school where they would be liable to be jostled by their companions. It is a common occurrence for one or other boy to experience the initial sensations of an attack whilst seated at his studies and he can at times prevent any further development by getting up and walking it off. A careful examination of these boys which I made in their normal condition revealed no signs of any organic disease of the viscera or of the central or peripheral nervous systems. The urine reacted normally to the usual tests and the muscles responded to electrical stimuli in a perfectly healthy manner. Whilst using a mild faradic current the younger boy volunteered the remark that the sensation produced was very similar to that which he experienced whilst his muscles were becoming paralysed. The deep and superficial reflexes were tested and found to be normal.

With a view to the further elucidation of their disease the boys, on more than one occasion, have been brought to me after a brisk walk of four or five miles. In this way I have been enabled to watch the development of mild and moderately severe periods of paralysis. On one occasion the elder boy came in with one arm already partially paralysed, so that he could not raise the hand above the level of the third waistcoat button, and the weakness was noted to be affecting the proximal, rather than the peripheral, muscles of the limb. After sitting a few minutes he said: "I don't think I shall be able to get up again if I sit here long." A few minutes later he was only able to rise from his chair with the help of his arms and could not maintain the upright position without support; at the same time he could not hold his arms above his head. Examination revealed considerable weakness of the flexors of the thighs and of the flexors and extensors of the knees; the knee-jerks were obtainable, but were not brisk. 10 minutes later he could walk a few steps in an ungainly manner, swinging the legs forward to overcome the weakness of the flexors of the hips and the extensors of the knees. No subjective or objective ophthalmic abnormalities were present and sensibility remained intact. Such were the nature and extent of a mild or abortive attack.

In April, 1901, Dr. H. D. Singer, at my request, kindly consented to be present and helped me to make a more complete examination of these boys after a walk of about an hour's duration. On this occasion, however, half an hour elapsed before any marked symptom of paralysis supervened, although the lads complained of some "stiffness" about the knees and were distinctly "wobbly" in their gait. Presently the younger boy was unable to rise from his chair and to him we devoted our attention. He sat in a somewhat huddled position suggestive of weakness of the back muscles and we found on examination that all four extremities were paretic, the left hamstring and right biceps humeri muscles being most affected. The quadriceps muscles were not completely paralysed and a feeble knee-jerk could be elicited. A few minutes later no voluntary power remained in the quadriceps and it no longer responded to either faradic or galvanic stimuli of very considerable strength. The knee-jerk was now absent. The right biceps showed a corresponding change less marked in degree. The mother could detect a change in his articulation which was not apparent to us, but we noted a slight tendency to bilateral ptosis and were able to confirm the presence of a puffy appearance about the lower eyelids. The skin was very slightly moist and the pulse-rate was 108 when he had been seated upwards of half an hour. A gradual return of voluntary power coincident with the return of deep reflexes and electric excitability took place, and in the course of 30 minutes the boy was sufficiently recovered to walk out. The elder boy had also experienced an attack of milder character, but we had not the opportunity of testing his electrical reactions.

The results of this examination leave no room for doubt that the three members of this family are sufferers from family periodic paralysis and are, as far as I know, the only instances of the disease recorded in this country with the exception of a sporadic case published recently by Dr. Singer.<sup>1</sup> His publication includes such an exhaustive bibliography and critical digest of all the literature on this interesting subject that I shall do well to confine myself to

some remarks on a few features of special interest in connexion with my cases and to a discussion of the pathology of the disease generally.

*Age of onset.*—In all previously recorded cases there has been no instance where the paralytic attacks have occurred before the age of six years. In my cases there is no doubt that attacks were present from infancy (at any rate, in the second year) in the two boys and from an early date in the mother's childhood.

*Frequency of attacks.*—In the cases of the two boys the slight attacks are perhaps exceptionally frequent, as will be seen from a record presently to be alluded to under the heading of treatment. In published cases there is a wide variation in the frequency of attacks in different individuals and in very few is anything like a regular periodicity observed.

*Relation of attacks to exercise.*—The tendency of attacks to follow hard exercise has been noticed by nearly all observers, but the production of paralysis for purposes of observation has been unusually successful in my cases. It will be noticed, however, that paralysis only supervenes after an interval of rest.

*Muscles affected.*—As in all other cases, the proximal limb muscles are first and most often affected, although the incidence of paresis on particular muscles varies in different attacks; the trunk muscles are involved in moderately severe attacks along with the peripheral limb muscles. The neck muscles are also often affected. In my cases, when an attack overcomes one of the boys in a sitting position his head will fall forward or backward, according to whether or not a collar is present at the time. It is only in severe attacks that the muscles supplied by cranial nerves are affected, and of these the levator superioris palpebræ is the earliest to show any sign. The diaphragm always escapes even when the intercostal muscles are paralysed.

*Treatment.*—No means of alleviating or curing this disease have been discovered, but a partial success was apparently met with by Dr. Singer in his case by inducing a harmless diuresis. This tempted me to try a similar course with one of my patients—the younger boy. During nine days when no treatment was tried the boy had 15 attacks and a daily excretion of urine amounting to from 25 to 30 ounces. During the next seven days he took three pints of the following mixture daily in addition to his ordinary solid and liquid diet: acid tartrate of potash, half a drachm; syrup, one ounce; lemon-juice, half an ounce; and distilled water, 20 ounces. He had 12 attacks and a daily output of 80 ounces of urine. During the next eight days of the same treatment he had 11 attacks and the same average excretion of urine. I then ordered him some digitalis in addition, but the attacks became if anything more frequent and all treatment was stopped. I need hardly say that massage, electricity, and strychnine have been used in this disease as in most others where paralysis of whatever origin is present. My cases had been through many months of such treatment without relief, a result which is in accordance with the experience of others who have had to treat the condition. A true knowledge of the pathology of family periodic paralysis is essential before we can hope to secure amelioration or cure for the sufferers, and at the present time the theories in vogue do not lead us beyond the realms of poisons and possibilities.

*Diagnosis.*—It must be remembered that persons who suffer from this disease are brought to the physician in the intervals between their attacks and at such times present to the most careful examiner a perfectly healthy state of mind and body. It is impossible, therefore, to make a diagnosis of the condition without an opportunity of seeing an attack, and the opportunity being given there is no danger of confusing the complaint with any other. For these reasons it is quite unnecessary to draw a list of distinctions between family periodic paralysis and such conditions as myasthenia gravis or congenital myotonia. On the other hand, a vague story, when told by a mother of a child, of "falling about" or "refusing to get up" should receive, in the light of this disease, more serious consideration than is often the case when a personal examination has produced nothing but negative results.

*Prognosis.*—Three points are noteworthy in this connexion. 1. Many patients tend to suffer from attacks at longer intervals as life advances. 2. The condition of the heart and the difficulty of respiration are sometimes sufficiently grave to make us regard every severe attack as a source of possible danger, especially if it should happen to overtake

<sup>1</sup> Brain, Summer Number, 1901.

a person suffering from a serious pulmonary affection. No death directly due to the disease has been recorded. 3. There is reason to believe that the continuation of attacks over a long period may lead in some cases to permanent muscular contracture of a slight degree.

**Pathology.**—Several theories have been advanced at different times to supply the disease with some pathological basis, but no one of them can be said to have met the requirements of the case. Hartwig, in assuming an hyperæmia of the spinal cord, explains nothing. Samuelsohn in calling the condition "hysterical" appears to neglect such essential characteristics of the disease as absence of muscular excitability to mechanical, electrical, and reflex stimulation. Putnam invokes the somewhat vague assistance of cerebral or spinal inhibition and recalls the theory that muscular tone is a compromise between two opposing forces, one tending towards contraction and the other towards relaxation. He considers that in some diseased condition, toxic or otherwise, the normal prevalence of the former force over the latter may be reversed with a resulting relaxation of muscular fibre. It is true that in a physiological laboratory experiment stimulation of a certain kind can be so controlled as to produce a relaxation instead of a contraction of muscle in a muscle-nerve preparation during a short period of time, but it does not necessarily follow that the muscle will then cease to respond to direct stimulation. Moreover, two other facts must be borne in mind: (1) that in family periodic paralysis there is no demonstrable hypotonia, and (2) that hypotonia such as we are acquainted with is not associated with marked alteration in the electrical excitability of the hypotonic muscles.

During the last 16 years all writers on this subject have followed in the footsteps of Westphal and have assumed a toxic origin for the disease while many have pinned their faith to a theory of auto-intoxication. Dr. Singer, who favours this theory, admits that the presence of some poison in the blood does not explain the periodicity of the disease, the relative escape of the muscles supplied by the cranial nerves, and the recovery from the attack in the face of a diminished excretion of the urine and fæces. No one except Crafts, whose results have not received confirmation, has succeeded in finding any evidence of a specific toxin in the blood or excreta of these patients. It has been suggested, therefore, that the normal products of muscular work, acting either in excessive strength or against lowered resistance, may paralyse the muscles to the degree observed in this disease; but we know that muscles so exhausted cease to respond to volitional stimuli long before they cease to respond to electrical stimuli. Waller and Abelous too have taught us that in similar circumstances the indirect excitability to electrical stimulation disappears whilst the direct excitability still remains. In fatigued muscle, moreover, response continues to the make and break of the galvanic current after there is no response to induced shocks of shorter duration. In family periodic paralysis the condition is quite different; the excitability of the muscles to stimuli of volitional, mechanical, galvanic, or faradic origin disappears gradually and equally step by step. Similar features distinguish this disease from morbid conditions of the lower motor neurons due to poisons, either metallic or organic, in which we are accustomed to find a more or less modified reaction to degeneration and an incidence of the toxic effects on the peripheral rather than on the proximal muscles of the limbs. Finally, the suggestion that a poison analogous to curare can produce the desired effect has been discounted by the work of Donath and Lukaës who found that the muscles of curarised animals showed no electrical change.<sup>2</sup> Such considerations lead me strongly to the conclusion that the muscle substance itself, irrespectively of its neural connexions, is the seat of some temporary change profound enough to prevent it carrying out its normal function, that of contraction, under any form of stimulation.

The fact that this change follows muscular activity but is only consummated during periods of muscular rest leads one to consider what part may be played by the lymphatic circulation in the production of this change. We know that the lymph flow is influenced chiefly by three factors: (1) the difference between the intra-capillary blood-pressure and the extra-capillary pressure in the lymph spaces of the surrounding tissues; and (2) the influence of muscular contractions in conjunction with (3) the presence of valves in the

lymphatic vessels. The first factor suggests that the production of lymph in the muscle tissue will be increased by the activity of the muscles. The second factor suggests that during muscular inactivity a most important agent in the removal of this lymph is not at work.

Two questions naturally present themselves. 1. Is it possible that conditions may arise when, in the absence of muscular contraction, the other factors<sup>3</sup> in the removal of lymph may be insufficient for the purpose and so lead to a form of stagnation in the lymph-spaces of muscle tissue? 2. Can the lymph in such circumstances cause some physical or chemical change in the muscle plasma sufficient to reduce or temporarily to destroy its contractility?<sup>4</sup> These possibilities nearly assume the proportions of probabilities when the clinical phenomena of the disease are examined by their light. To begin with, they provide a not inadequate explanation of the apparent paradox contained in the statement that the paralytic attacks either follow a period of muscular activity or occur during a prolonged rest, since the former entails an increased production of lymph, the latter an abeyance of function on the part of the most important factor in lymph circulation. The escape of the diaphragm, the incessant activity of which in involuntary respiration would prevent any lymph stasis in its substance, receives a ready explanation. The muscles supplied by the cranial nerves are at a double advantage in respect to their lymphatic drainage; in the first place, they are more constantly in a state of moderate activity even when the limbs are at rest; in the second place, their position above the point of junction between the lymphatic and venous systems invokes the force of gravity on their side. The former advantage is also held by the peripheral over the proximal limb muscles, more particularly those of the upper extremities, a fact which is in consonance again with clinical appearances. Many of the patients have admitted a power of "walking off" an incipient attack, a possibility which is readily explicable by this theory. Dr. Singer says: "The paralysed muscles, although the palsy is of the flaccid type, do not show any degree of hypotonicity and feel firm and solid to the touch;" this is not incompatible with a change of consistence or tension such as we are considering. Goldflam, Crafts, and Singer have found changes in muscle extirpated during the height of an attack; the changes consisted of separation of the fibres and vacuolation. Is it possible that Dr. Singer is wrong in regarding these as artefact and that they are the natural result of some such condition as I have suggested? The peculiar subjective sensations of "pins and needles" during the onset of, and soreness after recovery from, an attack do not present any difficulties and the occurrence of permanent change in some muscles after many attacks does not surprise one.

Goldflam, Taylor, Crafts, and Singer have found a moderate lymphocytosis on examining the blood between the periods of palsy, and we may look on this result as in harmony with a condition of restored lymphatic circulation. Such a disorganised state of things in the lymph capillaries and spaces would be likely to have its effect upon the vascular circulation, but in what direction these effects would tend is not so easy to predict. We have instances of soft pulse, apical murmurs, and reduplicated pulmonary second sounds recorded by different observers, but what is still more noticeable has been the acute increase of the area of cardiac dulness during an attack. In Dr. Singer's case this enlargement was all on the left side of the sternum and assumed a shape which was not incompatible with its being the result of a pericardial effusion; at any rate, it is well to remember the close connexion between this serous sac and the lymphatic system.

It would be possible to multiply the various points at which this suggested pathological condition comes into touch and concordance with the clinical phenomena of the disease, but I think I have said enough to show how many of the latter become more intelligible when exposed to the light of the former. There are, I am aware, many imperfect links in the chain of hypothetical assumptions I have made, but my object in making it will have been fulfilled if it directs the attention of observers to the lymphatic system as a possible source of evidence and information for facts bearing

<sup>2</sup> Such as (1) the muscular fibres in the lymphatic vessel walls; (2) the suction effect produced by respiration; and (3) the low blood-pressure in the subclavian vein.

<sup>4</sup> Waller in speaking of the coagulation of muscle plasma says: "The myosin coagulum having formed is thus easily unmade and re-made out of the body; perhaps this is also the case in the body" (*Human Physiology*, third edition, p. 320).

upon the pathology of the disease. Various means of testing the above ideas have occurred to me, but I have not at present the opportunity of putting them into practice owing to the absence of my cases abroad.

In conclusion, I would like to put shortly the two points which I deem not unworthy of careful consideration: 1. That a chemical or physical change in the muscle plasma alone is not only a possible but the probable explanation of the loss of contractibility described in this disease. 2. That the important part played by the muscular system in the control of the lymph circulation points to an unstable condition of the latter or an abnormal, perhaps toxic, constituent of the fluid itself as possible sources for the changes in the muscles.

Harley-street, W.

## PURE UREA IN THE TREATMENT OF TUBERCULOSIS.

By HENRY HARPER, M.D. R.U.I.

THE following cases illustrate the value of urea in the treatment of tuberculosis:—

CASE 1.—The patient, a married woman, aged 29 years, came under my care on July 11th, 1901. She had had failing health for six months which began with weakness and with vomiting in the mornings. At the above date pregnancy had advanced three months. The appetite was bad, there were pain and sickness after food, and the patient had lost one and a half stones in weight. There was marked dyspnoea on reclining and there had been several attacks of hæmoptysis and a distressing cough, and much yellow sputum loaded with bacilli was emitted. During the last three weeks there were night-sweats which had made her very faint and weak. Very marked destruction of lung at the back of the left base was discernible, with every sign of rapidly advancing tuberculosis. The thoracic movements were bad and the prognosis was grave. The patient was put on urea, starting with 20-grain doses thrice daily, which were increased by 10 grains every week until 55-grain doses were reached, and she was kept on this all along. The general management as regards food, exercise, &c., was much the same as I have described in a paper published in THE LANCET.<sup>1</sup> Here it is to be noted that the urine before commencing treatment had a specific gravity of 1008, the amount of urea being 1 per cent. Several times I have examined the urine and never found the urea increased; twice it was less, being 0.08. This patient responded to treatment in the most satisfactory manner. Within four days she recognised the stimulating effect of urea and stated that the medicine gave her strength. Her cough was eased, and she had better appetite, starting to gain flesh from the first. Now the patient has gained 12 pounds in weight; both cough and sputum are gone and she considers herself quite well. There are two points in this case that I lay stress on as aiding in the happy result. One is that the woman was pregnant; the other that the brunt of the disease was situated in the base of the lung. This patient consumed 27 ounces of urea in all.

CASE 2.—A female patient, aged 22 years, came under my care on July 8th, 1901. She had been ailing for four months. The illness began with a "cold" which was followed by headache, loss of flesh, and languor. When first seen she looked thin, there were symptoms of malnutrition, and a click could be heard at the right apex. Tubercle bacilli were found in the sputum. Her father had died from phthisis. The patient was put on urea and the same intensified method of dosage was followed until 50-grain doses three times a day were reached. In conjunction with this malt and cod-liver oil with the usual general treatment were adopted. On August 16th the cough and sputum had ceased; seven pounds in weight had been gained and the patient felt quite well. Now (Oct. 15th) the patient is quite free from all physical signs of thoracic disease. No cough or sputum is present. The total quantity of urea consumed was 30 ounces and 1 drachm.

CASE 3.—The patient, a man, aged 25 years, came under my care on July 20th, 1901. He had been very ill for six months with pain in the left side; there was much cough. There were little expectoration and no hæmoptysis, but

much loss of flesh with daily hectic. There was marked evidence of pleurisy of the left side, with bacilli in the sputum. The diagnosis made was pulmonary tuberculosis combined with tuberculous pleurisy. The patient was put on 15-grain doses of urea three times a day with cod-liver oil emulsion, and general treatment as described in former papers.<sup>2</sup> The urea was steadily increased by 10 grains added to each dose weekly until the maximum of a 60-grain dose was reached. One month after commencing the urea there was very decided improvement in the physical signs of the thorax, the patient stating that he felt nearly well. After two months' treatment practically all evidence of thoracic disease was gone; there was no cough or sputum. Now it was very difficult to distinguish any difference in the two sides. The patient had gained one stone in weight, and he stated that he felt quite as well as ever he had done. All dyspnoea was gone. The total quantity of urea consumed by this patient was 22 ounces.

CASE 4.—The patient was a boy, aged 22 months. The child had been hand-fed on cow's milk unsterilised, and had never been strong. There had been occasional diarrhoea. During the last six months there had been no gain in weight. When first seen the child showed all the appearances of tuberculosis; there were three large tuberculous glands situated on the neck, the abdomen was round, hard, and cushion-like, typical carreau presented, the rectal temperature was 101° F., and the patient was wizened-faced and of miserable aspect. Four-grain doses of urea flavoured with glycerine and peppermint water three times a day were administered, the dose being gradually increased to 10 grains three times a day. One month from the beginning of treatment the lumps on the neck had disappeared, the abdomen had become soft and natural to the touch, and the child improved in spirits and gained five pounds in weight. Along with the above, cod-liver oil emulsions and abundance of nutritious food were consumed. Here the urea acted like a stimulant and vitaliser, imparting spirit and vigour to the little patient almost immediately. The total quantity of urea ingested by the patient was three ounces and two drachms.

CASE 5.—The patient was a married man, aged 30 years, who came under my care on April 7th, 1901. For seven years he had had a tuberculous lump on the left side of the neck and had been under medical treatment for four years. His father had died from tuberculosis. I am now attending a younger brother in a very advanced stage of diabetes. On first examination the lump presented the appearance of a split bun with a diameter of about three and a half inches, and was from three-quarters of an inch to an inch in thickness as near as I could estimate. This mass was situated on the left side of the neck; the whole was rigid and immovable. All action of the muscles passing from clavicle to mastoid was destroyed, and the under-jaw was unable to move freely, the masseter muscle being much restrained. The lower margin of the lump nearly touched the clavicle, and the upper margin was close to the lobe of the ear and partly covered the mastoid bone. The front extended over a portion of the pomum Adami and the posterior border nearly reached the spinous processes of the cervical vertebrae. The patient was of typical phthisical build, the thorax being narrow, the limbs long, and he weighed only nine stones two pounds. Urea was prescribed in 15-grain doses, gradually increasing up to 60-grain doses three times a day. It has been a pleasure to watch this mass melt away; now there is scarcely a trace of it remaining. Movement has returned to the neck, the patient has gained one and a half stones in weight, and he says that as long as he can remember he has not felt so well as he does now. The total quantity of urea ingested by this patient up to Oct. 15th was 59 ounces and 7 drachms. I have examined the urine repeatedly, and at no time have I been able to find any increase of urea or of the quantity of urine excreted. In connexion with this case I would like to refer to Case 2 in my paper of March 9th.<sup>3</sup> I felt at the time that I was treating that case (Feb. 15th, 1900) that I had discovered a new fact in medicine. Now I feel sure of it. The fact is this, that 40 grains of pure urea dissolved in water, sterilised and injected hypodermically under strict antiseptic precautions, eased alarming dyspnoea and procured sleep in a tuberculous patient who was dying from strangulation through the steady enlargement of innumerable tuberculous glands producing compression and plugging up the larynx. This man is now

<sup>1</sup> THE LANCET, June 15th, 1901, p. 1672.

<sup>2</sup> THE LANCET, March 9th (p. 694) and June 15th (p. 1672), 1901.

<sup>3</sup> THE LANCET, March 9th, 1901, p. 694.

in perfect health. Now from my further experience of urea in tuberculous disease I think that I can read this fact aright when I see the power that urea has of melting down a tuberculous gland, and I am hopeful that this will prove a stepping-stone to something more in this direction.

CASE 6.—The patient, a female, aged 26 years, came under my care six and a half years ago. On her mother's side she came of very tuberculous stock. Her mother had one brother and three sisters who had died from phthisis under 22 years of age; her grandmother on her mother's side lost eight brothers and a sister from phthisis. The present patient has only one brother, who is quite strong, and her mother has never shown any signs of tuberculosis. Two years previously to coming under me she was taken suddenly ill with what was diagnosed as acute tuberculosis. The temperature on that occasion was 105° F., but though the prognosis was grave the patient rallied beyond expectation. When she was first seen by me two years later the right lung was tuberculous throughout with a marked cavity at the apex and there showing distinct deformity. The sputum was teeming with Koch's bacilli; never at any time did the sputum present much evidence of mixed infection. During the first six years that she was under my care the patient was treated on ordinary principles. Abundance of nutritious food was the aim and iron and cod-liver oil were the medicines taken internally for the greater part of the time. The girl was able to get about freely in most weathers and she lived much out of doors. Fortunately she was a good meat-eater, liking under-done beef better than anything. Year by year she continued slowly but steadily to improve. Accompanying this improvement a most complete excavation of the lung has been going on, so that now the right side of the thorax looks as if a heavy roller had passed over it, compressing the front and back walls by more than two-thirds of the space between. During the early months of this year a margin of lung exhibited active tuberculosis above the diaphragm. The patient had a little cough with bacilli in the sputum. On June 15th, 1901, I put her on urea, and now all cough and sputum are gone and the patient has gained 10 pounds in weight. In both this case and in the case which follows (Case 7) something was needed to help nature to complete the cure. The urea gave the finishing touch. The total quantity of urea consumed was 38½ ounces.

CASE 7.—The patient, who is now 20 years of age, came under my care about 10 years ago. Tuberculous disease of the spine was noticed when she was 18 months old. A few months later lupus appeared on the back of the left hand; soon after, the right became involved also. At the age of eight years lupus developed on both cheeks, gradually spreading inwards and involving the nose. When the child came under me lupus on both the hands and the arms was very extensive and showed no disposition to heal; the cheeks and the nose were the same. The little patient was the typical scrofulous specimen with alabaster skin, blue eyes, and fair hair. Many small tuberculous glands were manifest about the neck, and the abdomen was large, suggestive of tuberculous deposit in the abdominal cavity. This patient has been under my notice constantly without a break since then. I treated her on ordinary principles for tuberculosis—plenty of animal food, cod-liver oil, fats as much as possible, and iron and arsenic internally. Various applications were tried for the lupus locally, but calomel powder carefully rubbed in exerted the most curative power, and this was persevered in for quite eight years. The hand and cheeks healed, but the nose refused to yield to the treatment. The alæ of both nostrils had half an inch or more of an ulcerating patch of lupus, and the nasal septum was eaten through so that last summer a large penholder easily passed through the hole between the nostrils. The right nostril had the septum ulcerated up nearly as high as the inferior turbinated bone. The left nostril was ulcerated right up out of sight, and the inferior turbinated bone had suffered necrosis and was gone. After reading a paper by Mr. A. H. Buck in the *Practitioner* I put this lupus case on July 17th on urea, and the result is most satisfactory. The girl has gained 10 pounds in weight. All the ulcerated Schneiderian membrane has become covered with a healthy mucous membrane; the lupus ulcer on the alæ has all healed except a small speck on the left side, less in size than the head of a collar

stud. A few more weeks will complete the healing process. The quantity of urea used was 28 ounces.

With the exception of the last case, that of lupus, each of these represents a group of tuberculous cases, some of old-standing, others of recent invasion, in which I have used urea with success. In my two former papers I recommended the use of urea in the treatment of tuberculosis. I have now been prescribing it for nearly two and a half years (from April 30th, 1899) and I feel confident of its value in this disease. Nitrogen and nitrogenous products are the remedy *par excellence* for the tubercle bacillus. In the past much has been said of the bad effects of animal foods and of their ultimate elimination from the human system, but their marvellous power on tuberculous tissue has yet to be written. Human beings who lose their natural resistance and acquire susceptibility to the bacillus assume this condition from an ever-diminishing quantity of nitrogen present in the economy until the vulnerable point is reached. "If healthy wild cattle are caught, handled, confined in cow-houses and fed, milked, used and treated as dairy cattle, they seem to lose their immunity against tubercle, they may become affected with it and may suffer from it in the same degree as dairy cattle in England."<sup>5</sup> "The cow is an interesting animal from this point of view, as it is the animal more often attacked by tuberculosis than any other. Here we have a large amount of energy expended in procuring a sufficiency of nitrogen from herbs, and a large daily loss in proportion in the casein of milk. This process of extraction of nitrogen goes on far beyond the ordinary period of lactation."<sup>6</sup> If we place alongside this the fact that the white mouse which is immune to tubercle can be made vulnerable by hypodermically administering dextrose it shows that immediately an extra amount of saccharine material is present, a soil favourable for the growth of the bacilli follows.

Urea exerts a specific action on tuberculosis, quite as marked as mercury on a syphilitic node, salicylate of sodium on a painful joint in rheumatic fever, or iodide of potassium on bronchial asthma. Fortunately those using urea can study its effects on tuberculous disease like lupus and superficial tuberculous glands, and watch its action. The urea which I have used is a synthetic product, and it will be an interesting question in physiology and therapeutics to decide whether urea obtained from the animal kingdom differs in its action from that produced by synthesis. Latterly oxygen and its allotropic form ozone have been regarded as the all-powerful agent in the prevention and cure of tuberculosis. In my opinion nitrogen and its compounds are the antitoxin or immunising agent, and far transcend oxygen in value for the disease under consideration.

Cases suitable for the administration of urea are (1) circumscribed pulmonary tuberculosis of the lung, in which the sputum exhibits abundance of bacilli and only a limited number of cocci; (2) enlarged tuberculous glands situated on any part of the body; (3) tuberculous pleurisy (here in my cases urea acted like magic); (4) tuberculous laryngitis; (5) lupus; (6) tuberculosis of the peritoneum with fluid in the peritoneal cavity; (7) hydrocephalus in children; and (8) tabes mesenterica or carreau. Cases which are unsuitable are: (1) pulmonary tuberculosis where cocci predominate, practically covering the whole field of the microscope, and the tubercle bacilli exhibit a short stumpy appearance, the typical Koch's bacillus being scanty; (2) acute miliary tuberculosis with a high temperature (103° F. or over); (3) gastritis; (4) the last stage of tuberculosis where the patient is dying; and (5) when the patient has a temperature over 101°.

*Mode of administration.*—To carry out the intensified method a beginning should be made with small doses of from 10 to 15 grains thrice daily, gradually increasing them up to 40, 50, or 60 grains as a maximum. Practically this amounts to ½ per cent. of artificial urea added to the normal quantity circulating in the blood.

How I came to prescribe urea was thus. About four years ago the question of sanatoriums was coming rapidly to the front, especially on the continent, though in this country, too, it attracted much attention. Accompanying this the contagious nature of tuberculosis was dwelt upon and used as one of the strongest arguments for the erection of sanatoriums. Ever since Koch's discovery of the bacillus in 1882 and the four beautiful laws which

<sup>5</sup> Dr. J. F. Allen: THE LANCET, July 27th, 1901, p. 200.

<sup>6</sup> Mr. Buck at the British Congress on Tuberculosis, London, July, 1901.

<sup>4</sup> The Practitioner, July, 1901.

he then enunciated, apparently proving its contagious nature, I became a sort of half-convert to the contagion theory and for quite 15 years after that up to 1897 I had apprehensions in regard to the many bad cases of tuberculosis which I was then attending lest as a consequence I might get inoculated and develop the disease. Notwithstanding this I never shrank from attending and doing my duty to tuberculous patients. I was conscious of the fact that I was inhaling daily tubercle bacilli. This I had proved from time to time in various ways—viz., (1) by placing a slide covered with glycerine in a tuberculous patient's room and finding the bacilli on the glycerine; (2) by collecting dust from a hidden corner of my own consulting-room, the bacilli being found there; and (3) by scraping the dust from the moustache of a tuberculous patient in the morning before his face was washed, the dried sputum on the hair showing bacilli in abundance ready to be blown into the room every time the patient coughed. Now I think no more of the bacilli flying around me than I do of a shower of hail or a cloud of March dust. "The microbe is nothing, while the organism in which it thrives constitutes the main factor."<sup>7</sup> The school of experience is an excellent teacher in medicine. Looking back over these years and pondering over what I had passed through, the supposed danger I had been exposed to, and at the same time finding myself healthy and free from tubercle, I asked myself the question, "What has protected me or rendered me resistant to the bacillus?" I inquired into my family history and found that gout and its allied diseases were very marked in the families of both my parents. I came to the conclusion that family history was the explanation of my immunity to the tubercle bacillus. I further asked myself the question, If gouty salts be antagonistic to tubercle, is it not possible to administer these to the tuberculous? For the superior resisting power or mode of defence that is a natural endowment in one group of human beings can most likely be produced by artificial means in another group that are lacking in this. I looked over the chemistry of gout and the nitrogenous substance most likely to act as an antidote, and at the same time a substance available, and selected urea as the one most likely. This I did taking the view that urea is a less used-up product than uric acid and more likely to be of further use as an alternative in the economy, urea being always present in the blood of mammals and birds, while uric acid is invariably absent.

Now let us see if the administration of urea to the tuberculous patient rests on any rational or scientific basis. Several writers on gout have incidentally referred to the apparent immunity of gouty persons to tuberculosis. Sir Dyce Duckworth in his treatise on gout (1889) gives the fullest description of any that I have seen. He says: "I think it may fairly be affirmed that gout and active tubercular disease are not often associated." Again, he says that the older writers "laid stress upon the frequent presence of cretified masses in the lungs of such persons. These would now be regarded as evidence not of any specific gouty element, but merely as indications of obsolete and healed tubercular lesions. .... I recognise an antagonistic influence of the gouty upon the tubercular habit and agree with those who find tubercular processes checked often for long periods and rendered obsolete in virtue of gouty predisposition." "There might be some substance circulating in the blood in cases of gout in minute quantities yet sufficient to have an antagonistic action to the growth of the tubercle in the body, and there might be the same substance in other diseases, such as chronic interstitial nephritis and perhaps in people taking an unusual amount of food."<sup>8</sup> "Whilst the gouty have nothing to fear during the acute stage, when the malady becomes chronic it may degenerate into phthisis."<sup>9</sup> I have already alluded to Harris and Beale's statement<sup>10</sup> that they had seen advanced pulmonary tuberculosis arrested by an "intercurrent attack of gout." At the British Congress on Tuberculosis Sir Hermann Weber stated that "gout was a most favourable complication." "Out of 25 cured patients within his knowledge 18 had developed distinct gout in some form."<sup>11</sup> "Antagonism between phthisis and gout has also generally been accepted, and probably not without reason.

The period between 25 and 40 in men is very liable to both diseases. Yet cases of their concurrence in the same patient is rare. It would be interesting to know how often deposits of lithate of soda in the great toe-joint are found in bodies which also show evidence of obsolete or recent disease of the apices of the lungs.<sup>12</sup> In the *Practitioner* for July, 1901, Mr. A. H. Buck of Brighton contributed a most interesting paper on the curative power of urea in lupus. He says: "In upwards of 50 families into whose history I have inquired I have only come across one in which there were really bad gout and tubercle present." Of my own cases I have gone into the history of 87 families with marked gout, and only in four can I find any overlapping of tuberculosis and gout, and in these alcoholism has to be reckoned with. In members of gouty families who have become addicted to alcohol probably this poison has destroyed the natural immunising agent and rendered the person a prey to the bacillus by producing a favourable soil where it may find a lodgment. In connexion with this question of gout I think it a notable fact that out of all the sovereigns of England whose deaths are recorded in history, only one—Edward VI., a mere boy who had always been weak and ailing—died from consumption.

The whole problem of the value of urea hinges largely on immunity or natural resistance. Pasteur's original definition of acquired immunity is this: "When an animal has been inoculated with a dilute poison and the organism has overcome it by its resistance an inoculation with the condensed poison produces but insignificant effects." Professor Buchner in his latest views regarding the problem of immunity divides it under two heads; one he calls "natural resistance," the other "specific immunity." Besides that innate invulnerability to toxin which some animals possess, the former consists in bactericidal properties of the juices and the inherent power of the leucocytic cells to secrete or elaborate alexin, which is believed to be a protein substance having the power of weakening the bacteria before the phagocytes devour them; for it is acknowledged that living virulent bacteria can be devoured by the leucocytes, but the exudates or plasma have the power to destroy bacteria without the presence of leucocytes at all. It is claimed that in this way cure results in contagious disease, and that after an attack specific immunity is acquired. Further, that the healing of an abscess produced, say, by the staphylococcus is brought about by increased resistance, not by specific immunisation. On the other hand, specific immunity is an acquired property resulting from inoculating an animal with a specially prepared antitoxin like that of diphtheria or tetanus, or by inoculation with bacteria either in the living or dead form; soon there appears in the blood of an animal thus treated a specific antagonistic body which acts as the protective. The principle in specific immunity is a special attraction by the antagonistic body and the specific reaction resulting on the toxin. The distinguishing feature of natural resistance is the presence of alexins, while that of specific immunity is the antagonistic substances.<sup>13</sup> Whether urea stimulates the phagocytes and makes them more voracious, or whether it increases the bactericidal properties of the serum, or whether it aids by increasing the cell stimulation to elaborate antitoxin (according to Ehrlich's "lateral chain theory") remains to be proved. One thing is certain, that urea throws a side-light on tuberculosis hitherto unsuspected.

I would define natural immunity as that inherent protective power possessed by an animal which when it is exposed to a contagious virus resists in the same way as the fireproof safe resists the fire. The most perfect example of natural immunity that I have ever seen was at my own home, while I was a medical student. A terrible attack of pleuro-pneumonia came and killed all the stock on the farm except one cow which had recently calved; strange to say, this cow remained well and continued to give healthy milk notwithstanding the contagion she was exposed to. Whether she had a mild attack of the disease acting as an immunising agent or not I cannot say. I know the cattle were attended by a skilled veterinary surgeon, the rectal temperature being taken frequently, but no form of latent disease was discovered in this cow. For a period of two years all fresh stock that came on the farm died, yet this cow kept in perfect health. Other notable examples of natural immunity I have seen, such as a family consisting of eight children attacked by a most malignant form of scarlet fever,

<sup>7</sup> Professor Vaugely, Bordeaux.

<sup>8</sup> F. P. Weber: Thesis for M.D. Cambridge, 1892.

<sup>9</sup> Pidoux.

<sup>10</sup> THE LANCET, March 9th, 1901, p. 694.

<sup>11</sup> Brit. Med. Jour., August 3rd, 1901.

<sup>12</sup> Fagge's Practice of Medicine.

<sup>13</sup> Brit. Med. Jour., vol. ii., 1900.

each fresh case in the home assuming a worse form of the deadly disease, as if the accumulation of the poison intensified the gravity of the attack; five of the children died from the disease. The weight of the poison fell on the throat and upper air-passages. One little girl who recovered had such a large sloughing abscess that quite three inches of the left carotid artery were exposed like a pulsating rod on the side of the neck, yet two sisters in their "teens" never contracted the disease.

Natural immunity and antagonism in diseases are subjects that have not received due recognition in the past. Predisposition and natural resistance play an important part in every-day practice. In typhoid fever it has been observed that a greater susceptibility exists among persons in towns who have quite recently removed from the country. (There seems to be a parallel in this respect between typhoid fever and tuberculosis.) One attack of typhoid fever confers almost absolute immunity against fresh inoculation (Andres). In diphtheria one, two, or three attacks of the disease are needed before natural resistance is established. It is well known that one attack of small-pox gives almost perfect immunity against a subsequent attack.

Lately the disciples of Koch have had their faith sorely tried by the announcement that bovine and human tuberculosis are not one and the same disease. The dismay that seized the medical officers of health when they found that their idol, bovine contagion, the supposed disseminator of human tuberculosis, was about to be shattered was indescribable. I would suggest to them to be prepared to find before another 19 years pass that what is now known as Koch's bacillus may turn out to be not the microbe that is the most deadly to the human race. The cases in which we get this bacillus singly are certainly the most curable, such as tuberculous glands before suppurative takes place, carreau, lupus, a focus of tubercle in the lung, or tuberculous pleurisy. In these cases the natural resistance of the body is seen to best advantage. Here the living organism makes an effort to assert its immunity and very frequently with success. On the other hand, the cases that are the most deadly are those known as mixed infection, where we encounter many species of cocci, such as the streptococcus and pneumococcus; these and the influenza bacillus produce the fatal cases in which we are compelled, as it were, to stand by with our arms folded and look on, watching "consumption" proceed with its consuming power. The value of urea is seen to best advantage in tuberculosis affecting the shut-in cavities of the body, where mixed infection is rare. It has been stated that the frequency of tuberculosis bears an inverse ratio to the rateable value of property (Sir J. Crichton Browne). The same proposition holds good with reference to animal food—viz., that tuberculosis bears an inverse ratio to the amount of proteid consumed; that is to say, the less animal food ingested the greater the number of tubercles, and *vice versa*. In time I think it will be found that the reason why England has a lower death-rate from tuberculosis than many other countries is that the people are extensive meat-eaters. This is where she reaps one of the many advantages from her open ports for the supply of food. Let anyone watch in the early morning the many dray-loads of foreign meat delivered in a large provincial town like Nottingham and the grounds for this statement will be apparent. Why are there to be seen the best specimens of scrofulous glands in the open glens and seaside villages round the coast of Ireland and the poor parts of Scotland? My explanation is that the potatoes, milk, porridge, maize, and occasional meal of fish or fat bacon on which the people live is deficient in nitrogen, and their natural resistance is so feeble that the stray bacilli floating about everywhere, even in the pure air of these mountain glens and seaside places, find a suitable soil to grow in. Of course, the contagionist who pins his faith to the open-air treatment would soon find another explanation of this apparent paradox. He would say that the homes of these people were unhealthy, bedrooms and living rooms teeming with bacilli. I doubt it very much.

The drift of medical opinion to-day is to ignore heredity in the etiology of tuberculosis and to assume that every human being is vulnerable to the bacillus. This is like closing one's eyes to everything observable in nature. If the colour of the iris, a mole situated on a particular place on the body, or a distinctive family wrinkle on the brow, not to mention the grosser forms of heredity, such as supernumerary or webbed fingers, be transmitted from generation to generation, or if the bars on the wing of a wild pigeon remain the

same through centuries, it is most likely that those who have withstood the assaults of the bacillus for generations possess within their tissues a protective. Once let the first thrill of excitement concerning the deadly nature of the bacillus and the contagion scare pass away and tuberculosis will be studied in a broader light, account being taken of heredity, constitution, environments, and food; valuable information on this point can be found in the older writers. The pendulum has so swung now as to explain everything by chemistry that not so long ago physiology sufficed for. This is the outcome of the recognition of the part played by the bacteria and their products on the tissues. During the last six months I have administered urea in much larger doses than previously. Striking the average I think that I have obtained the best results with from 40-grain to 50-grain doses three times a day, which is equivalent to  $\frac{1}{2}$  per cent. circulating in the blood in addition to the normal urea in that fluid. The highest dose I have reached has been 70 grains thrice daily; practically this equals half the total quantity of urea excreted by an average healthy man. In my experiments with urea I was like a man exploring an unknown country, compelled to go very cautiously step by step lest he might drop into danger, and also carefully to survey the country which he had gone over. This feeling was much intensified by the teaching which I had received 25 years ago—viz., that it was always a thing to be desired in all forms of illness to get rid of as much urea as possible from the system. This current of thought is to be found in all the text-books on medicine that have appeared since, including those of the present time. The clinical pictures of uremia that I had seen were always present in my mind while giving urea, and I was always keenly on the look-out lest I might be doing injury to my patient. This now I can say: I have not met a case where to my knowledge urea has done harm. Gastritis is the only drawback which I have ever seen to the administration of urea. While on this point I may state my belief that uremia, or anything resembling the uremia that accompanies Bright's disease, cannot be induced with urea, for here the toxalbumins have to be reckoned with.

One object of this paper is to show what a large amount of urea can be ingested without any increase in the urea excreted. Evidently it must go somewhere. A substance so soluble as urea and reputed to possess powerful diuretic properties not appearing in the urine in proportion to the quantity ingested is a problem in physiology that needs investigation. I believe that this holds good with the tuberculous only. In my experience urea given to the tuberculous appears only in the urine when the digestive organs get disturbed and gastritis supervenes. From this it would appear that lessened metabolism accompanies the non-assimilation of urea.

The gain of flesh coincident with the ingestion of urea is an obvious fact demanding an explanation. It suggests at once that urea is nutritive and that it supplements the food. This view occurred to me while watching its healing power on the Schneiderian membrane of the nose in Case 7. In that case I had seen this tissue for 10 years unable to heal, although aid was given to it by remedies best calculated for that object—viz., calomel powder applied locally, cod-liver oil with iron taken internally, and good nourishment. Here urea supplied at once to the body something that was wanting. The nearest comparison that I can make to the action of urea on the Schneiderian membrane is that to be seen after applying lunar caustic to an indolent ulcer, only the alternative acts from within instead of from without. Now that the bogey of contagion in tuberculosis is banished my dread for 15 years has been removed. I feel freed from its trammels and have no more thought of infection than when attending a case of bronchitis. Just fancy what a flutter there will be when some genius like Koch discovers that cocci of bronchitis can be cultivated outside the body and that inoculating an animal with these cocci sets up bronchitis. At present we look upon this as an innocent disease.

In all my cases where death followed after administering urea mixed infection was the predominant feature. Indeed, where the patient fails to respond to treatment by urea I have come to look upon failure as a differential test for mixed as distinguished from pure bacillary infection. Here I would point out the practical demonstration of the law—one disease, one remedy. Urea is only of value in tuberculosis where Koch's bacillus is the predominating microbe. Enormous quantities of urea can be consumed by some tuberculous patients and they crave for it as the hungry for meat or the thirsty for water. It seems to supply something

that is wanting in the tuberculous. Anyone interested in urea should read Mr. Buck's two valuable papers, as in some respects he views the subject from a different standpoint and gives most valuable information relative to tuberculosis. He also confirms much that I have said as to the action of urea, especially that it is a stimulant and that there is no increase of urea excreted by the kidneys.

Nottingham.

## THE PATHOGENESIS OF FIBROUS HYPERPLASIA.

By E. H. COLBECK, B.A., M.D. CANTAB., M.R.C.P. LOND.,  
ASSISTANT PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES  
OF THE CHEST.

A PECULIAR interest attaches to the pathogenesis of fibrous hyperplasia inasmuch as this particular overgrowth constitutes by far the commonest and most widely spread type of tissue reproduction with which we are acquainted. Moreover, the occurrence of fibrosis in all or any of its protean forms is pregnant with interest and importance alike to the physician and to the pathologist, so that the attempt to solve the problem of its mode of origin must ever continue to exercise a fascination over the minds of workers in the domain of medicine. The apparent dissimilarity of the conditions under which fibrous hyperplasia appears has led to wide divergences of opinion with respect to its mode of origin. An attempt will be made to show what is false and what is scientifically tenable in the various conceptions that have been held, and in so doing it will appear that the existing antagonisms may be resolved into a higher unity, wherein it is possible to demonstrate the operation of a single fundamental pathogenetic influence throughout the whole field of fibrous hyperplasia.

For the purpose of the present inquiry it is immaterial what method of classification is adopted, but it will facilitate discussion if the subject be considered under the following heads: (1) post-inflammatory fibrosis; (2) so-called compensatory fibrosis, visceral cirrhosis and the like; (3) the fibrosis of mechanical congestion; and (4) senile fibrosis.

*Post-inflammatory fibrosis.*—Under this head are included all those forms of fibrous hyperplasia—to wit, cicatricial, peri-visceral, capsular, and the like—which are admittedly the result of inflammation. The fibrosis that follows infarction and chronic catarrh of mucous membranes, &c., owes a similar mode of origin. It is, I believe, generally allowed that post-inflammatory fibrosis depends on the increased functional activity that is due to increased nutrition. I shall endeavour to show that the cause of all forms of fibrous overgrowth is fundamentally hypernutrition.

*Compensatory fibrosis, visceral cirrhosis, &c.*—It is in connexion with the pathogenesis of these forms of fibrous hyperplasia that the chief divergences of opinion have arisen. It may be pointed out parenthetically that the term "fibroid degeneration" which is still sometimes applied to overgrowth of fibrous tissue is obviously unscientific and inaccurate. A process that is essentially an overgrowth of tissue cannot be a degeneration, though, of course, degenerative changes can, and do, take place in fibrous tissue. Nor, as will presently appear, can it be successfully maintained that fibrosis invariably depends on inflammatory conditions. The function of fibrous tissue is mainly supporting and protective, and in the filling of this humble but useful rôle it comes under the control, more especially as regards its food-supply, of the master tissue in whose service it happens to be. So long as the more highly specialised cells can respond to the stimulus and make use of the food-supply, the more lowly organised fibrous tissue receives sufficient nutriment only to maintain life. Were this not so the hyperæmia and consequently increased nutritive supply that accompanies the display of function of an organ would give rise to overgrowth of its fibrous tissue. On the other hand, however, if the more highly specialised cells become unable to deal with and control the food-supply of an organ, the associated fibrous tissue-cells come under the unaccustomed influence of an increased nutritive stimulus to which they respond by growth. The domain of pathology teems with illustrations of the operation of this morbid process, of which we will take a few examples.

It is a well-known fact that the biceps of file-cutters

undergo enormous hypertrophy under the stimulus of the increased functional activity which their work imposes. The hypertrophy increases until the limits of growth are reached, when atrophy, accompanied by fibrous hyperplasia, ultimately supervenes. Now, in this case the failure of the muscular tissue to respond beyond a certain point to the heightened functional activity and increased nutritive supply in the shape of hyperæmia is due to the inherent limitations for growth that is imposed on muscular in common with other highly specialised tissues. Moreover, failure to respond implies protoplasmic insufficiency and ultimately degeneration, and it is not unreasonable to suppose that one of the effects of the functional inefficiency is an inability to deal with and control the food-supply, whereby increased nutritive opportunities are afforded to the supporting fibrous tissue, which thereupon proliferates. Furthermore, it does not seem improbable that the failure of the muscle cells to respond to the demand for increased functional activity is in itself a stimulus to a still greater augmentation of the blood-supply. There seems to be no reason why, under these circumstances, the overgrowth of intermuscular fibrous tissue should not proceed indefinitely, were it not that the subsequent contraction of the newly-formed tissue cuts off its own blood-supply. In this connexion it is interesting to observe that Adami has pointed out that certain cases of endarteritis, associated with fibrous thickening of the intima, are more than probably due to increased nutrition. It is of importance to note that in the cases so far considered there is no question of the influence of inflammatory conditions or of the action of an irritant. The significance of the absence of these influences will be discussed immediately.

The dystrophic sclerosis of the myocardium, described, among others, by Martin and Huchard, is another illustration of the suppositional operation of the same morbid process, though in this instance the relatively increased blood-supply to the supporting fibrous tissue is, owing to arterial disease, insufficient to maintain the integrity of the newly-formed elements, which therefore frequently show degenerative changes. Duchenne's (pseudo-hypertrophic muscular) paralysis illustrates the process under consideration from another aspect. Here, owing to an hereditary defect, it is supposed that the muscle cells of certain groups of muscles are unable to make use of and control their nutritive supplies with the result that the intermuscular fibrous tissue undergoes enormous hypertrophy.

Glandular tissues afford striking examples of fibrous hyperplasia from the hypothetical loss of nutritive control which is the central feature of the contention of this paper—for instance, the fibrosis that accompanies the cessation of function and degeneration of cells of the thymus and thyroid glands; of the ovaries, mammary glands, and testes with the decline and termination of sexual life. Sclerosis of clearly defined tracts of the spinal cord and of other parts of the nervous system supplies another extremely interesting illustration of the morbid process under consideration. In these cases the nerve-cells and fibres undergo degenerative changes, and finally absorption, under the influence of overwork, the action of toxins, and so forth, and their place is taken by fibrous tissue. It seems superfluous to inquire as to the pathogenetic influences to which the process is here ascribed, whether the degeneration of the nerve-cells and fibres precedes or follows the sclerotic changes, inasmuch as the two processes *must* go hand in hand. Thus as the control of the nervous tissue over its food-supply and power of self-nourishment declines and diminishes the stimulation to fibrous overgrowth begins and increases, and the two processes proceed *pari passu*. Friedreich's disease furnishes an example, from the point of view advanced here, of an inherited defect of control on the part of the nervous system over cell nutrition with accompanying fibrosis. The skin supplies an extremely interesting illustration of the same hypothetical morbid process in the disease known under the name of scleroderma.

Cirrhosis of the liver and kidneys has been ascribed to inflammatory causes and also to the action of irritants. Although, out of deference to custom, these influences will be considered separately, it may be pointed out that inasmuch as inflammation is the whole process comprised in the reactive response of living tissue to hypermaximal stimulation, and that irritation of tissues means hypermaximal stimulation, in effect they come to the same thing. The evidence in favour of an inflammatory origin of this form of fibrosis is scanty and unreliable and carries little or no weight. Nor can it be said that the arguments in favour of

irritant action as a cause of fibrous hyperplasia are much more forcible or convincing. Indeed, if by irritant action is meant hypermaximal stimulation—i.e., disease-producing stimulation—it cannot be directly a cause of growth. Now, does the action of the supposed irritant affect the functioning hepatic cells, or does it affect the connective-tissue cells of the liver. If it is to be a cause of growth it must affect primarily and directly the functioning cells which *a priori* would seem the more likely to respond to this form of stimulus. Yet if hepatic cirrhosis were due to the indirect action of an irritant the process should be in evidence at a much earlier period in disorders of the liver than is found to be the case. If, therefore, the operation of these influences can be excluded or rendered doubtful, and if it can be shown, as I have attempted to do, that fibrosis depends in some instances solely on increased nutrition, it is not unreasonable to suppose that hepatic cirrhosis may be due to a similar cause.

The pathogenesis of hepatic cirrhosis advanced here is that the functioning cells of the liver undergo chronic hyperstimulation from overwork by means of excessive food, alcohol, and so forth, and in course of time the functioning protoplasm becomes unable to respond to the demands made upon it. This entails protoplasmic insufficiency and degeneration, and the consequent interference with function begets inability to control adequately cell nutrition and food supply, which leads to an increased nutritive stimulation of the fibrous tissue cells, and thereby to hyperplasia of these elements. It follows, as in the instances cited above, that under the operation of the morbid process hypothesised here, liver cell insufficiency and degeneration go hand-in-hand with the hepatic cirrhosis, but it is quite conceivable that a considerable degree of fibrous hyperplasia might be observed before any microscopical evidence of protoplasmic degeneration of liver-cells could be found; indeed, in this connexion it may be unhesitatingly affirmed that physiological—i.e., functional—inadequacy may obtain without any discoverable anatomical change. In this particular, at all events, the theory does not clash with practice.

Cirrhosis of the liver can be produced experimentally. If one of the hepatic ducts be ligatured the area drained by the duct that is obstructed undergoes cirrhosis. Here there is no place for inflammatory influences or for the action of an irritant. On the other hand, it may reasonably be supposed that the liver-cells are put out of action, and their functions being in abeyance the fibrous tissue cells grow under the increased and unaccustomed stimulus of uncontrolled nutrition. A similar condition may be observed in the case of the pancreas and salivary glands when the excretory ducts of these organs become blocked by stone or by stricture, &c.

The pathogenesis of fibrous hyperplasia advanced here applies equally well to the explanation of the mode of production of renal cirrhosis. Thus, in consequence of the overwork that is occasioned by long-continued hyperstimulation from various causes, the renal cells undergo degenerative changes, and the resulting loss of control over glandular nutrition affords the opportunity for increased growth to the fibrous tissue cells of the kidney which they take advantage of.

*The fibrosis of mechanical congestion.*—The pathogenesis of the fibrosis that accompanies venous congestion and lymphatic obstruction is not difficult of explanation if the theory that has been advanced in this paper be well founded. It is necessary only to point out that in consequence of the altered circulatory conditions the nutrition of the more highly specialised cells of the organ involved, say, for instance, the liver, is imperfectly performed. The interference with cell nutrition which is not infrequently evidenced by protoplasmic degenerative changes implies more or less disturbance and loss of control over food supply, so that, even under the altered circulatory conditions, there is a relatively increased nutritive stimulation of the fibrous tissue cells, which therefore proliferate.

*Senile fibrosis.*—From infancy to old age there is a tendency, for reasons which in the light of the views advanced here are obvious, to a gradual increase in the amount of fibrous tissue throughout the body; and herein extremes meet, since premature fibrosis means premature senility. The liability to the growth of fibrous tissue throughout the body increases after middle life, and the rate of increase is regulated for the most part by the degree of functional capacity that is possessed and displayed

by the more highly specialised tissue cells. During and after middle life the functional capacity of the more highly specialised cells diminishes throughout the body, yet how often does it not happen that a man of between 50 and 60 years of age retains the table habits of his youth. It comes to pass sooner or later that the limits of the declining functional capacity of the more highly-specialised cells, more particularly of such organs as the liver and kidneys, which deal primarily and principally with the elaboration of food and the elimination of waste products, are exceeded, and the consequent breakdown of protoplasmic efficiency shows itself morphologically by degenerative changes and functionally by imperfect metabolism, and, according to the views expressed here, by deficient control over the food-supply to the more lowly organised tissues. The nutrition of the fibrous tissue in the organs that are implicated is now imperfectly restrained and a gradually increasing fibrosis ensues. Herein, too, it may be observed, lies one explanation at least of the occurrence of obesity in elderly people. The brain, spinal cord, heart, liver, and kidneys are the organs chiefly affected in senile fibrosis. These observations have, moreover, an important practical bearing on the necessity for the adoption of abstemious food habits after middle age, more especially in persons of sedentary habit. If the arguments brought forward in this paper carry conviction it would appear that the essential and fundamental element in the pathogenesis of fibrous hyperplasia is increased nutrition consequent on the partial or complete loss of the control that is normally exercised over the nutritive supplies to the fibrous tissue by the more highly specialised cells with which it is associated.

Throughout this paper the question of the influence of the nervous system has been carefully excluded, inasmuch as the operation of this factor on the incidence of fibrosis, though undetermined, is probably the same in all cases. Nevertheless, there is another side of the question with respect to the influence of innervation that must be briefly considered. So far, at least, as the more highly specialised tissues are concerned, two distinct processes of cell life must be clearly distinguished—viz., the functioning and the vegetative. There can be little doubt that nervous connexions and nervous influences are much more closely associated with the functioning than with the purely vegetative side of cell life. Now, with the decline of functional capacity there is no doubt a diminution of nervous influence, so that it would come about that, with respect to their claim on nutritive supplies, the degraded functioning cell in its vegetative condition would be pitted against the purely vegetative connective-tissue cell. It is clear that the degraded functioning cell could not respond by growth to a relatively increased nutritional stimulus, since it has lost the habit and power of proliferation. The vegetative connective-tissue cell, on the other hand, retains the habit and power of reproduction, and under the influence of the relatively increased nutritive stimulus responds by growth.

The further pursuit of this interesting side of the subject does not come within the scope of this paper, but it may be suggested that it is not improbable that from this aspect of the mode of origin of tissue hyperplasia the pathogenesis of new growths will ultimately be elucidated.

Upper Berkeley-street, W.

## ACUTE EMPHYSEMATOUS GANGRENE.

BY N. H. CHOKSY, M.D. HON. CAUS. FREIB.,

SPECIAL ASSISTANT HEALTH OFFICER IN CHARGE OF ARTHUR-ROAD HOSPITAL, BOMBAY.

THIS affection, which has been variously designated by different observers but is usually known as "emphysematous gangrene," is of infrequent occurrence and very few records of cases are to be found in medical literature. Considering, however, the gravity of its nature, progress, and consequences once the infection has begun, and that at the same time it is amenable to treatment if it is diagnosed early and if suitable measures are applied, a thorough knowledge of its onset, course, symptoms, and treatment is absolutely necessary. With this view I propose to refer to four cases that came under my observation at the Arthur-road Hospital, Bombay, during the course of the last two years.

The most recent contributions on the subject are those of Mr. E. M. Corner and Dr. H. D. Singer,<sup>1</sup> and Dr. Welch.<sup>2</sup> The former describe a case under their care at St. Thomas's Hospital and discuss the bacteriology of the disease at length. They believe that the specific micro-organism of the disease exists in two forms, aerobic and anaerobic, the first being generally associated with streptococcus pyogenes and staphylococcus and the second occurring in pure cultures. Three varieties of the latter are mentioned—viz., (1) bacillus emphysematosus (Fraenkel), probably identical with bacillus perfringens (Veillon and Zuber); (2) bacillus oedematis maligni (vibrio septique Pasteur); and (3) bacillus aerogenes capsulatus (Welch and Nuttall). Mr. Corner and Dr. Singer maintain that the bacillus remains local in its action, is non-pathogenic to undamaged tissues, and infects only such as have become less resistant either by trauma or injection of bacterial toxins. In his Shattuck Lecture on the Morbid Conditions caused by the Bacillus Aerogenes Capsulatus, delivered before the Massachusetts Medical Society, Dr. Welch presents us with an almost classical summary of his own researches and those of other observers, and shows how wide and varied may be the diffusion of the germ and its effects when invading the various tissues of the body. For the bacillus does not confine its attentions to the external tissues of the body alone, but it may infect the genito-urinary tract, the gastro-intestinal canal, the peritoneum, and even the large internal organs like the liver, lungs, &c. Dr. Welch says that by far the most common specific cause of emphysematous gangrene is the bacillus aerogenes capsulatus and that numerous organisms, described by other observers under different names, are to all intents and purposes either identical with it or that at least one of them is an aerobic bacillus, probably identical with Sanfelice's bacillus pseudo-oedematis maligni, which also is capable of producing this affection, but with much less frequency than the bacillus aerogenes capsulatus. Welch and Nuttall's observations with regard to its wide distribution in nature have received confirmation at the hands of others and the natural habitat of the bacillus has been determined to be in the intestinal canal and the soil, and as it is eliminated in the faeces the possibility of its being found upon the human skin has also been recognised. Only 46 cases of emphysematous gangrene, in all of which the bacillus had been demonstrated, occur in recent medical literature, and Dr. Welch gives a complete analysis of these. In all but five of the 46 cases the gangrene followed traumatism or a surgical operation. There was compound fracture in 18 cases, bullet and gunshot wounds existed in seven, the condition supervened after infusion of salt solution in three, hypodermic injections in two, and in the rest it followed surgical operations or other injuries of varying degree.

It is not absolutely necessary that there should be extensive injuries to bring about the infection, and five cases have been recorded in which the gangrene followed upon hypodermic injections and infusion of normal salt solution. Even the most unirritating of solutions may give rise to it, and this occurs when the patient's vital forces have become greatly depressed by Asiatic cholera, typhoid fever, plague, surgical shock, post-partum hæmorrhage, &c. There is, according to Dr. Welch, good reason to believe that the intact tissues of human beings in health possess marked resistance to the gas bacillus, and Muscatello and Gangitano also say that it attacks tissues already altered in their vitality by injury, by other pathogenic micro-organisms, by toxins, or by other depressing factors. He does not, however, believe that under all circumstances it is incapable of attacking healthy tissues. Two forms of the gangrene have been described by Pirogoff—one a rapidly spreading form and the other more localised, and it is assumed by some that the form of the gangrene is determined by the fact of the infection with the gas bacillus being either pure or mixed with other pathogenic bacteria, and that in the latter event the form is progressive, and in the former slow and more or less localised. This, however, is not borne out by Dr. Welch, as he has observed both the varieties in the unmixed pure infection, although it is not always possible sharply to define them clinically. The bacillus aerogenes capsulatus causes not only emphysematous gangrene, but also gaseous phlegmon or abscesses and it may infect any tissues or organs, even the brain not excepted. After citing a number of cases Dr. Welch con-

cludes that the bacillus aerogenes capsulatus in combination usually with pyogenic bacteria is the chief, if not the sole, cause of the gaseous abscesses or emphysematous gangrene which occasionally follow hypodermic injections. It appears that the fluids injected were not examined, but he thinks that the bacillus was either in them or in the syringe, whilst the fact that it might have been conveyed from the skin of the patients, or perhaps it may have reached the injured tissues from the intestine through the circulation, should not be overlooked.

The cases at the Arthur-road Hospital, Bombay, resolve themselves into two groups. The first group comprised three cases of bubonic plague under the specific treatment—viz., with Professor Lustig's curative serum—during March, 1900, when the fourth epidemic of plague was at its height. In the second there was only one case—viz., that of relapsing fever, and it occurred in April, 1901.

Emphysematous gangrene—or, to speak more correctly, emphysematous and gangrenous abscess—developed almost simultaneously in the plague cases at the site of the serum injections, and although about 1150 cases have been treated with the serum within the last four years no such mishap has been observed in any except the three above mentioned. The procedure followed in injecting the serum was as follows. The skin was first thoroughly cleaned with lysol solution, then with ether, and lastly with sublimate solution (1 in 1000). The syringe and needles were sterilised by boiling in 2 per cent. carbolic lotion every morning and were then kept immersed in 5 per cent. carbolic solution. Two or three needles were usually employed for the purpose, and whenever possible the same needle was not used in succession. On account, however, of the paucity of needles obtainable locally and the number of injections made daily—about 15 to 20 morning and evening—together with the want of skilled assistance, it was not possible to sterilise every needle after each injection. As soon as one was withdrawn it was wiped with cottonwool soaked in 5 per cent. carbolic lotion and was immediately immersed in the same lotion for some minutes until it was required for a subsequent case. The injections were almost invariably made subcutaneously on the inner and outer aspects of the thigh alternately and sometimes on the arms, and the quantity injected each time varied from 20 to 40 or even 50 cubic centimetres. As soon as the first case was observed extra precautions were taken to insure a thorough aseptic condition of the syringes and needles, but in spite of this a second and then a third case developed. Ultimately the syringes and the needles in use were discarded and a new set was substituted. Bacteriological examination of the serum used showed it to be sterile, and as the syringes and needles were boiled daily, and at that time twice daily, it is difficult to realise how infection could have originated from them in three cases only, whereas from 15 to 20 were being injected twice daily with the same appliances. It is probable that infection may have spread from the first patient, whose skin was extremely tough and required some amount of force to drive the needle in, and that the same needle might have conveyed the infection to the other cases on the same day, but that the gangrene developed in proportion to the resistance offered by their tissues. The gangrene occurred in, and was localised to, the thigh only, involving almost the whole of its front aspect, and was preceded by signs of acute inflammation, the skin looking angry and oedematous, and there was emphysematous crackling. The systemic reaction was also great and the patients got distinctly worse after these symptoms supervened. When the abscesses were opened foetid gas escaped in bubbles, together with unhealthy pus and sloughs of a dark and gangrenous colour. The muscles of the front of the thigh became gangrenous and pus and gas burrowed between them; large pieces of gangrenous muscle tissue were daily removed. The patients became steadily worse and succumbed, and there is not the least doubt that their deaths were hastened by this infection. The first case was that of a fairly strong and well-built man, but the two other patients were in an extremely weak and debilitated condition and were probably half-starved. Thorough bacteriological examination of the contents of the abscesses or of the necrosed tissue was not possible on account of pressure of work and the examination of the serum. Syringes and the needles gave negative results. It must be admitted that the grave nature of the cases was not immediately recognised, and it is probable that had an early opening been made and had the parts been appropriately treated the results would have been

<sup>1</sup> THE LANCET, Nov. 17th, 1900, p. 1408.

<sup>2</sup> Johns Hopkins Hospital Bulletin, September, 1900.

different, as shown by the following case. This patient was suffering from relapsing fever and was receiving stimulants and hypodermic injections for cardiac failure. The injections contained a combination of caffeine, spartein, strychnine, and atropin, made up in rum, and the injections were repeated every six hours. They were generally given on the arm in doses of 20 minims. About six days after receiving them the patient complained of a swelling on the left arm which on examination left no doubt that we had to deal with a gaseous abscess. The patient was immediately isolated, a free incision was made in the arm, and gaseous pus with sloughs of a dark gangrenous colour escaped. The parts were thoroughly irrigated with sublimate lotion and dressed with iodoform, and this was repeated three times a day. Under this treatment there was a decided improvement and within three days the parts assumed a healthy appearance and healed gradually without any trouble. This abscess was strictly localised to the front of the arm and involved in its destruction a part of the biceps. The fluid injected was examined bacteriologically but with negative results, and Dr. N. Berestneff of the Moscow University kindly undertook the bacteriological examination of the contents of the abscess. He was able to obtain an aerobic growth, but was of opinion that it was not Fraenkel's bacillus. It may have been Sanfelice's bacillus pseudo-*oedematis maligni* referred to by Dr. Welch. This patient was well-built, but had an extremely thick skin which was difficult to penetrate with a hypodermic syringe needle. Although several patients were receiving the same injection of the same fluid and by the same syringe at that time no other cases developed.

The above cases confirm the statements of Dr. Welch and others, that tissues damaged by the injection of bacterial toxins are prone to infection by the gas bacillus, and that even the most unirritating solutions injected hypodermically are at times followed by such infection. Hypodermic injections of cardiac stimulants form by far the most important feature of plague treatment, as well as that of relapsing fever and cholera, &c., and although thousands of injections have been made within the last five years it was in one case only, that of relapsing fever, that gaseous abscesses supervened. A thorough consideration of all the facts bearing upon these cases tends to show that the infection must have been conveyed by the needles from the skin of the patients. Last year during the prevalence of cholera the same injections were resorted to very freely and yet in not a single instance was there an infection of a similar nature although small localised abscesses or blisters are by no means uncommon in these cases on account of the sluggishness of the circulation.

Bombay.

### A FAMILY OF THREE CASES OF THE PERONEAL TYPE OF MUSCULAR ATROPHY (CHARCOT-MARIE-TOOTH-HOFFMANN).

By W. B. WARRINGTON, M.D., M.R.C.P. LOND.,  
PHYSICIAN TO THE DAVID LEWIS NORTHERN HOSPITAL; DEMONSTRATOR  
OF PATHOLOGY IN THE UNIVERSITY COLLEGE, LIVERPOOL.

*With a Note on the Result of Surgical Treatment*

By ROBERT JONES, F.R.C.S. EDIN.,  
HONORARY SURGEON, ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

THE cases here recorded are examples of a comparatively rare type of disease the position of which amongst the muscle atrophies is still obscure, though two recent examinations made by the present-day methods give some indications of its pathology. The ordinary type of progressive muscular atrophy as described by Aran and Duchenne usually commences in the small muscles of the hand. Hammond mentions that when the legs are first affected the condition is often hereditary. The distinct features of such an hereditary type of peroneal atrophy were, however, first clearly indicated by Howard Tooth<sup>1</sup> and Charcot and Marie<sup>2</sup> in 1886. Hoffmann<sup>3</sup> in 1889 and 1891 exhaustively discussed

<sup>1</sup> The Peroneal Type of Progressive Muscular Atrophy; Cambridge University Thesis, 1886; St. Bartholomew's Hospital Reports, vol. xxv.  
<sup>2</sup> Revue de Médecine, 1886.

<sup>3</sup> Archiv für Psychologie und Nervenkrankheiten, xx.; Deutsche Zeitschrift für Nervenheilkunde, 1891, p. 95.

the subject, adopting a distinct pathology for this type of disease, as is shown by the title of his papers ("Ueber Progressive Neurotische Muskelatrophie"). A further important communication was made in 1893 by Bernhardt<sup>4</sup> and in 1899 Sainton<sup>5</sup> gave the results of a thorough microscopical examination of the nervous system in a case of this type. Other records of this and allied forms of atrophy have been published and have added considerably to our knowledge.

CASE 1 (Fig. 1).—The patient was a healthy-looking

FIG. 1.



Case 1. Showing wasting of first dorsal interosseus and slight club-foot.

country woman, aged 56 years, practically free from any disability due to the condition observed. Both her father and mother lived to an old age and she was not acquainted with any relative who had suffered in a similar manner. She had borne five children, the two eldest and the fourth being girls; they are at present alive and in good health. The third and fifth were boys and are the subjects of the present note. The patient herself had always had good health and her pregnancies had been natural. She stated that when about seven years old she found that her ankles, especially the right, easily "turned in" and that consequently she often suffered from sprains. She was unaware that there was anything unusual about her hands. With regard to her present state, the muscles of the thenar eminence and of the first interosseous space were wasted in both hands, and also, but to a less extent, the hypothenar eminences. The other interosseus muscles appeared to be normally developed. This condition appeared to cause very little disability, as with the exception of the finer movements of the thumb and forefinger there was no paralysis. The muscles of the rest of the upper extremity and of the shoulder girdle did not appear to be in any way affected. In the lower extremity deformity was more advanced and unequally developed on either side. On the right the foot was hollowed and inverted and also somewhat dropped. The tendon of the tibialis anticus stood out like a taut cord. The toes and ankle-joint could be freely moved in all directions except that of eversion owing to complete

<sup>4</sup> Virchow's Archiv, Band 133, p. 287.

<sup>5</sup> Nouvelle Iconographie de la Salpêtrière, 1899, pp. 206 and 317.

paralysis of the peroneus muscle. The left foot exhibited the same characteristics, but to a more marked degree, for not only was the power of the peroneus less but also neither the toes nor the hallux could be extended. In addition to the pes cavus there was some equino-varus. The other muscles of the lower extremity were capable of causing powerful movements. There was no distinct wasting except that of the external group of leg muscles, yet the lower part of the thigh became rather sharply thinner than the upper part. No loss of sensation was noted and there was no pain either spontaneous or on pressure of the muscles or nerve trunks. Fibrillary twitchings were absent. The bladder and the rectum were normal. The cranial nerves and the optic discs were normal. The knee-jerks could not be obtained. The plantar reflex gave the usual flexor response. As to electrical excitability, in the upper extremity no reaction could be obtained in the thenar eminences either to the induced or the constant current. The first interossei muscles reacted slightly. The other muscles and nerves of the upper limb gave a normal response. In the lower extremity there was no reaction in the peroneal group of muscles. The other muscles of the thigh and leg reacted naturally.

CASE 2.—A man, aged 31 years, the third child of the above patient, dated his condition as far back as he could remember. He had always had excellent general health and could successfully carry on his work. There was marked club-foot on both sides and the feet were inverted and dropped but without any contracture of tendons. The power of dorsiflexion and eversion was completely lost. The toes were in the characteristic position of *griffe*

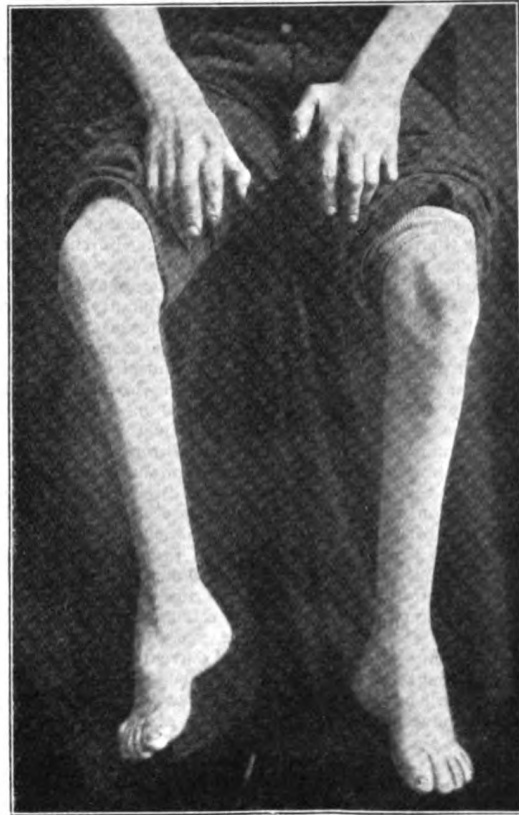
FIG. 2.

Case 2. Showing *main en griffe* and pes cavus.

*des orteils*. Wasting in the front and outer side of the leg was obvious, the calf muscles seemed well developed, the lower parts of the thigh tapered off somewhat sharply from the upper portions, but no obtrusive atrophy was present. The thigh muscles acted powerfully and the patient could readily raise himself to the sitting posture without using his hands. The gait was that usual in cases of "dropped foot," but there was no waddling and the patient

could stand with his eyes closed. In the upper extremity there was extreme wasting of the small muscles of the hands with typical *main en griffe*. The movements of the wrist, elbow, and shoulder-joints were normal and there was no wasting. The extremities were cold and bluish. No fibrillary twitchings were present. There were no subjective or objective disorders of sensation. The bladder and the rectum were normal. Slight nystagmus was obtained at the end of excursion of the globes. The cranial nerves and optic discs were normal. The knee-jerks were feeble. No plantar reflex could be obtained. With regard to electrical reactions, no reaction to either the faradic or constant current could be obtained in any of the atrophied muscles (15 milliampères being insufficient). With regard to the

FIG. 3.



Case 3. Showing wasting of the thenar eminences and the condition of the feet after operation.

other muscles which were capable of powerful voluntary contraction it was observed that very strong currents had to be used before they were excited. A faradic current which to the observer was unbearable and a constant current of 15 milliampères produced only slight contraction. This condition obtained in the muscles of the thigh, forearm, and arm. The face unfortunately was not examined.

CASE 3.—The younger brother to the above, aged 20 years, noted weakness in the ankles when he was 12 years old. He had always had good general health. Some time after the feet were affected he noticed wasting in the balls of the thumb and that he had difficulty in sewing. In the early part of 1900 he consulted Mr. Robert Jones on account of the deformity of his foot. Mr. Jones's report shows that this was very similar to that present in the case of his brother. An account of the surgical treatment was appended. It was highly successful and when seen by me the patient had a fixed ankle-joint and was able to place the soles of the feet flat upon the ground. The muscles on the front and outer side of the legs were greatly wasted and so also were the calf muscles, though these retained a moderate degree of power. The lower parts of the limb were cold and sweated considerably. The thigh muscles and those of the trunk acted powerfully. In the upper extremity the only abnormality noted was

marked wasting of the thenar eminences. The knee-jerks were distinct and a slight normal plantar reflex was obtained. There were no disorders of sensation. The bladder and rectum and the cranial nerves and optic discs were normal. With regard to electrical excitability, this was similar to the condition described in the preceding case—viz., no reaction could be obtained in any of the atrophied muscles, and to elicit contraction of the other non-atrophied muscles most unusually strong currents had to be employed. When such contractions were obtained, however, they had the normal characteristics.

These cases conform fairly well with the classical descriptions of Tooth and of Charcot and Marie—viz., they present an hereditary form of progressive muscular atrophy in early life commencing in the lower extremities and producing a paralytic club-foot, then invading the hands and giving rise to a varying degree of the *main en griffe*. Such a combination, as Gowers says, when present in early life is almost characteristic of the disease. The knee-jerks are usually absent or feeble and fibrillar tremors are present in the majority of cases. Sensation was normal in my cases, as in those of Tooth and of Charcot and Marie. Vaso-motor disturbances are shown by the coldness and blueness of the limbs and often by an increase in the secretion of sweat.

Much attention has been given to the electrical reactions which are peculiar and of great diagnostic value. A true reaction of degeneration may be present in the atrophied muscles, or, as in my cases, an entire absence of excitability to either the induced or constant current. Further, there is the important fact that even those muscles which are not atrophied and in which there is a full amount of power can only be stimulated with the greatest difficulty. As stated above, this was present in two of my cases. Oppenheim mentions in his "Lehrbuch" (1898) one case in which this condition obtained in almost all the muscles of the body, whilst the atrophy was confined to the lower extremities. Bernhardt and Hoffmann record cases in which even the facial muscles did not react to electrical excitation when either the nerve itself or the individual muscles were stimulated. Dubreuilh<sup>6</sup> remarks in this connexion, "Either the function of the muscles persists in spite of almost complete disintegration of nerve fibres, or those nerve fibres which one holds for empty sheaths have not really lost their functions." It is possible that some peculiarity in the skin may partly account for this phenomenon. It was observed in my cases that the patients were insensitive in a remarkable degree to the faradic current, a fact which has also been noticed by others, and, further, that a higher voltage was necessary in order to get a current of a given milli-ampere strength to pass through the body than is necessary in a normal individual. Whatever the explanation this symptom must rank as one of the characteristics of the disease.

#### PATHOLOGY.

**Etiology.**—Isolated cases have been recorded but are rare. There is either an hereditary history or several members of the family are affected. In Herringham's<sup>7</sup> case the heredity could be traced through five generations and involved 26 individuals, the males alone being affected. The symptoms usually appear in the first or second decade. Sainton states that in 52 cases the onset was noticed 40 times before 22 years of age and 14 times after that period, the extreme limits being two or 40. It never appears immediately after birth. In the majority of cases nothing of the nature of an exciting cause can be ascertained. In others some form of toxæmia has preceded the illness—thus measles had occurred in the cases of Ormerod<sup>8</sup> and Donkin.<sup>9</sup> Egger's<sup>10</sup> two cases had been workers in lead, and Hoffmann mentions alcohol and syphilis. But even if such blood states act as causal agents the primary lesion must be sought in the nervous system enfeebled by hereditary influences.

**Anatomy.**—In the discussion which this type of muscular atrophy has given rise to old observations of Virchow<sup>11</sup> and Friedreich have been discovered which refer to the state of the nervous system in cases probably of the class now considered. These authors described fatty and degenerative changes in the muscles, with increase in the connective tissue nuclei, great atrophy of nerve fibres in the peripheral nerves, and increase in connective tissue between the

bundles of fibres. The posterior columns of the cord were also affected. The changes consisted of atrophy of fibres and the presence of branching fibres and corpora amylacea. Three other necropsies have been performed of much more recent date—viz., by Marinesco<sup>12</sup> (1889), Dubreuilh (1890), and Sainton (1900), the last being especially valuable on account of the use of present-day methods. Dubreuilh recorded changes in the peripheral nerves, partly an acute degeneration, partly complete atrophy of nerve-fibres. The anterior roots of the cervical and lumbar enlargement were also affected. The muscles showed various degrees of degeneration and also some actually hypertrophied fibres. In the spinal cord the anterior horns, posterior horns, and Clarke's column were completely normal, but there was some increase of the glia tissue in Goll's column without any real diminution of nerve fibres. In Sainton's case, which during life was seen by Marie, the condition of the nervous system was studied by the methods of Nissl, Marchi, and Weigert. The condition found in this case and in Marinesco's were as follows. There was no diminution in the number of the cells of the anterior horn. They were, however, smaller than normal and had lost their processes. Some were in an advanced state of chromatolysis, with a large amount of pigment present, and occasionally the nucleus was absent. Cells of the posterior horns were diminished in number and atrophied; the cells of Clarke's column were present, but the network of fibres was atrophied. In the white matter the antero-lateral region was normal in Marinesco's case, slightly sclerosed in the pyramidal region in Sainton's, this change being perhaps connected with an old hemiplegia. Important lesions were found in the posterior columns and were present throughout their whole extent. They consisted in an intense degeneration of Burdach's tract and a less marked but similar condition in Goll's column. Lissauer's zone was in the lumbar region slightly affected, but elsewhere normal. In Marinesco's case the posterior roots were affected throughout the length of the cord; in Sainton's very little change existed in the cervical region. The ganglia themselves showed no definite changes except that the presence of pigment was very marked. With regard to the nerves there was nothing abnormal to the naked eye, but microscopically some of the fibres showed complete degeneration with breaking up of the myelin, in places naked axis cylinders were found, sometimes surrounded by empty sheaths. The nerve-fibres were diminished in number and there was an increase of interstitial tissue. The muscles showed very marked changes, diminution in the number of fibres, loss of striation, fatty changes, and increase in connective tissue.

In considering the nature of these lesions it must first be decided whether the involvement of the cells of the anterior horns is a primary affection. If the degenerative changes in the cells were the cause of the peripheral nerve lesion it seems more probable that some actual disappearance would have been observed, as is the case in the ordinary Aran-Duchenne type. On the other hand, the lesions above described agree very well with what is now known as the result of section of peripheral nerves or anterior roots, when a chromatolysis of the cells, the "*reaction à distance*" of Marinesco, occurs. This change is, indeed, found to some extent in ordinary peripheral neuritis. The fundamental fact in the pathology, however, is its hereditary nature. The disease never appears very soon after birth, but certain parts of the nervous system are especially vulnerable and liable to a retrograde change when exposed to influences which may be so slight as to escape observation or to some definite toxic condition. In this hereditary defect the disease appears to be related to such conditions as have been described by Friedreich, Sanger Brown, and Nonne, and the hereditary ataxia of Déjerine and Sottas in which last the morbid anatomy is also an interstitial neuritis. Hoffmann considers the best title for the disease to be "progressive neural muscular atrophy," implying that it is a general affection of the neuron.

Though the various diseases due to primary defect in the nervous system often follow definite types, it would appear that the line of distinction cannot always be sharply drawn. Thus cases have been recorded which, whilst resembling the peroneal type, have certain added symptoms showing a wider primary weakness of the nervous system. Vizioli<sup>13</sup> mentions

<sup>6</sup> Revue de Médecine, 1890, p. 441.

<sup>7</sup> Brain, 1888, p. 230.

<sup>8</sup> Ibid., vol. vii. <sup>9</sup> Ibid., vol. xiii., 1890, p. 456.

<sup>10</sup> Archiv für Psychiatrie und Nervenkrankheiten, Band xxix., p. 400.

<sup>11</sup> Virchow's Archiv, 1855, Band viii., p. 537.

<sup>12</sup> Archives de Médecine Expérimentale, 1889.

<sup>13</sup> Medicinisch Chirurgische Königliche Akademie zu Neapel, 1889 (reference in Hoffmann).

the case of a father and two sons who, in addition to peroneal atrophy, suffered from burning paroxysmal pains, and in two of the three there was optic atrophy. In Ormerod's, Sainton's, and one of Egger's cases there was some difficulty in passing urine. Dubreuilh mentions myosis as being present in one of his cases, and Siemerling<sup>14</sup> has noticed the Argyll-Robertson pupil. In some of Déjerine and Sottas' cases the symptoms resembled Friedreich's disease; in some they were more like tabes. Nor can we rely on the grouping of the affected muscles as being quite characteristic. Whereas in Charcot and Marie's case and in Tooth's case the shoulder and facial muscles were free, several cases apparently belonging to the class now under discussion are recorded in which the trapezius, deltoid, pectoralis major, and spinati muscles were atrophied. Dubreuilh mentions in one of his cases that the facial muscles were, under emotional conditions, absolutely immobile, and the failure of these muscles to react to electrical stimuli has also been noticed. Oppenheim and Cassirer<sup>15</sup> have recorded an isolated case of paralysis of the peroneal group and atrophy of the small muscles of the hand, of the supinator longus, triceps, and orbicularis oculi. In this curious case no change was found in the cord or peripheral nerves and the writers considered it as one of primary muscular origin.

*Note by Mr. ROBERT JONES.*—The patient in Case 3 complained of considerable pain in both feet, more especially the left. They were both rigid in every direction, in contrast to the ordinary paralytic type, voluntary movements of the toes being very limited. The right foot, which presented the less severe symptoms, required only division of the tendo-Achillis and tibialis posticus, followed by an energetic application of a club-foot wrench, massage, and exercise. The right foot, in addition to the equino-varus, exhibited hyper-extension of the toes and pes cavus. The tendo-Achillis, tibialis posticus, plantar fascia, and deep ligaments were divided and an incision made across the dorsal aspect of the foot opposite the heads of the first phalanges of the toes. An interesting condition was found, all the phalanges being dislocated upwards and backwards. The heads of the first phalanges were removed and the foot by these measures restored into normal shape. The patient made an excellent recovery and can walk long distances. Sachs<sup>16</sup> has recorded similar success from operative treatment in these cases.

## A FEW WORDS ON HEADACHES OF NASAL ORIGIN.

By ADOLPH BRONNER, M.D.,

SENIOR SURGEON TO THE BRADFORD EYE AND EAR HOSPITAL;  
LARYNGOLOGIST TO THE BRADFORD ROYAL INFIRMARY.

THE great enthusiasm raised by the interesting work of Voltolini<sup>1</sup> in 1871 and that of Hack<sup>2</sup> in 1884 has long since given way to a reaction against nasal surgery which is but slowly dying out. A widespread feeling has, rightly or wrongly, got abroad that nasal operations are sometimes performed which are not exactly necessary. Some eminent physicians have, however, gone too far in the other direction. They maintain, for instance, that asthma is rarely, or never, of nasal origin. I am frequently seeing patients suffering from asthma who have been under medical treatment for years and who, in spite of well-marked nasal symptoms, have never had the nose examined.

It is not very generally known that headaches are often due to diseases of the nose and nasal accessory cavities. In many cases nasal trouble does not cause the headache, but only aggravates already existing symptoms, which are due to other causes. In all cases of chronic headache, the cause of which cannot be found and in which there are nasal symptoms (nasal obstruction, discharge, sneezing, &c.) the nose and accessory cavities should be carefully examined and, if necessary, treated. If this were done a large number of cases of so-called incurable headaches would be relieved. We should also not hear so much of the so-called "nervous

headaches," a term which means absolutely nothing and is only a cloak to cover our ignorance.

Nasal headache is often of a neuralgic character and it is then generally caused by disease of one or more of the accessory cavities. It is chiefly supra-orbital or localised in the middle of the head (behind the eyes) or at the top or back of the head. It is usually intermittent, often very severe, and it comes on at certain fixed periods. It is always at its worst in the morning. This is of great clinical importance in distinguishing between frontal pain due to nasal disease and eye-strain. In the latter the pain is always better in the morning and worse in the evening. A diffuse headache is often due to nasal obstruction or rhinitis, but it can also be caused by disease of the accessory cavities. We all know the distressing symptoms which follow a so-called cold in the head (acute rhinitis). Professor Guye of Amsterdam calls the complex of symptoms which follow nasal obstruction or rhinitis "aproxesia," the inability to concentrate the thoughts on any one subject. These symptoms—diminished capacity for work, loss of energy, dislike to go anywhere or to do anything, forgetfulness, loss of memory, general mental depression, &c.—have in some cases been so severe as to cause patients to commit suicide. Often there is a peculiar kind of dizziness, also a diminished resistance to the action of alcohol, tobacco, coffee, or any mental excitement. This is of great "social" importance. The head symptoms due to diseases of the accessory cavities are not at all characteristic or confined to any special area, nor are they of any uniform type. There may be disease of any of the cavities without any pain in the head or, indeed, elsewhere. Empyema of the maxillary antrum seldom causes very severe pain except in acute cases or when the bone is diseased. Apart from the cheek, the pain is generally referred to the frontal region. It is nearly always intermittent. It is important in these cases not to jump at once to the conclusion that the frontal sinus is affected, as is so frequently done. I have seen numerous cases in which disease of the frontal sinus was not only diagnosed because of the frontal pain, but an operation on the sinus had been proposed or even actually performed. Frequently patients complain of a dull, aching pain, extending from the cheek to the head and ear.

Disease of the frontal sinus naturally gives rise to local pain. This is increased on pressure. It often radiates into the head and is sometimes worse over the sinus of the opposite side. Often there is a feeling of pressure and fulness over a large area. The pain is intermittent and is always worse in the morning and decreases towards evening. This would seem to be easily explained by the fact that in the upright position the cavity can be more easily drained. Any sudden movement of the head when riding, running, or going up and down stairs, increases or brings on the pain. This is characteristic of the affections of all the accessory cavities. The pain caused by disease of the ethmoidal cells is not typical or severe. It is chiefly confined to the nose and radiates backwards towards the head. If the anterior ethmoidal cells are affected we have all the symptoms of frontal sinusitis; if the middle or posterior, those of sphenoidal sinusitis. Ethmoidal disease is generally associated with nasal polypi and we thus naturally also find the head symptoms of nasal obstruction. Disease of the sphenoidal sinus is generally not diagnosed. There is usually intense headache in the middle of the head, behind the eyes. The least attempt to work or to read increases the pain. The pain is intermittent and is often absent for days or even weeks. There are frequent attacks of giddiness. Often the head feels full and as if it were going to burst.

It is sometimes difficult to explain how the nasal headache is caused. Often the swollen mucous membrane presses against the bony parts or the accumulation of pus in one or more of the cavities gives rise to severe pain. As soon as the pus can escape the pain ceases. In cases of nasal obstruction the headaches are due to vasomotor disturbances in the brain or venous and lymphatic congestion. In some cases the pains in the head can be at once reproduced if a so-called "painful area" on the middle or lower turbinated bone be touched. The treatment of these cases opens up a wide subject, but the history of a few typical cases may be recorded.

CASE 1.—A man, suffering from nasal obstruction, saw me in June, 1892. This obstruction had persisted for some years, and for a period of from two to three years he had felt "stuffy" in the head, had lost his usual energy, and had

<sup>1</sup> *Neurologisches Centralblatt*, 1c97, p. 569.

<sup>15</sup> *Ibid.*, 1896, p. 718.

<sup>16</sup> *Brain*, vol. xii., 1890, p. 445.

<sup>1</sup> *Die Anwendung der Galvanocautic*, &c.

<sup>2</sup> *Eine Operative Radical Behandlung*, &c.

had severe recurrent attacks of headache which had kept him away from business for days together. I found well-marked hypertrophic rhinitis. The thickened mucous membrane was removed by the cold snare and the galvano-cautery. In a few days there was marked improvement and in from two to three weeks the patient felt perfectly well.

CASE 2.—In April, 1889, I was seen by a man who during the previous six or seven months had had a discharge from the left nostril, accompanied by severe intermittent pain in the cheek and forehead. For days together he would be nearly free from pain, but for two or three days in the week the pain in the head was so severe that he had to stay away from business or even to remain in bed. He was told that he was suffering from "nervous headache." I explored the maxillary antrum and found offensive pus. The antrum was then thoroughly opened and drained, and there was no return of the pain.

CASE 3.—A man, aged 45 years, had had severe pain in the head behind the eyes for 18 months. There was always a feeling of fulness in the head and every few days severe neuralgic pains set in which lasted for several hours. The slightest movement of the head aggravated the pain. There was often a copious purulent discharge from the nose, generally during or after an attack of pain. I found a few nasal polypi. These polypi and part of the enlarged middle turbinate bone were removed, the sphenoidal sinus was opened and scraped and complete cure followed in a few weeks. This case also had been diagnosed as one of "nervous headache."

CASE 4.—On Jan. 14th, 1899, I was seen by a man who had suffered from nasal discharge and frontal pain for some years. During the last few months the pain had been more marked. There was always a dull aching pain in the forehead and nearly every morning after breakfast severe neuralgic pains set in which lasted for an hour or more. The region of the frontal sinus was distinctly painful on pressure. I found numerous nasal polypi growing from the upper turbinate bone. These were removed on several occasions. In May, 1900, I scraped the upper turbinate and opened up the anterior ethmoidal cells. The pains disappeared and have not returned since.

CASE 5.—A young woman, aged 18 years, saw me in 1897. For the previous few years she had suffered from severe headaches, chiefly unilateral, which came on every few days and which lasted for from one hour to three or four hours. The face became red and congested, the head felt as if it were going to burst, and she was obliged to lie down. The lower turbinate of the right side was distinctly enlarged and the mucous membrane was thickened. All kinds of drugs had been tried in vain. In June I applied the galvano-cautery, after which there was slight improvement for a few weeks. In September I removed the lower turbinate under chloroform. The improvement was at once marked, and in a few weeks the headaches ceased altogether.

Diseases of the nose and nasal accessory cavities are extremely common in Yorkshire; in fact, so common that they are often looked upon as a necessary or incurable evil.

Bradford.

## EXCESS OF SALT IN THE DIET A PROBABLE FACTOR IN THE CAUSATION OF CANCER.<sup>1</sup>

By JAMES BRAITHWAITE, M.D. LOND.,  
CONSULTING OBSTETRIC PHYSICIAN AND SURGEON TO THE LEEDS GENERAL INFIRMARY; FORMERLY LECTURER ON GYNAECOLOGY IN THE YORKSHIRE COLLEGE, ETC.

THE nineteenth century, great and fertile as it was in scientific discoveries, could not read the riddle of the cause of cancer and has handed the question down to us still unsolved. The essay, of which this paper is a brief abstract, is an attempt to answer this question by finding some factor common to all cases and circumstances of the disease. Such a factor must exist unless the causes of cancer are multiple. In order to be brief I will at once give the theory which I have formed and afterwards explain and support it by evidence. It is this: 1. That excess of salt in the diet is

one of four factors which originate the disease. This is the essential factor, but it is inoperative without at least one, and probably two, of the others. Excess of salt may arise from individual taste, or from much salt meat, or from too much ordinary meat, which of course involves much salt. The other factors are these. 2. An over-nourished condition of body from more food, and especially more meat, than is required. This condition is rarely met with amongst out-of-door manual workers. 3. An impure condition of body owing to non-use and non-oxidation of the food which has been taken. The amount may have been moderate or even small. The cells of the body in this condition are loaded with effete material. It obtains in old age; in persons who lead indolent, easy, and indoor lives; and locally in organs the active functions of which have ceased. 4. A fourth factor is some local irritant or stimulant, such as friction from the stem of a pipe or irritation from some micro-organism of which no one is actually specific, or ovarian stimulation in the case of the breast. Of these the first must always be present, and probably in some form the fourth and also in all either the second or the third, but not both of them. These factors being in existence the disease may be started in perhaps one epithelial cell or in a mass of cells which grow individually larger and change the nature of their protoplasm, for a cancer cell will not stain with congo red, whilst an epithelial cell takes the stain deeply. The cell becomes a different being with often more than one nucleus. It is itself the parasite, living and growing at the expense of the tissues around it, and contributing nothing to the common good.

This idea was originated in the mind of the writer by his noticing that cancer of the uterus was seldom or never met with amongst the numerous Jewesses attending the gynaecological out-patient department of the Leeds General Infirmary (only one case in 10 years). The experience of the London Hospital, where there is a special Hebrew department, is the same (only one case in five years, against 178 amongst Gentile women). Dr. Abraham Cohen, physician for Jewish out-patients at the Metropolitan Hospital, writes that his experience is the same; and Dr. A. O. Tunstall, medical officer until recently to the Jewish Hospital for Incurables, writes that he has never seen a case of cancer amongst the Jews. If this comparative immunity is correct the only explanations possible are—(1) difference of race, and (2) difference in diet. The latter is far more probable than the former, although there may be something in race.

Another curious fact which may be compared with this is that in the vomit of cancer of the stomach there is no hydrochloric acid, whereas in all other forms of vomit the acid is present. On this point Mr. D'Arcy Power writes: "Your point about the diminution of salt is a good one, but it must not be held to prove too much, for it only shows that a rapid multiplication of cells is taking place in the body. Does not the same diminution take place in pneumonia?" There is a curious observation by Moraczewski in Virchow's *Archiv*<sup>2</sup> that the blood of persons suffering from cancerous anæmia contains a relative increase in chlorides and a diminution in phosphates. This contradicts Mr. Power's explanation of the absence of hydrochloric acid in the vomit of cancer of the stomach.

The difference in diet between Jews and Gentiles consists mainly in the absence of bacon and ham from the diet of the Jews; and as, according to Professor J. McFadyean, Principal of the Royal Veterinary College, the pig is the only domestic animal in which no case of cancer has been met with, it must be the salt and not the flesh of the animal which is to blame; but the Jews also eat less butcher's meat and more fowl and fish than we do. These points all tend to the conclusion that salt is the active factor, but they are not advanced as scientific proofs of the truth of the theory. There is some doubt about the accuracy of the observation about Jewesses, as Mr. M. Umanski of Leeds tells me that he has met with many cases; but if Mr. Umanski is correct, why do we not see them at the Leeds General Infirmary, where Jewesses in my time (1885 to 1899) attended in large numbers, or at the London Hospital, or at the Metropolitan Hospital, or at the Jewish Hospital for Incurables?

There can be no doubt that salt is a powerful stimulant to cell metabolism. Vort<sup>3</sup> published an article upon this subject in 1862, showing that it increases capillary circulation and the oxidation of albumin, and through this the

<sup>1</sup> Abstract of a paper read before the Leeds and West Riding Medico-Chirurgical Society on Nov. 1st, 1901.

<sup>2</sup> Virchow's *Archiv*, vol. cxxxix., p. 385.

<sup>3</sup> British and Foreign Medico-Chirurgical Review, vol. II., 1862, p. 235.

quantity of urea excreted. Breeders of cattle and of horses are well aware of the effect of salt. If it is given to sheep suffering from disease such as sheep-rot it will give vigour and help the tissues to resist the effect of wet. It is absolutely necessary to the growth of minute animal organisms, such as infusoria, which will not grow in distilled water but will grow if half a grain of salt to the pint is added to the water. What, however, may be good in moderation may be bad if taken in excess or if continued too long.

The idea that salt is the essential factor may be arrived at in another way. There is marked in Mr. A. Haviland's cancer map of England, the extensive "cancer field" of Malton and Pickering. I have been to Marishes-road, the worst spot in this field, to examine the conditions there, and came to the conclusion that the only explanations possible are: (1) the regular flooding of the land every winter; (2) the possibility that the thin layer of mud deposited may contain some bacterium, for it is said that if cattle eat the herbage before the mud is washed off by rain they are killed by it; and (3) the very large amount of meat and bacon eaten by the people—viz., three heavy meals a day. Compare this "cancer field" with that of Wetherby, where there are no floods and where the land is high and dry and principally limestone. From this it is evident that the explanation of the Pickering mortality cannot be the flooding of the land or the deposit of mud. The only thing common to the two districts is the diet, which at Wetherby is good, being meat and bacon two or three times a day amongst the farming class and good living amongst the wealthy residential class, and of course much meat means much salt. Dr. J. A. Hargreaves, the medical officer of health, believes that the poorer classes are comparatively exempt and that cancer is a disease of class. He is working at this point as illustrated by his own district.

Nothing can be clearer about cancer than the fact that its incidence is connected with diet; and if our various pieces of knowledge bearing upon diet are compared it will be found that the only constantly present thing is salt. It does not matter what the rest of the food may be, salt must be present, and in excess considering the patient's occupation and mode of life. If salt is absent, cancer is absent. Savages, so far as is known, are exempt from cancer,<sup>4</sup> and they get no salt. All domestic animals except the pig are subject to cancer, and salt is given to sheep, to cows, and to horses, but never to pigs. Sarcoma has been known to occur in the pig, in the testis, but no true case of cancer. Professor McFadyen, has never met with a case. Wild carnivora, with, of course, a pure meat diet, are exempt. No authenticated case has ever been met with amongst them.<sup>5</sup> Of course, they get no salt except in rare instances, as in the case of the buffaloes' "salt licks." On the other hand, when confined in zoological gardens they are given salt and they become subject to cancer. An African hippopotamus has recently died from cancer at the Zoological Gardens in London, and salt had been given to it. I can find no instance of true cancer in any animal which has not had access to salt, but Mr. Roger Williams mentions two cases of sarcoma, one in a plover and the other in a marsupial. Sarcoma, however, is a different disease to true cancer. It might be supposed that the rice-eating natives of India would be exempt from the disease, but they are not. "All natives of India are keen on salt," writes Dr. Andrew Duncan of the School of Tropical Medicine. The rice-eaters are not quite strict vegetarians, as they take fish when they can get it. They eat much food of the pea tribe which contains much nitrogen. Sailors may live for weeks on salt junk and breathe a salt-laden atmosphere, but it does them no great harm because conditions (2) and (3) are absent—i.e., they work hard in the open air. Their mortality from cancer is, however, very high—viz., 44.5 per 100,000, contrasting with that of miners (14.5) and of ironworkers (12.2). The mortality from cancer in London is extremely high in the whole of the district west of a line drawn from Newington-green through London-bridge to Sydenham. This embraces the parts inhabited by the wealthy who take much meat and, of course, with it a corresponding amount of salt. On the other hand, the poor parts, such as Bermondsey, Rotherhithe, the Isle of Dogs, Old Ford, Bow, and Bethnal Green, have a low mortality. It may be replied to this that the average age of the

population in the wealthy parts is higher, but the Registrar-General has published tables for the principal English counties corrected for age and sex, and it is found that the relative mortality from cancer is by this not impugned but only altered a little.

Cancer houses are probably merely houses where there is accommodation to keep a pig and where the diet consists of a good deal of bacon or where a good deal of butchers' meat is consumed, and with it, of course, salt; or where the inhabitants are old but their appetites are still good; or where they are women and live well, but lead indoor lives so that the food is not oxidised. An instance of this was given in which three successive deaths had occurred. The great increase in cancer recently is chiefly amongst men, and is in the stomach and abdominal organs. If there has been a great increase in the consumption of salt, as I believe there has, in consequence of and with a great increase in the consumption of meat, this would explain it, or might do so.

Lyon<sup>6</sup> publishes the result of a research into the distribution and statistics of cancer in Buffalo for the period 1880-1899. The material analysed consisted of the mortality records of the City Board of Health, and in estimating the distribution the patients in 2005 cases whose residence was known were assigned to their proper quarters. A marked concentration was found in the German wards, and no other relation than that of race could be determined to exist between this area of concentration and local conditions. Tables constructed to show racial prevalence demonstrated that cancer was much more frequent among the foreign-born population—and particularly the Germans—than among the native-born inhabitants. A low cancer-rate was found in the Italian quarter, and a correspondingly low position was occupied by the Italians in the race table. The Germans and Poles exhibited two other peculiarities in that the rate among males closely approximated the rates among females, whereas among other classes the females were almost double the males. These two nationalities were also distinguished by the very large number of cases of cancer of the stomach and the comparatively small number of cases of cancer of the uterus and breast. Lyon considers that the figures support the idea that the peculiar diet of the Germans is responsible for the high rate amongst them. The statistics show a general increase in the cancer-rate of from 32 to 52 per 100,000 of population. What the peculiar diet of the Germans is, is not stated, but we may pretty correctly guess it. This theory is not opposed to the idea that a micro-organism is an exciting cause of cancer; in fact, it requires or presupposes some local irritant. But for this purpose one organism would do as well as another, and none would be actually specific.

The interesting discoveries of Plimmer carry conviction to my mind that a parasite is present in the active growing cells of most cancerous tumours. Mr. H. G. Plimmer found these parasites in 1130 cases out of 1220. There were reasons why they were not found in 90 cases and 58 cases remain in which they could not be found. These parasites, however, may follow the commencing stage of the tumour instead of preceding it. If they precede it, which they must do if they cause it, they ought to be found apart from the disease. Moreover, micro-organisms as the sole cause of cancer do not harmonise with most of the facts about the disease. They would not account for the comparative immunity of Jewesses or for the undoubted fact that prosperity and high living increase the tendency to the disease. These ought to act the other way. If it were a parasite surely the damp, water-logged Isle of Dogs should be a paradise for it, whereas that district is comparatively healthy; while Hampstead, which lies high and dry and is covered with excellent houses standing in their own grounds, has a high mortality.

In conclusion, I do not assert that I have produced absolutely conclusive proof of the truth of the theory advanced. I consider that in its present stage the theory is more a suggestion than anything else—merely a new idea for consideration. At the same time I would ask, Has not nature, and have not some observers, made scientific experiments for us? Have not the good people of Malton and Pickering kindly fed themselves with beef and bacon three times a day for our instruction? and have we not the result

<sup>4</sup> W. Roger Williams THE LANCET, Nov. 4th, 1899, p. 1258.

<sup>5</sup> Ibid.

<sup>6</sup> American Journal of the Medical Sciences, June, 1901.

before us? This is as scientific an experiment as can be made, and the same applies to most of the other facts. Whilst writing this an old woman, aged 72 years, has applied for advice with cancer of the breast. She has bacon for breakfast and bacon for dinner. She lives in an ancient toll-bar house on an unfrequented road, she seldom goes out, and she can get no other food. Has not this woman, in a certain sense, made herself the subject of a scientific experiment? If this theory should turn out to be true its use would be chiefly in prevention, for it is not likely that deprivation of salt would cure an already established disease, although it might check its advance. It may, however, be tried, and also tried along with any other mode of treatment, as with a view to prevent recurrence after surgical operations, or with oöphorectomy and thyroid in cancer of the breast, as has been so ably advocated by Dr. G. T. Beatson and Mr. G. E. Herman, to whom, and especially to Mr. Roger Williams and Mr. Haviland, I tender my thanks for the many interesting papers from which I have taken most of my facts.

Leds.

### A CASE OF ASTHENIC BULBAR PARALYSIS (MYASTHENIA GRAVIS).

By WALTER K. HUNTER, M.D., D.Sc. GLASG.

ASSISTANT PHYSICIAN TO THE GLASGOW ROYAL INFIRMARY AND  
EXTRA PHYSICIAN TO THE ROYAL HOSPITAL FOR SICK  
CHILDREN, GLASGOW.

THE classification of the various forms of bulbar paralysis has always been a subject of much interest to the neurologist, but with the exception of the so-called "asthenic" variety their pathology seems now to be fairly well understood and to be no longer a matter of serious debate. With "asthenic" bulbar paralysis, however, it is different, for here no lesion has yet been found; and, indeed, it is a question if this disease should still be classified as a bulbar paralysis, and should not rather be considered as a general myasthenia in which the muscles supplied from the bulb are more specially affected than those receiving their enervation from other parts of the nervous system. But it is, perhaps, premature to discuss the pathogenesis of asthenic bulbar paralysis, for we have so few data to go upon. The disease, however, is very rare, not more than some 12 cases having been recorded in this country; and though there seems to have been a larger number than this abroad, I feel that I need have no hesitation in reporting a case which recently came under observation in the Glasgow Royal Infirmary, especially as I have made a somewhat careful microscopical examination of such parts of the nervous system as I have been able to obtain possession of.

A man, aged 58 years, was admitted to the Glasgow Royal Infirmary under the care of Dr. J. L. Steven on Nov. 17th, 1899, with a complaint of difficulty in speaking and swallowing and of an intermittent weakness in the extensor muscles of the neck. These symptoms had set in some two or three months before admission, and the patient thought that they were partly the result of his having carried on his head, on two successive days, a heavy load of books, for on the second day he was quite exhausted and felt very "nervous." Since this time his head had tended to droop forwards on to the chest. This was specially marked if he had been walking for a while, for then the head would fall forwards, usually towards the left, necessitating his lifting it up again with his hands. This symptom gradually got worse and sometimes the head could not be kept upright unless held up in that position. The defect in speech would only come on after he had been talking for some time, and after a rest the speaking was always more fluent and distinct. The difficulty in swallowing was also intermittent, and when present consisted in what the patient called a "spluttering and coughing" over his food. At such times the liquids would come back through the nose. Three weeks before admission there was some slight weakness noticed in both arms, especially the left, and occasionally there was a flexor contraction in the second, third, and fourth fingers of the right hand. The patient had been a soldier for 21 years and a good deal of this time was spent in India. He had had several attacks of ague and with one of these he was in hospital for 10 months. He had scarlet fever and measles

in childhood, but could not remember having had rheumatism. He had suffered from hæmorrhoids almost all his life and from time to time lost a considerable amount of blood. He had been a total abstainer since 1877. The family history was of no importance; it showed no evidence of nervous ailment among any of his relatives.

On admission the patient was noted to be pale and anæmic and he had quite the appearance of one suffering from a more or less profound anæmia. There was no evidence of paralysis in any of the muscles of the face. The tongue could be protruded without much difficulty, but on examining the fauces it was noted that there was a firm adhesion between the left tonsil and the postero-lateral part of the dorsum of the tongue (this, the patient said, had dated from the attack of scarlet fever when he was six years old, but all the time he was in the army and performing the duties of a non-commissioned officer it in no way affected his power of speech.) The speech varied greatly in distinctness from time to time. Sometimes it was very suggestive of the articulation of bulbar paralysis; at other times there was just a slight nasal quality in the words. As the patient talked his articulation got worse but after a period of rest it was greatly improved. During the first few days in the hospital he at times complained that he could not swallow his food, and if he tried to do so there was usually a good deal of coughing and the fluids would return through the nose. But this was by no means constant, and frequently he would swallow both solids and liquids with no apparent difficulty. The most striking physical sign, however, was what at first looked like a spasmodic contraction of the flexors of the neck, causing the head to fall forwards and towards one or other side on to the chest. The patient would prevent this by supporting the forehead with his fingers; or, again, he would clasp his hands behind his neck, this seeming as if it supported some weakness in the extensors of the neck, for he complained of a sense of weakness in that region. When he began to walk he would hold himself fairly erect, but after a few steps the head would fall forwards on to the chest, and it was quite evident that when walking there was even a greater difficulty in holding the head erect than when he was sitting still. Careful examination of the neck at these times could elicit no appearance of spasm in the sterno-mastoids or in any other muscles of the neck, and it was quite evident that the fault lay in the trapezius and possibly in the erector spine muscles. There seemed, too, to be a certain amount of wasting in the upper fibres of the trapezius. There was complaint of a sense of weakness in the left hand, but no definite paralysis could be made out. The left hand registered 19 kilogrammes and the right 30 kilogrammes. At times there was a distinct spasmodic flexion at the metacarpo-phalangeal joints of the second, third, and fourth fingers of the right hand, and when this was so it was with difficulty that the spasm could be overcome by passive movement. There was no loss of power in the legs and the patient seemed to walk without any apparent trouble. The patellar reflexes were unduly active, but there was neither knee clonus nor ankle clonus. There was no defect of sensation in the arms or legs. Examination of the eyes showed the visual acuity to be fairly normal and there was no contraction of the fields of vision. The pupils were equal and responded readily to light, but rather sluggishly to accommodation. There was some slight paralysis of the right internal rectus, for when the patient looked towards the left the right eyeball lagged behind the left, and there was crossed diplopia beginning at the mid line and increasing as the image passed to the left. Examination of the heart, lungs, and kidneys proved these organs to be healthy.

From the time of admission onwards the progress of the case was slow, but always for the worse. From Dec. 20th the head was almost constantly lying down on the chest and the weakness in the hands and arms was so marked that the patient had difficulty in giving the head the support necessary to raise it up. At this date the right hand registered 20 kilogrammes and the left 14 kilogrammes. Articulation, it is noted, varied, but at times it was so bad that it was impossible to understand what the patient was talking about. The difficulty in swallowing had now become an urgent symptom and some days later it was necessary to give food by means of a stomach tube. On Jan. 8th, 1900, an attack of urgent dyspnoea lasting 10 minutes set in. The distress was extreme, though the patient complained of no actual pain. He was quite conscious throughout and there was no cyanosis. On the 21st and 22nd there were again similar

signs of dyspnoea, but not so severe though of longer duration. The last attack was of five hours' duration and ended with the death of the patient. For a few days preceding this there were noted to be ptosis of the left eye and an occasional strabismus in the right eye.

At the post-mortem examination the body was seen to be much emaciated, and there was general atrophy of the internal organs. The heart was small but was otherwise healthy. The liver was also small and greatly atrophied in its left lobe, which had a cicatrix in its anterior surface extending deep into one of the portal areas. This might have been the result of a syphilitic gumma, but the healing was so complete that one could not be certain. The kidneys and spleen were small but quite healthy. The stomach and intestines were atrophied and the intestines showed a considerable general catarrhal condition of their mucous membrane. The brain and cord presented to the naked eye perfectly healthy appearances.

The pons, medulla, and cord were fixed in formol (10 per cent.), and later parts were transferred to Müller's fluid. Sections were stained by (a) Weigert's method, (b) Nissl's method, and (c) with hæmatoxylin and eosin. With Weigert's staining sections from different levels of the pons, medulla, and cord were carefully examined, but these all seemed to be perfectly normal. There was no suggestion of any degenerative change in any of the motor or sensory tracts or in any of the anterior or posterior nerve roots. With Nissl's stain the results were practically the same. Special attention was paid to the third and fourth segments of the cord (which contain ganglion cells of the spinal accessory and phrenic nerves), but no abnormality was to be found. Throughout the whole cord the motor ganglion cells stained extremely well and only a very small proportion of "ghost-cells" was to be found. On counting the cells in the various groups of the anterior horns there was doubtless a diminution of about 30 per cent. in their number. This, however, did not affect one group more than another and seemed to be the same for all levels of the cord. In my experience it is usual to have in old people such a diminution in the number of ganglion cells, and therefore I think that for the case under consideration it has no special significance. Many cells contained yellow pigment granules. This was most marked in the lumbo-sacral region, where quite 50 per cent. of the ganglion cells were pigmented and where many had their Nissl granules almost entirely replaced by the pigment. The pigment was faintly yellow and was made up of very fine granules (the granules were finer and the yellow colour was fainter than is usually found in ganglion cells). This pigmentation was less marked in the cells of the dorsal and cervical regions. In the pons and medulla the appearances corresponded to those in the cord. The ganglion cells of the twelfth, tenth (motor), seventh, and fifth (motor) nuclei seemed to be perfectly normal. Of these the cells of the seventh were the only ones that contained any considerable amount of pigment. The section stained with Nissl's method did not include the third, fourth, and sixth nuclei. The cells of the motor cortex showed no definite abnormality. In the sections stained with hæmatoxylin and eosin there was little that was abnormal to note. The vessels seemed unduly dilated (this may have been due to the fixing in formol), and many showed a distinct colloid degeneration in their walls. In some sections, too, there seemed to be a slight dilatation of the perivascular spaces, but there was no apparent exudation from the vessels, and there were no hæmorrhages.

It will be observed that none of the peripheral nerves were examined. This was unfortunate, for though the intermittent nature of the symptoms did not point to a neuritis yet the case is incomplete without a histological examination of the nerves. The affected muscles, too, should have been examined, especially in regard to the nerve-endings. The case clinically, however, presents a typical example of the so-called asthenic bulbar paralysis, or, perhaps more correctly, myasthenia gravis. This, I think, will be evident to anyone who is familiar with that condition; and for those who are not the admirable "digest" by Dr. Harry Campbell and Dr. Edwin Bramwell in the Summer Number, 1900, of *Brain*, will give an ample account of this interesting disease.

In conclusion, I have to thank Dr. Steven for his kindness in placing at my disposal the clinical notes of this case and for permission to publish it. I am likewise indebted to Dr. C. Workman who also placed at my disposal for microscopical examination the brain and spinal cord.

Glasgow.

## DURATION OF RESIDENCE IN SANATORIUMS FOR PULMONARY TUBERCULOSIS.

BY THOMPSON CAMPBELL, M.D. GLASC.,  
LATE PHYSICIAN TO THE CONSUMPTION SANATORIUM, BRIDGE  
OF WEIR, N.B.

WHILE the question of the erection of sanatoriums is being discussed in various parts of the country a point which calls for some consideration is the length of time during which patients suffering from pulmonary tuberculosis will require to be kept under treatment to give some reasonable prospect of restoration to health.

Naturally, the earlier the stage of the disease at the time of admission the shorter will be the period of residence necessary. Among the working classes, unfortunately, the seeming necessity for pursuing their employment as long as possible militates against their receiving institutional treatment before the disease has made considerable inroads, and until they recognise the fact that it will be greatly to their advantage to cease from work immediately the nature of the disease is made known to them by their medical attendants directors of sanatoriums must be prepared to prolong the period of residence considerably beyond the usual hospital term. Another fact which calls for as extended a period of treatment as the circumstances of the sanatorium permit is that a number of the patients will return to home surroundings which are not ideal in their conditions, though if properly trained and impressed with the necessity of continuing to follow out the important details of the regimen they will improve these conditions as far as lies in their power. To fix a limit of six weeks is to confess that the aim of an institution is merely the amelioration of the patient's condition, and would result in filling the "State on dismissal" column of a sanatorium report with the word "Improved"—not a very valuable or substantial benefit in the case of a disease which we propose to combat on the assumption that it is, within certain limits, a curable malady.

The shortest period of treatment—that is, in a case in which the physical signs give evidence that the disease is in an early stage—will by most sanatorium physicians be fixed at three months. Thus a patient may present such signs as diminution of percussion resonance at one apex, prolongation of expiration, increased vocal resonance, and a few small clicking râles accompanying the breath sounds; and with a small quantity of expectoration, a moderate pulse-rate, and no great evening exacerbation of temperature, a good result may be secured after three months' sanatorium treatment. Unfortunately, however, only a small percentage of patients belonging to the working classes seek treatment at a time when such a period would suffice, and the majority admitted are found to have one lung affected in an intermediate, and the other in an early, stage. The physical signs, therefore, may be found to comprise dulness to percussion over the upper lobe of one lung, bronchial breathing, marked increase of vocal resonance, and a series of medium-sized clicking râles accompanying inspiration and expiration, with diminution of percussion resonance over the other apex, prolonged expiration, and a few small clicking râles. In such cases a period of treatment less than six months will not be found to give an approach to recovery, and this should therefore be the average limit, taking into consideration on the one hand the maximum benefit to the individual and on the other the pressure on the accommodation which exists in most charitable institutions. Thus, each bed could on an average accommodate only two patients in a year, and in making provision for consumptives this factor should be kept in view by public bodies and the directors of sanatoriums for the poorer classes if their aim be to restore sufferers to the position of wage-earners. It need hardly be said that a longer residence would be beneficial in a number of cases, but until the meagre provision which exists at present is largely extended a period of six months may be looked upon as a fair limit.

The question may, however, arise whether it is advisable to retain patients who are not found after a certain interval to be making satisfactory progress towards recovery; but if care has been taken to debar from admission cases which

are in an advanced stage this point will only infrequently call for decision. If after strict confinement to bed for about six weeks, it appears that the individual does not come up to the standard of those who are permitted to rise from bed, it may be accepted as a fact that at the end of six months it would not be possible for that patient to resume his employment with a prospect of being able to follow it for any length of time, and a decision must be come to accordingly. Generally this want of success is due to a considerable degree of pyrexia which resists all treatment and is attributed in many quarters to "mixed infection."

The duration of residence thus creates a standard for the admission of patients, and some of the points which assist in determining the acceptance or rejection of patients may be here noted. One feature in a case which would negative the admission of a patient is the presence of a habitual evening exacerbation of temperature to the extent of from 102° to 104°. Of course a temporary condition such as this, especially at the onset of the disease, would not be a barrier to a hopeful prognosis, but if it were habitually present in a patient with the disease only in an intermediate stage, it would, in my opinion, debar him from admission. In some cases, too, there is found to be a marked prostration of the vital powers at a time when physical examination of the chest does not reveal a marked lesion, which gives little hope of treatment proving of any avail; and this is especially the case in some who possess the vulnerability of tissue included in the term "hereditary predisposition." Undoubtedly cases with a marked proclivity, evidenced in a bad family history, sometimes run a more acute course and gave rise to greater difficulty in overcoming the morbid process. A moderate pulse-rate—not exceeding 100 when the individual lies quietly in bed—is a point in favour of admission; and a patient with a quiescent cavity, whose pulse may run at 84 per minute, will in all likelihood prove amenable to treatment. The presence of laryngeal tuberculosis, if more than slight in degree, complicating the pulmonary affection would weigh against the probability of acceptance; and the existence of albuminuria, if considered to be dependent on the morbid process in the lungs, would also militate against admission.

Thus on the early recognition of the presence of tuberculosis in the lungs the duration of residence in a sanatorium and the success of treatment largely depend, and therefore the establishment by public bodies of laboratories to which specimens of sputum can be sent by medical practitioners for examination free of charge will prove an invaluable boon. Still, it may be asked what advantage arises from the early diagnosis of a case if a period of six months must elapse ere a patient can be admitted owing to lack of accommodation; and this emphasises the demand for the erection of a sufficient number of sanatoriums to deal with cases when they really are in the early stage, for a shorter period of residence would then suffice, the cost per patient would be correspondingly less, and we could look forward to a larger number appearing under the heading "Disease arrested" in the records of sanatoriums.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

### ST. THOMAS'S HOSPITAL.

#### A CASE OF STRANGULATION OF THE STOMACH.

(Under the care of Dr. HECTOR MACKENZIE and Mr. W. H. BATTLE.)

FOR the notes of the case we are indebted to Mr. H. H. R. Clarke, Mr. T. Burfield, and Mr. Ibbotson (clinical clerk).

The patient, a Spanish newspaper correspondent, aged 30 years, was admitted, under the care of Dr. Hector Mackenzie, into St. Thomas's Hospital late in the night of April 15th, 1901. He was then in a state of extreme collapse and it required the injection of three pints of saline fluid with

brandy into his veins to revive him. He was of somewhat cadaverous aspect, with black hair and eyes; the eyes were sunken and the body was emaciated. He complained of pain in the upper part of the abdomen and was frequently sick, bringing up small quantities of watery fluid. His thirst was great. On examination of the abdomen this was found to present a curious appearance, being boat-shaped and the wall being retracted throughout. There was some tenderness in the epigastrium, especially to the left of the middle line. The bowels had not acted for six days. There was a scar over the left side of the chest in the anterior axillary line.

The history, which was obtained with some difficulty, was a rather tragic one. It was stated that the patient had fought five duels, all of them apparently on account of libellous paragraphs by the correspondents of other newspapers; rapiers were used but not until the last occasion was he wounded. His opponent in the duel which was last arranged thought that it would be wiser to fix things beforehand and so save undesired risk to himself. Accordingly he hired a man to stab the patient, and this was done with a poniard in the left side at the point marked now by the scar. It was said that "the lining of his stomach was exposed," and he was laid up for some weeks. This occurred some seven or eight years ago, and no trouble was experienced until three years afterwards when he was seized with an attack of pain in the left side of the upper abdomen and severe vomiting. Three years before he had an attack like the one from which he was suffering on admission, there being vomiting, great collapse, and pain in the wounded region. He had also had slighter attacks of vomiting off and on since. Seven days before admission, when crossing the Channel, he suffered much from sea-sickness and had vomited almost constantly since. Before coming to the hospital he was seen by a medical man who gave him a subcutaneous injection of solution of strychnine to rally him but who was afraid he could not live many hours.

The patient was far too collapsed for any operative measure to be thought of on the night of admission, but on the following day Dr. Mackenzie asked Mr. Battle to see him. The vomiting and thirst continued, he was excited and restless, placed his fingers in his throat to make himself more sick, and asked for a large quantity of water to aid the vomiting. The reason he did this was because he had found that in the less severe attacks of pain and sickness the use of the finger in this way with the effect produced would usually result in relief. The temperature was 96° F. and the pulse was hardly perceptible. There appeared to be some fullness under the left lower ribs but no dullness. The chest was well formed and the ribs showed prominently owing to the great loss of flesh. The note on percussion was resonant all over and the breath sounds were normal. There were a few crepitations at the base. The cardiac dullness began at the fourth rib and did not extend to the right beyond the left edge of the sternum. The apex beat was in the fifth interspace, one inch internal to the nipple line. The sounds were normal. Urine was very scanty, of specific gravity 1020, and contained no albumin or sugar. The tongue was fairly clean, having a slight white coating.

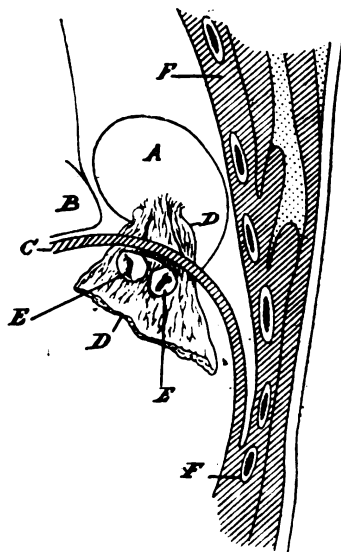
The condition of the patient was a desperate one, but it was thought best to give him the chance of operation, although another saline injection of three pints was required before his state appeared to admit of anything being done. This injection rapidly improved the pulse.

An incision was made under the left costal margin commencing two inches to the left of the middle line and extending outwards for four inches. All the intestines, both small and large, were found to be collapsed and were empty with the exception of the colon and sigmoid flexure in which scybalous masses could be felt. The stomach could not be felt at first. The descending colon was found to pass upwards beyond the spleen and was traced to an opening in the diaphragm from which it was easily withdrawn. To the margin of this opening the omentum was adherent and none of it could be pulled away. After a continued search for the stomach the pylorus was felt to the inner side of the opening in the diaphragm and the greater part of the organ which had passed through the opening was released and reduced into the abdomen by alternate traction on different parts. There was a distinct mark of constriction where the stomach had been nipped by the margin of the opening and the part which had been involved in the hernia was thickened, oedematous, and congested. No incision was required and the stomach showed no tendency to re-enter the space from

which it had been withdrawn. The question of radical cure was not seriously considered, for the patient was too ill to have undergone it had it been feasible. The abdominal wound was quickly sutured and the patient was sent back to bed, when one-third of a grain of morphine was given subcutaneously and a pint of saline fluid was administered per rectum.

Pain and vomiting ceased directly after the operation, and the intense thirst which continued was relieved by permitting him to drink at frequent intervals and by the administration of enemata of normal saline. He was still very excitable and had to be watched. The temperature continued subnormal. On the 18th a porter was specially appointed to watch him as he was more restless and excited, loudly affirming that he intended to die, and he even began to practise the act as he thought it should be done. He would throw his head back on the pillow, stiffen his limbs, close his eyes, let the lower jaw fall, and hold his breath. During one of these performances on the 19th about 1.30 P.M. he expired. The extreme depression of the temperature during the time that the patient was under treatment is remarkable, as is shown by the following record: April 15th, evening, 95°; 16th, morning, 96°, evening, 96.6°; 17th, morning, 96°, evening, 95.4°; 18th, morning, 96.4°, mid-day, 95.2°, evening, 96.6°; and 19th, morning, 96.2°.

**Necropsy.**—At the post-mortem examination, which was made by Dr. J. J. Perkins, the upper part of the abdomen showed plastic peritonitis most intense at the point where the stomach was in contact with the liver; here there was a large patch of yellow lymph. On the stomach was visible an indurated red line on the anterior surface to the pyloric side of its mid-line. It seemed probable that this mark indicated the line where the stomach had originally been incarcerated in the opening in the diaphragm and that the hernia of the colon (transverse) was quite recent and without strangulation. The peritonitis from



Diagrammatic section of the left chest viewed from the front. A, Hernial sac in the pleural cavity. B, Pericardium. C, Diaphragm. D, Omentum passing through the diaphragm together with E, Cut transverse colon. F, Chest wall.

its position was thought probably due to the passage of organisms from the stomach at the line of strangulation. Pleurisy was present on both sides, chiefly on the left, and the lower lobe of the left lung was solid from septic pneumonia.

Mr. S. G. Shattock reported as follows: "The aperture in the diaphragm is now circular, one and a quarter inches in diameter, and lies two and a half inches above the lowest part of the left costal margin, the protrusion itself being close behind the ribs and free in the pleural cavity; in relation to the pericardium the aperture (which is altogether in the muscular portion of the diaphragm) lies one inch posteriorly to the limit of the pericardial sac. The protrusion

has no proper sac of peritoneum, but a spurious sac furnished by the omentum; this covering is either incomplete or adherent over parts of the bowel—i.e., no membrane can be raised in such situations as it can elsewhere. There is no communication between the pleural and peritoneal cavities. On the inferior aspect, omentum passes through the diaphragmatic opening and in-going and out-going portions of intestine, each of these exhibiting appendices epiploicæ and the arrangement of muscular tissue peculiar to the colon. Neither the omentum nor the intestine admits of withdrawal."

**Remarks by Dr. MACKENZIE and Mr. BATTLE.**—This case has been reported at some length, for not only is it interesting from the fact that it is one of the few diaphragmatic hernias submitted to operation in this country, but because it illustrates the clinical course of strangulation of the stomach. In nearly every recorded instance of strangulation of the stomach through an opening in the diaphragm there has been some complication, either of recent injury or strangulation of intestine in the sac. Here there was intestine in the hernia, but it was not strangulated. Many years ago Sir S. Wilks<sup>1</sup> drew attention to the occurrence of excessive thirst in cases in which the stomach had passed into the pleural cavity as a result of recent rupture of the diaphragm and considered it an important symptom of strangulation of the stomach. Our case showed this as a prominent symptom and it is to be expected, for hardly any fluid can enter the system on account of the frequent vomiting and diminished area for absorption. The other symptoms are pain, referred to the upper part of the abdomen, urgent vomiting, rapid emaciation, a boat-shaped abdomen, constipation, and the excretion of only a small quantity of urine. It is possible that in many cases it is necessary to add evidence of displacement of the lung and the heart, with dyspnoea, dulness, or hyper-resonance on percussion on the left side of the chest, and other signs of the presence of a protrusion of abdominal contents into the pleura. In our patient abnormal chest signs were wanting.

Lermier<sup>2</sup> described a case in which death took place on the tenth day of illness. The history could not be obtained as the man was too ill even on the third day to give it. Here the pain was in the left chest and respiration was difficult, whilst he suffered from a burning thirst (*soif brûlante*). The necropsy showed that the stomach with much omentum had passed into the left pleura.

Dr. R. Macnab<sup>3</sup> published the notes of a case under his care, that of a girl, aged 15 years, who developed symptoms three years after operation for empyema. She suffered from violent sickness and retching, and there was marked retraction of the abdomen, but not much pain. She improved after the first attack of vomiting but got worse again. She lived from the Tuesday to the Friday, and on the third day vomited coffee-ground material; she died in a state of collapse. The whole stomach from the cardiac to the pyloric end had passed through the opening, and there was also much omentum with it.

A case of diaphragmatic hernia in some respects resembling our own case has been recorded by Dr. C. D. B. Hale and Dr. J. F. Goodhart.<sup>4</sup> The patient was well until a few months before his death. The symptoms at first consisted of waterbrash and acid eructations with occasional vomiting. Later the patient complained of heat and pain at the ensiform cartilage and constantly brought up mouthfuls of dark-coloured mucus, while at intervals of a week or 10 days he vomited enormous quantities of fluid of a similar nature. The bowels were obstinately confined. After the diet was limited to peptonised milk the vomiting entirely ceased for a month but then returned as copiously as ever. Emaciation became rapid and extreme. Tympanic resonance posteriorly as high as the middle of the left scapula and retraction of the abdomen were the only abnormal signs present. The condition was believed to be one of carcinoma of the stomach. At the necropsy the heart and lungs occupied their usual positions. A small part of the cardiac end of the stomach only was in the abdominal cavity; the remainder, along with a piece of the splenic flexure, had entered the thorax through an aperture between the crura of the diaphragm. The stomach was enormously dilated and lay in the posterior mediastinum across the spine and on the bottom of the left pleura. The hernial contents lay in a

<sup>1</sup> THE LANCET, Oct. 23rd, 1858, p. 434.

<sup>2</sup> Bulletin de la Faculté de Médecine de Paris, 1820-21, vol. vii., p. 78.

<sup>3</sup> THE LANCET, Jan. 5th, 1878, p. 11.

<sup>4</sup> Transactions of the Clinical Society, vol. xxvi., p. 105.

distinct sac situated immediately above the diaphragm, and consisted of two-thirds of the stomach, a large loop of the transverse colon, the lesser omentum, the greater part of the pancreas, and the duodenum.

These are the best instances of uncomplicated strangulation of the stomach that we have been able to collect, for although the stomach is so frequently found in this hernia the cause of death is either inflammation within the chest or a perforation of the stomach or intestine. The number of cases of diaphragmatic hernia recorded is now large (more than 300), curiosities of the post-mortem room most of them, but few diagnosed during life. Traumatic phrenic hernia is usually a false one, with its contents closely adherent to the margin of the opening and to the pleura. Incision of the required size into the chest will give rise to pneumothorax, and although this may not be fatal it adds to the severity of the operation. That it is possible under some favourable conditions to do a great deal is shown by M. Llobet's success.<sup>4</sup> He operated on a man, aged 30 years, who 10 years before had received a punctured wound in the left side in the eighth interspace which was followed in 48 hours by hernial swelling. A flap including the seventh and ninth ribs was made, the omentum and sac were resected, and the orifice was closed with catgut. After the closure of the external wound the air was removed from the pleura by aspiration. Humbert, Leisrink, and Mikulicz have also obtained successes. It may be possible to close a wound in the diaphragm by operation through the chest wall and so prevent a strangulation. Pestemsky is credited with having closed a wound in the diaphragm by operation in this way; the wound was in the eleventh intercostal space. There was a herniated loop of gut in the pleura and pneumothorax followed its replacement in the abdomen. The margins of the diaphragmatic wound were approximated and sutured. The patient had quite recovered on the eighteenth day. If the instrument that caused the wound of the diaphragm has wounded the abdominal contents also, it may be best to combine the methods and to make incision through the abdominal wall as well as through the chest wall.

When all has been said a large majority of cases of wound of the diaphragm must from their very nature prove fatal, and the same is true of ruptures caused by crushes or sudden strain. The hernia, also, when strangulated is apt to run a rapid course, for the parts involved are very important and their strangulation is accompanied by severe shock. There is not much time to try palliative measures, and if the patient does not come under surgical operation soon the prognosis is very bad. It is hoped that an attempt will be made to relieve these cases more frequently and without delay, for it is only in this manner that any measure of relief can be expected. It is probable that the abdominal route will prove the most frequently satisfactory.

### SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

A REMARKABLE CASE OF DOUBLE PYOSALPINX WITH  
TORSION OF BOTH PEDICLES.

(Under the care of Mr. WALTER L. WOOLLCOMBE.)

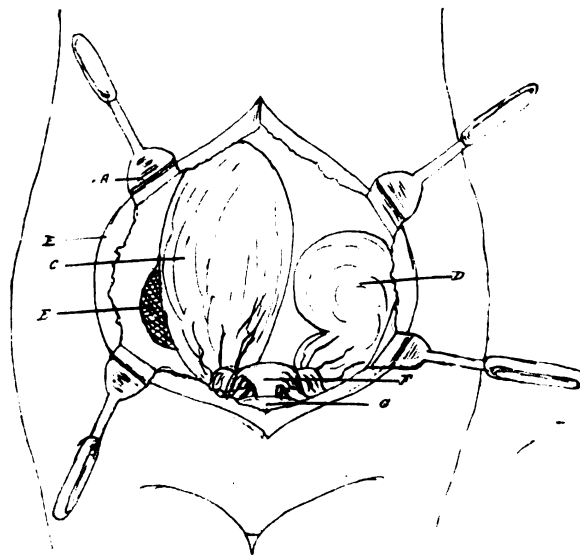
ROTATION of a dilated Fallopian tube on its pedicle is a very much rarer event than torsion of an ovarian cyst. We know very little as to the mechanism by which the twisting is produced, but it is probable in some cases that it is due to traction on the tumour by adherent intestine, the peristalsis of the bowel gradually giving rise to rotation. This is more likely to occur with small tumours, but with large swellings probably gravity is the chief agent. Mr. Woolcombe's case is very striking and well worthy of being put on record.

An unmarried woman, aged 22 years, was on Jan. 22nd, 1900, admitted into the South Devon and East Cornwall Hospital with the following history. Menstruation began at the age of 13 years, and was of the 28-day type; it had always been regular up to admission, but recently there had been decreased loss. Two years previously she had an attack of pain in the right lower abdomen, but never stayed in bed or gave up her work (dressmaking). There was

nausea but no vomiting. She had had many attacks since and once on the left side. The last attack occurred one week before admission, during which she was attended by Dr. C. R. Laurie of Redruth who sent her to Mr. Woolcombe. For the previous two or three months she had noticed an enlargement of the abdomen.

On admission a smooth, rounded, painless swelling occupied the right iliac region, extending well above the umbilicus with a sense of fluctuation, but no distinct thrill. On the left side there was a similar swelling of the size of half an orange just rising out of the pelvis. Rectal and vaginal examinations showed that these swellings bulged well into the pelvis, that on the left occupying the greater part of the cavity and neither being intimately connected with the uterus, the cavity of which measured two and a half inches and occupied a central position.

On Jan. 25th the abdomen was opened by a six-inch incision through the right rectus and the right-sided swelling was exposed and found to be completely covered by a sheet of adherent omentum which on being peeled off disclosed a large torpedo-shaped mass of a dark plum colour, with a smaller, darker and more solid mass, three inches long, on its deep aspect. This entire mass was adherent over its upper half to coils of small intestine which peeled off fairly easily, and allowed the mass to be delivered, when it was found to consist of the right tube and ovary with a pedicle which had one and a half complete twists from right to left. Occupying the left side of the pelvis and rising into the abdomen was a cystic swelling of yellowish-pink colour with a few adhesions to the sigmoid and pelvic floor and which on delivery was found to be a hugely



Double pyosalpinx with twisted pedicles. Diagrammatic. (After Kelly.) A, Level of highest point of iliac crest. B, Level of anterior superior iliac spine. C, Right hamo-pyosalpinx with one and a half twists of pedicle, dark blue in colour. D, Left pyosalpinx with complete double twist of pedicle, dark red in colour. E, Apoplectic right ovary. F, Uterus. G, Bladder.

dilated tube 11 inches in circumference with two complete twists of its pedicle from left to right, the pedicle being on the distal side of the ovary, so that on ligation and removal of the tube the ovary was left behind. After removal of both tumours the pelvis appeared as a large cavity with numerous oozing points from separated adhesions and a small uterus hanging loosely in it, its supporting ligaments being much stretched; a loop of round ligament (one and a half inches long) was therefore picked up and tied on each side, which slung the uterus into a fair position. The pelvis was filled with sterile saline solution to float up the intestines and the abdominal wound was closed with three tiers of sutures.

The patient made an uneventful recovery, the temperature only once reaching 100° F. and the wound being soundly healed when the sutures were removed on the sixteenth day. A vaginal examination before the patient's discharge at the end of the fourth week showed the uterus to be in a normal position, and freely moveable, and the lateral fornices to be

free from any inflammatory effusion or adherent intestine—a tribute to the efficacy of the saline solution in keeping the pelvis free from gut.

*Pathological report by Dr. F. D. BUSHNELL.*—The organs removed were the right ovary and the right and left Fallopian tubes. On examination the right tube was found to be dark bluish-red in colour; its peritoneal surface was smooth, but its lustre was diminished; there were remains of many adhesions. The bulbous portion roughly resembled a small Rugby football, being constricted at the lower pole, which was adapted to the pelvic cavity. The extreme length was eight inches and the circumference was 10½ inches. The whole tube was lengthened and tortuous and encroached on the mesosalpinx; the fimbriated end could not be distinguished. On section the tube was seen to contain a laminated layer of blood-clot half an inch deep, within which was a dark-red cheesy material, treacly in parts and without faecal. The wall of the tube was of the thickness of cartridge paper. The right ovary was very soft and deep red-blue in colour; it was three inches long and three inches broad and contained Graafian follicles and extravasated blood. The left tube was markedly bulbous and characteristically yellow with injected vessels on the surface. The peritoneal surface was slimy. The bulbous portion was seven and a half inches long and the maximum circumference was 11 inches. The walls were the same as in the right tube. The contents resembled cream cheese and were free from faecal. No abdominal opening could be demonstrated. A bacteriological examination was made, 12 cover-slides of cheesy material from either tube being prepared by Gram's and the methylene blue methods of staining. No diplococci were seen. No cultivations were made as the specimen was at once placed in formalin solution. For microscopic examination 12 sections from each tube were stained with logwood and eosin. In those from the bulbous parts either the epithelium and plicæ had disappeared or the columnar epithelium was replaced by leucocytes and cubical cells. The muscularis mucosæ and muscular wall were thinned and invaded by round cells. Sections from the less dilated parts showed swollen and luxuriant arborescent folds, glued together by exudation in places. No diplococci or macrophages were observed and no tubercles, chorionic villi, or signs of new growth were found. The specimen was one of double pyosalpinx with hæmorrhage into the right tube and ovary.

*Remarks by Mr. WOOLLCOMBE.*—There are several interesting points about the above case. 1. The continuance of regular menstruation in spite of the practical destruction of one ovary and both tubes. In this connexion it is interesting to note that on the side on which the ovary was intact there were one or two inches of unobliterated tube, which lends colour to the late Mr. Lawson Tait's contention that if this portion is left during oophorectomy menstruation is likely to continue. 2. Torsion of both pedicles. This is a rare event. I believe, as Hartman<sup>1</sup> could only find records of 15 cases of twisted inflamed tubes and these were apparently unilateral. In the present case the twist on both sides was from left to right anteriorly. 3. The tube with only one and a half complete twists of pedicle was apoplectic, whereas that in which two complete turns had taken place was not so; this is explained by the fact that in the former case the pedicle was on the uterine side of the ovary and therefore included the ovarian vessels, whereas in the latter instance the twist was on the distal side of the ovary. 4. I think that the filling of the pelvis with saline solution was of undoubted value in floating up the intestines during the most likely time for adhesions to form—the first few hours.

<sup>1</sup> Annales de Gynécologie et d'Obstétrique, February, 1900.

**ISOLATION OF INFECTIOUS DISEASE.**—At the meeting of the Yeovil Board of Guardians on Nov. 23rd one of the district medical officers reported that a pauper patient suffering from scarlet fever was refused admission to the Borough Hospital, the authorities contending that the guardians should provide isolation accommodation for pauper patients. Mr. Preston Thomas, of the Local Government Board, who was present at the meeting, said that the High Court had ruled that an out-door pauper or an inmate of a workhouse rated in a borough or sanitary district had the same right as any other resident in such borough or district to admission into the isolation hospital erected by the sanitary authority. The guardians decided to inform the borough authorities of this decision.

## Medical Societies.

### PATHOLOGICAL SOCIETY OF LONDON.

#### *Lymphadenoma in its relation to Tuberculosis.*

A MEETING of this society was held on Dec. 3rd, Mr. W. WATSON CHEYNE, the President, being in the chair.

Mr. H. T. BUTLIN, in opening the discussion on Lymphadenoma in its relation to Tuberculosis, said that the numerous terms which had been applied to cases had led to great confusion and had rendered the discussion which had taken place at the British Medical Association in the present year almost barren of results. A case which one surgeon would designate as "lymphoma" another would call "lymphosarcoma," and a third "lymphadenoma." Other authorities depended on the examination of the blood to decide whether a case was lymphadenoma. The classification of these cases of enlargement of glands was therefore most unsatisfactory. His conception of the disease was a patient with an enlarged gland or group of glands, usually soft, which after years might become adherent to the surrounding parts. In course of time the liver and spleen became enlarged and other glands about the body became affected. This he considered the "soft" form of the disease. He recognised a second form in which the glands were hard and bound down to the surrounding parts. The glands were homogeneous in structure and infiltrated into the surrounding parts, and secondary growths in the liver and spleen when present (if they might so be called) had the same appearance as the structure in the gland. This appearance was quite distinct from an inflamed gland and from a tuberculous gland. Professor J. Michell Clarke had before the British Medical Association given the usually accepted definition of lymphadenoma: "The term 'lymphadenoma' comprises those diseases which are characterised by overgrowth of lymphoid tissue or which give rise to growth closely resembling in structure that of lymphatic glands." Mr. Butlin said that there was no hypertrophy of lymphoid tissue, but that as definite a structure belonged to lymphadenoma as belonged to a growth such as epithelioma, and it was as easy to recognise the former as the latter under the microscope. He mentioned the case of a woman who was stated to be suffering from tuberculous glands in the neck. These were intensely hard; portions of the glands had been removed and were stated to be tuberculous. He had, however, examined and compared the specimens with a drawing of typical lymphadenoma in the Transactions of the Pathological Society of London, vol. xxix., and he found them to be almost identical. The same specimen had been examined by the late Professor Kanthack and he had at once expressed the opinion that it had the structure typical of lymphadenoma. During the past four years he (Mr. Butlin) had most carefully examined all cases which came under his observation, and he believed that he could now recognise lymphadenoma as a definite structure. With regard to the relation of lymphadenoma to tubercle, his view could be shortly expressed. Firstly, lymphadenoma was not tuberculous infection of a gland. Secondly, lymphadenoma did not exclude tubercle, nor did it render the patient immune to tuberculous infection, and he was not sure that it did not render the patient more susceptible to tuberculous infection.

Dr. F. W. ANDREWES confined his remarks to the histological, bacteriological, and experimental evidence as to the relation between lymphadenoma and tubercle. During the past three years he had personally examined more than 20 cases of real or supposed lymphadenoma. By the term "lymphadenoma" he meant a progressive enlargement of the lymphatic glands and of the lymphoid tissue of certain viscera, unattended by infiltration of adjacent tissues or by true metastasis and characterised by definite histological changes in the affected tissues. Distinctive blood-changes were absent. Its histological features were marked by the following characteristics. 1. A simplification of the gland structure, with abolition of any distinction between cortex and medulla, so that the gland tissue became homogeneous. 2. A large apparent decrease in the number of lymphocytes. 3. A hyperplasia of the supporting framework of the gland, both of the fibrillar reticulum and of the endothelial cells. The former might lead to fibrosis. The

increase in the endothelial cells was commonly striking and some of them were usually enlarged to form the well-known "lymphadenoma cells." These differed from the giant cells of tubercle in that they were smaller, more rounded, and contained fewer nuclei; the nuclei were also larger, fewer in number, and more deeply stained. 4. The eosinophil cells present in normal glands were often, though not always, increased in lymphadenoma. The essence of the glandular changes of lymphadenoma lay in the diffuse overgrowth of the stroma, with concomitant diminution in the contained lymphocytes. The changes in the glands were diffuse and not focal. The difference between the hard and soft forms of lymphadenoma was probably due to the fact that in the hard form the hyperplasia chiefly affected the fibrillar reticulum of the glands; in the soft form it affected chiefly the endothelial elements. Degenerative changes were uncommon in lymphadenomatous glands; it was possible that the caseous foci occasionally seen might be of secondary tuberculous nature. From a histological point of view tubercle might attack the lymphatic glands in at least three ways: there was an acute miliary form, a chronic caseating form, and a rarer type characterised by great endothelial proliferation, with little tendency to caseation. In comparing tubercle with lymphadenoma it must be remembered that in each the process was founded in an endothelial proliferation. Lymphadenoma, like tubercle, probably belonged to the infective granulomata rather than to the autonomous new growths. But in tubercle the early changes in the glands were essentially focal and not diffuse, though by fusion of the different foci the whole gland might finally be affected. The fibrosis was also focal, forming a capsule to the diseased areas, whereas in lymphadenoma it tended to be diffuse. The characteristic giant cells of tubercle probably never occurred in pure lymphadenoma. The eosinophil cells were commonly reduced or absent in tuberculous glands. The tubercle bacillus could usually be demonstrated in true tubercle. Dr. Andrewes had never succeeded in finding it in glands presenting the pure features of lymphadenoma. For these reasons he was of opinion that there were recognisable histological distinctions between the pure forms of the two diseases, but cases of mixed infection were not uncommon and in these the two sets of lesions were interwoven. The confusion to which such cases gave rise had perhaps been made worse by animal experiment. The discovery of tubercle bacilli or the results of inoculation might prove a given gland to be tuberculous, but they did not exclude the possibility of its being also lymphadenomatous. This fallacy underlay much of the reasoning of those who claimed that lymphadenoma was tubercle. There was no evidence of antagonism between the two conditions; it was possible that lymphadenomatous glands were a favourable soil for the growth of tubercle bacilli and were as liable to invasion as normal glands while probably less resistant. Were lymphadenoma truly tuberculous there should be some uniformity in the results of animal inoculation, but this was not the case. Of five cases in which Dr. Andrewes had employed animal inoculation three were opposed to the belief that lymphadenoma was of tuberculous nature. One was a case of acute fatal lymphadenoma in a boy, seven years of age, running its course in four and a half months. (Specimens and microscopical sections were shown.) Inoculation of a gland failed to produce tuberculosis in a guinea-pig. Another was a case of lymphadenoma in which most of the glands had undergone hyaline degeneration. One of the bronchial glands was, however, caseous, and this gland produced tuberculosis in a guinea-pig. Another animal inoculated at the same time with an abdominal lymphatic gland was not rendered tuberculous. In a third case of lymphadenoma of the cervical, mediastinal, and axillary glands, with characteristic histological lesions, inoculation of an axillary gland failed to produce tuberculosis, yet a section of one of the cervical glands was shown containing a small tubercle in which bacilli were present. The last two cases were probably examples of lymphadenoma in which a localised tuberculous infection had been accidentally engrafted; nevertheless, there was a progressive glandular enlargement, truly tuberculous, which closely simulated lymphadenoma, even on the post-mortem table. Dr. Andrewes related a case which during life was diagnosed as lymphadenoma and in which the necropsy appeared to confirm the diagnosis, as no indication of tubercle was recognisable to the naked eye. Yet a guinea-pig inoculated from one of the glands became

tuberculous, and tubercles were found in the lymphatic glands, spleen, and liver, in which tubercle bacilli were demonstrable. There were, however, in this case some grounds for believing that the generalised tuberculosis had been engrafted on a lymphadenomatous basis. He mentioned also other cases in which the lesions of lymphadenoma and tubercle were apparently mixed. The conclusions to which his observations had led were formulated as follows. 1. Lymphadenoma was a distinct and separable disease, histologically recognisable, and not due to the action of the tubercle bacillus. 2. There existed a form of tuberculosis of the lymphatic glands clinically indistinguishable from lymphadenoma but recognisable histologically and bacteriologically. 3. Secondary infection with tubercle was not rare in lymphadenoma. Such infection might be local and trivial, or it might gain the upper hand, the patient dying from generalised tuberculosis with a puzzling mixture of lesions, whence had arisen the erroneous belief that lymphadenoma was only a form of tubercle.

Dr. W. LEE DICKINSON described a case of generalised lymphadenoma in which the question of tuberculosis had been raised when the living patient was shown at the Clinical Society of London last April. At the necropsy the naked-eye and microscopical appearances were characteristic of lymphadenoma in the glands, which were widely affected, and in deposits of growth which were found in the spleen, skin, dura mater, periosteum, and medulla of bones. Nothing like tubercle in its ordinary form was found anywhere except in the liver, and there only in a very limited area. The liver was lardaceous—a point of interest because at one time there existed an idea of a relationship between lardaceous disease and lymphadenoma. Probably the lardaceous condition of the liver was due to the extreme cachexia that was reached before death. The spleen and many of the glands were stained for tubercle bacilli with a negative result. In view, however, of the possibility that tubercle bacilli might be present, though not discoverable by the microscope, it was to be regretted that inoculation experiments upon guinea-pigs were not undertaken. Cultures from the fresh pulp of the spleen and glands yielded growths of streptococci, a result which had been obtained before. Upon the whole the disease seemed to have been lymphadenoma as distinct from tuberculosis, and the limited tuberculosis of the liver might be regarded as a secondary infection. Reference was also made to the case of a woman, aged 24 years, in which, so far as the glands were concerned, the disease was lymphadenoma. The spleen was greatly enlarged and studded with growths which Professor Delépine found to be tuberculous; and recent tubercle existed in the lungs. This case seemed to have been a good example of the supervention of tubercle upon lymphadenoma.

Professor MACFADYEAN said that he should not regard a case as one of lymphadenoma unless there was general enlargement of the lymphatic glands, without caseation and without leucocytosis. He had never met with a case of lymphadenoma in animals, but he mentioned one horse which he had seen with bilateral enlargement of the glands in which he had not suspected the disease. He had not been able to verify this observation. Cases of lymphadenoma had been described in animals, but he doubted if any genuine case had ever been met with. Growths occurred in the spleen of the horse which certainly were not tuberculous, but neither had they the structure which had been shown in the specimen of lymphadenoma exhibited that evening by Dr. Andrewes. With regard to the differential diagnosis, he said that in the cases of tuberculosis the disease limited itself to certain groups of glands, the pharyngeal, the glands at the root of the lung and the mesenteric being most commonly affected, while in lymphadenoma the axillary glands and those in the lower part of the neck were most usually affected.

Dr. G. NEWTON PITT doubted if it was possible definitely to assert whether a gland was tuberculous or lymphadenomatous. Out of 7000 necropsies there had been 18 cases of supposed lymphadenoma; three of these were found to be tuberculous on pathological examination, although clinically they were cases of lymphadenoma. In three other cases caseation was present, but he considered that these were cases of lymphadenoma in which there was the added infection by tubercle. He suggested that tuberculin should be used as a diagnostic agent in order to prove the character of the glandular enlargement. It had been suggested that lymphadenoma was a para-tuberculous process just as tabes

was a para-syphilitic process, but he did not think that this could be, and he quoted the case of a boy who died from lymphadenoma of the gland, spleen, and liver 19 days after the first symptoms of illness and no trace of tubercle was found in the patient. He alluded to another case of rapid infection and death.

## \* LIVERPOOL MEDICAL INSTITUTION.

*Exhibition of Cases.—Heroin Hydrochlorate.—Empyema and Ascites associated with Cirrhosis of the Liver.—Gall-stones emitted by Vomiting.—Primary Hydatid Cyst.—Pneumothorax.—Suture of the Fractured Patella.*

THE third ordinary meeting of this society was held on Nov. 21st, Mr. EDGAR A. BROWNE, the President, being in the chair.

The following cases were shown in the library:—

Mr. C. G. LEE: A patient showing a typical example of Persistent Hyaloid Artery.

Dr. J. E. ANDERSON: A case of Molluscum Fibrosum.

Dr. J. M. HUNT: A case of Hysterical Aphonia with Inspiratory Stridor.

Dr. W. MACFIE CAMPBELL said that he had been in the habit of using heroin hydrochlorate frequently in doses of one-sixth grain, but recently he had had an alarming experience with a one-twelfth-grain dose. The patient, a woman, who was given a dose (one-twelfth of a grain) at 9 P.M., was very restless during the night and had a second dose at 7.30 A.M., soon after which he found her livid, with shortness of breath, oppressed pulse, contracted pupils, and a sense of impending death. Strong coffee was administered and she was all right at night. It was noticeable that in the new edition of Extra-pharmacopœia the dose was from one-twenty-fifth to one-twelfth of a grain, and caution in its use was necessary. It was most useful in laryngeal cough.

Dr. A. C. RENDLE read notes of a case of Empyema and Ascites associated with Cirrhosis of the Liver. The patient, a man, 33 years of age, and with a history of being a heavy drinker, when seen in January, 1900, was complaining of acute pain over the liver which was tender and was felt two inches below the costal margin. There was jaundice and the urine was loaded with lithates. Treated with salicylate of soda the symptoms subsided in a week. Six weeks later he had a second attack and soon afterwards developed a lobar pleuro-pneumonia, the temperature reaching 105° F., accompanied by active delirium and defervescence by lysis, the temperature being normal on the twelfth day. Ten days later there was well-marked right-sided empyema which was treated by resection of the rib and evacuation of pus. Five days later fluid was collecting in the peritoneum, and subsequently the patient was tapped three times at intervals of one and two weeks, the amount of fluid at each tapping being from two and a half to three gallons. The nature of the obstruction in the liver was probably twofold—alcoholic and syphilitic. The recovery was uninterrupted after the last tapping and the patient had been at his work for the last 12 months.—Dr. W. CARTER had seen a dozen cases of ascites recover, and he related the case of a woman who had been tapped regularly many times at intervals of three weeks. An attack of pleurisy led to the application of a 10 per cent. preparation of oleate of mercury in oleic acid, which by mistake was applied all over the abdomen, resulting in an acute erythema, and prolonging the interval of tapping to six weeks, after which the patient recovered. She remained well at the present time (four years later). If after tapping the urine increased in quantity there was a better prognosis; if, on the other hand, the quantity of urine diminished it was quite certain that there would be no improvement.

Sir WILLIAM MITCHELL BANKS showed a lad, aged 16 years, who had been accidentally shot with a pea-rifle which went off a distance of two feet from the patient's face, the bullet entering the skull just at the root of the nose, slightly to the right of the middle line. Insensibility followed which lasted a week. On recovery there were complete paralysis of the left arm and leg and partial paralysis in the face. Six weeks later the face had recovered and power had partially returned to the arm and leg. The patient could close the fingers with a good strong grasp but he could not open them again except with the help of the other hand. An x-ray photograph showed the bullet in the cerebrum about one and a half inches in front of the skull and about one inch to the right

of the middle. Small black specks at the point of entrance of the bullet into the skull in front showed where fragments of lead had been knocked off its surface; it had thus traversed the whole cerebrum from front to back. Professor C. S. Sherrington was of opinion that it had damaged the internal white capsule. He thought that it could hardly have gone through it or the results would have been more permanent, but it had probably bruised it in some way. The suggestion was made that a blood-vessel might have been divided and a considerable clot have formed and produced pressure on the capsule. The boy's sight was perfect and no symptoms existed to show that the bullet was producing any disturbance whatever.

Mr. J. S. KELLETT SMITH and Mr. FRANCIS W. BAILEY reported a case in which a Small Gall-stone was Vomited. The patient was an old woman, aged 60 years, who had had three previous attacks of biliary colic—paroxysmal recurring pain, extreme tenderness over the liver region, incessant vomiting, eructations, hiccough, and deep jaundice. At no time was the gall-bladder enlarged and in none of the attacks was any gall-stone found in the feces, nor was anything discovered at all suggestive of a membranous cholecystitis. In January, 1900, she had another attack of colic and shortly after its onset vomited a small gall-stone. The symptoms subsided almost as suddenly as they had commenced and the patient had been well ever since. The vomited stone was a small light brown stone, regularly pyramidal in shape, and it weighed five grains.—Mr. BAILEY corroborated Mr. Kellett Smith's history of the case and pointed out the rarity of the condition, comparing it with the records of cases of passage of the stone per rectum and through an abdominal sinus. The stone probably passed via the duct into the duodenum and thence by a retro-peristaltic wave into the stomach.

Dr. W. CROOKE also reported a case of Vomited Gall-stone. A woman, aged 40 years, had an attack of biliary colic and developed acute intestinal obstruction probably in the duodenum. She vomited a small gall-stone weighing 13 grains and two days later the obstruction gave way and she afterwards passed a large gall-stone weighing 198 grains; seven other stones were subsequently passed. The gall-stone probably ulcerated from the gall-bladder into the duodenum. There was never any jaundice.—Mr. F. T. PAUL said that it was rare for gall-stones to be vomited. He had met with cases in which gall-stones were discharged through an abscess opening on the surface, also where they had ulcerated into the duodenum, and in many cases he had found adhesions between the gall-bladder and the stomach, the duodenum, and the colon. He agreed that in the present cases the stones passed into the stomach through the pylorus, and as regards the size of the latter orifice measurements were not to be taken as having much bearing upon the point in view of the fact that tooth-plates, large knives, &c., frequently passed the valve with apparent ease.

Dr. R. J. M. BUCHANAN read notes of a case of Primary Hydatid Cyst in the Right Lung. The patient was an Australian and had suffered from the condition for a long time. The contents of the cyst were expectorated during paroxysms of coughing. Radiographs of the thorax taken by Dr. C. T. Holland showed the cyst in position and it was easily recognised on examination with the fluorescent screens.

Dr. BUCHANAN also read notes of a case of Pneumothorax occurring during Muscular Strain in a healthy male. The lesion was in the left lung. No effusion of serous fluid took place and the condition gave rise to but slight inconvenience to the patient. Fixation of the chest with strapping and absolute rest for three weeks resulted in complete absorption of the air and expansion of the lung. Radiographs of the thorax taken by Dr. Holland were exhibited and showed the collapsed lung well defined and surrounded by a clear area. With the fluorescent screen the condition was easily recognisable.

Dr. BOUVIERE F. P. McDONALD read a note on Suture of the Fractured Patella, with special reference to Early Movement of the Knee-joint. He referred to the numerous methods devised for the treatment of the transverse fracture of the patella. Good results undoubtedly followed the employment of simple retentive apparatus in many cases; functional usefulness sufficient for the well-to-do patient and even bony union were reported to have taken place, but in a large proportion of cases the limb was permanently weakened, and cases were reported of gangrene resulting from the bandaging and amputation and even death from the use of hooks and

pins. He pointed out as an important factor in the prevention of coaptation the effusion of blood separating the fractured surfaces coagulating and forming a solid bar to any apposition by ordinary mechanical means. With antiseptic and aseptic precautions they could now with comparative safety open the knee-joint, remove blood-clot, and overcome muscular contraction by the wire suture and thus obtain bony union, resulting in a strong and useful limb. Suitable cases only should be selected for operation—i.e., individuals not beyond the prime of life and of healthy physique. Reference was made to the length of time (from three to four months) usually taken for the treatment of such a fracture, as against five weeks for the open method, and the more certain result of bony union was more favourable to patients of the working-class, who could not afford a long and tedious confinement and for whom it was important that the limb should be strong and perfect. Great importance was attached to passive movement, which should begin at the end of the first week. A successful case was reported and a radiograph was shown.—Mr. RUSHTON PARKER, while allowing all that could be claimed in favour of primary wiring, especially in selected cases of persons following laborious or active employment, feared that it was not widely known what excellent results, with strong and freely moveable knees, could be obtained by putting up the limb rigidly straight from the first and continuing the treatment for four or six months. The best apparatus was Thomas's calliper knee splints, with which cases of fractured patella might be treated with confinement to bed for a few days, or even not at all. He believed the chief cause of separation of the fragments to be flexion of the knee, and that therefore the most important item in mechanical treatment was the prevention of a single flexion of the joint until the union was strong enough to bear the usual strain. Bony union, though rarely thus occurring, was not important or essential in cases to which this method was applicable. He had no belief in the necessity or utility of passive movement in the cases submitted to wiring.—Mr. PAUL said that some years ago he sutured by Mr. Barker's or an allied method all the cases under his care, and although there were no failures the results were not such as to warrant operative treatment. Hence he had returned to the use of Thomas's splint and the method of fixing the fragments employed with it. This method was certainly long, but he was not aware of a single patient who had complained of the subsequent condition of the limb. This point was explained by the fact that an allied injury—rupture of the ligamentum patellæ—if treated without suture gave a most unfortunate result which could not pass without notice. It was essential to suture the ligament when ruptured.—Mr. ROBERT JONES thought that wiring should be reserved for the exceptional case and not be adopted as a routine. By efficient mechanical methods excellent results could be obtained without any risk and the patient allowed, after the first few days, liberty to walk about. He had met with many cases where trouble had been aroused by wire after active treatment had been discontinued. He had met with many patients with fibrous union doing hard work at the docks.—Dr. BUCHANAN mentioned that in reference to fractured patella the operation of wiring the fragments would probably interfere with the acceptance of an application for life assurance.—Mr. GEORGE G. HAMILTON thought that there was no great necessity for wiring the patella. He had seen the wire give trouble many months after the wound was completely healed. With as much as three inches of fibrous union the limb was not necessarily a useless one.—Dr. W. BLAIR BELL agreed with the treatment by wiring and passive movement, and referred to a case which he had wired which had given way a second time after treatment for six months on splints. Mr. W. THELWALL THOMAS thought that the subject of wiring of a fractured patella had been confused by the so-called subcutaneous methods which aimed at bringing the fragments together, irrespectively of what might lie between them. He practised wiring the fragments after open incision and the best time for approximating fractured surfaces in all bones was immediately after making the diagnosis.—Dr. MACDONALD replied.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Nov. 19th, Dr. R. Honeyburne being in the chair.—Dr. R. H. Crowley showed the following specimens: (1) Rupture of an Aortic Aneurysm

into the Oesophagus; (2) a Blood Cast of the Stomach from the same patient; (3) an Aneurysm of the First Part of the Aortic Arch from a woman, aged 23 years; (4) a Pharyngeal New Growth; (5) an unusual form of Ulcerative Endocarditis of the Mitral Valve; and (6) a Mediastinal New Growth causing obliteration of the superior vena cava.—Dr. A. Bronner showed an apparatus for Massage of the Drum and Ossicles.—Dr. A. C. F. Rabagliati read notes on a case of Submucous Uterine Myoma removed by Hysterotomy. The patient was an unmarried woman, aged 35 years, who was first seen on account of retention of urine. Difficulty in emptying the bladder had occurred at intervals for the last four months. The patient had menorrhagia to some extent. Pelvic examination showed that there was a round smooth tumour projecting from the os uteri, which latter was very patent, admitting the finger easily. On Sept. 15th, 1901, with the patient under ether and in the lithotomy position, an attempt was made to remove the swelling by the vaginal route by separating it from the uterus with the fingers and blunt instruments, the cervix having been divided to give more room. It was not found practicable to get it away by these means. The patient was then put into the supine position and the abdomen was opened. The tumour was seen to have distended the uterine cavity, the latter organ retaining its shape and appearing to be simply enlarged. It was decided to open the uterus and to attempt to remove the tumour without removing the uterus itself. A clamp was put on each broad ligament to prevent bleeding, and an incision was made in the anterior uterine wall, high up towards the fundus, and was carried through the fundus to the posterior wall. The attachments of the tumour were torn through and it was removed. The wound in the uterus was closed with catgut sutures which included the serous and muscular coats, but left out the mucous membrane. There was no hæmorrhage and no vessels required ligature. The patient made a rapid and uneventful recovery. The tumour was a fibro-myoma measuring five inches by four inches.—Dr. James Metcalfe read a paper entitled "A Plea for Care in the Diagnosis of Pregnancy." He drew attention to the fact that although the majority of cases seen did not exhibit any superlative obstacle to a correct diagnosis of the condition, some cases occurred at intervals in the practice of most of them that taxed all their knowledge and powers of diagnosis. Repeated careful examination with due regard to all the known signs of pregnancy would usually preclude error. Dr. Metcalfe related several cases in which the diagnosis of early pregnancy had only been established after very careful watching and examination; and, on the other hand, cases occurred in which patients had been informed that they were pregnant and nearly at the full term when they were not pregnant at all. In these latter cases the medical attendant might be misled by the presence of some of the symptoms of pregnancy e.g., amenorrhœa and some enlargement of the breasts and if a careful physical examination were not made, but the patients' statements were relied upon, error was likely to follow.—Dr. D. Goyder read notes on a case of Asthma and its Treatment. The patient was a boy, 14 years of age, who had for many years been subject to attacks of bronchitis. He was seized on Sept. 29th, 1901, with sudden and extreme difficulty of breathing. The dyspnoea was very great and the patient from time to time gave a sharp scream. There was a slight cough, but no expectoration. The temperature was 101° F., the pulse was 130, and the respirations were 24. A mixture was given containing antimony, sodium nitrite, chloroform, and an alkali, and heat was ordered to be applied to the chest and extremities. No relief being obtained after several hours nitro-glycerine was given, one tablet every two hours. Next day the condition was much the same except that there was now some muco-purulent expectoration. It was now determined to give oxygen gas and until this could be obtained five-grain doses of iodide of potassium were added to each dose of medicine. The effect of this was very marked, as in a quarter of an hour after the first dose the spasm began to relax and the face regained its natural colour and expectoration became free. In spite of the improvement the oxygen gas was used at intervals of two hours for two days. The patient regained his normal condition of health in about 10 days. After the spasm was relieved the temperature rose to 104°. The previous bronchitic attacks to which this patient had been subject had always come on after a period of barometric depression, and

this was so previously to the asthmatic attack. It was noteworthy in this case that nitrite of soda and nitro-glycerine completely failed to relieve the spasm, while iodide of potassium gave almost instant relief, the nitrites acting on the walls of the blood-vessels rather than the air tubes.—Mr. Phillip E. Miall read notes on a case of Fracture of a Rib through Cough. The patient, a woman, aged 56 years, stout, and subject to chronic diarrhoea, had been laid up for several weeks with bronchial asthma. During a paroxysm of coughing she felt something give way and experienced a grating sensation when the cough returned. The eleventh rib on the right side was found to be fractured not far from the spine. A tight bandage aggravated the cough and there was some difficulty in keeping the part at rest. Grating was still present 18 days after the fracture occurred and there was some pain felt for five weeks. Mr. Miall referred to two other cases of fracture of the rib by muscular action which he had published and to cases by other writers. He pointed out the importance of the subject in view of the frequency of fractured ribs among the insane and where the suggestion of violence by attendants might be raised.

**SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.**—A meeting of this society was held on Nov. 21st, Dr. C. H. Willey, the President, being in the chair.—Dr. C. N. Gwynne showed a case of Double Congenital Dislocation of the Hip in which he had tried bloodless reposition of the head of the femur, as recommended by Lorenz.—Dr. G. Carter narrated two cases of Labour occurring during the course of Acute Croupous Pneumonia. He considered that labour occurring early during the course of pneumonia in a healthy subject, while the powers were still good, was not probably a very dangerous complication, but when it occurred late in the disease it was of grave omen.—Mr. R. Favell related the following cases and showed specimens: (1) Removal of Unruptured Tubal Gestation of one side with Hydrosalpinx of the other side; and (2) Dermoid Tumour of the Ovary removed by Vaginal Celiotomy.—Dr. A. L. Husband read notes of a case of Hydatidiform Degeneration of the Chorion, of which the most noteworthy features were the occurrence of severe vomiting rather than hæmorrhage as the chief symptom, and the early period at which evacuation took place—viz., at the tenth week.—Mr. S. Snell introduced the following patients:—1. A young woman from whom an Encapsulated Tumour (Endothelioma) had been removed from the Orbit. The growth reached to the back of the orbit, along the lower floor, and was loosely connected with the eyeball and optic nerve. The globe was preserved and vision was normal. 2. A woman from whom a Sarcoma had been removed from the Lower Wall of the Orbit. 3. A man who had been injured by a burn from a piece of hot steel. Four rectifying operations had been performed: (a) for ectropion of the lower lid; (b) for obliteration of the canaliculus (epiphora); (c) for extensive symblepharon; and (d) for ingrowing eyelashes of the upper eyelid.—Mr. S. Snell also showed a large clear Cyst (of the size of a pigeon's egg) removed from the upper and inner angle of the orbit. The patient was a young man, aged 19 years, and the cyst had existed for many years, but had increased in size, especially recently.—Mr. Snell related a case of Headache relieved by Correction of Refraction Error and remarked upon the effect of cycling in some instances. The patient was a missionary, aged 32 years. The headaches were severe, affecting chiefly the left side, the upper part and back of the head. They commenced in February, 1899. A medical man declared that the eyes were normal and ordered six months' change of scene, &c., with less work. The patient returned to work, somewhat improved, in the autumn. He managed, though suffering at times considerably, to run on until February of this year, when he completely broke down and was invalided to England. The medical board ordered six months' rest. At the expiration of this time he was still unfit for work and he was recommended to consult an oculist. He accordingly saw Mr. Snell in October last. Vision =  $\frac{2}{3}$  in each eye; after homatropine and cocaine vision =  $\frac{4}{5}$  or + 5 D. cyl., axis horizontal, vision =  $\frac{4}{5}$  in each eye. Muscle balance was normal. Cylinders were ordered for general use. Relief was speedy and complete. After three weeks he desired to return to work and has recently taken up the duties of a curacy. Mr. Snell remarked on the frequency with which headaches depended on conditions of the eye and that knowledge of this relationship was becoming more widely recognised. The instance related was a good illustration of the relief following the correction

of error of refraction. The defect was of low degree, as was often the case, but the axis of the astigmatism was contrary to the rule. The muscle balance ought always to be tested. Another point in this case was the increased headache and discomfort which sometimes followed cycling. Mr. Snell alluded to this as occasioned, in this and other instances he had met with, by the rider stooping over the handle-bars and thereby necessitating when looking forwards the gaze being directed above the horizontal line, thus inducing weariness of the elevator muscles.

**GLASGOW SOUTHERN MEDICAL SOCIETY.**—A meeting of this society was held on Nov. 28th, Dr. John Stewart, the President, being in the chair.—Dr. James Hinshelwood gave an address on Further Observations on Congenital Word-blindness. In introducing the subject of word-blindness the speaker referred to the comparative frequency of the disease, he himself having seen quite a number of cases during the last few months. He thought that they were too apt to think of the eye itself when dealing with the powers of vision in any given case. In order to comprehend the full extent of the visual act they must think also of the relationship of the work of the cerebrum. As an illustration of this close relationship of the eye and the brain he mentioned the result of the operation for congenital cataract. After removal of the cataract the patient, while able to perceive, was for a time unable to recognise, the visual memory not having been developed. In connexion with each special sense there was a memory which developed unconsciously and enabled them to remember past impressions. In some persons these memories were very highly developed and an instance was given of an acute visual memory in which a painter after only once having seen the person could produce a good portrait. In some brain diseases, on the other hand, the patient while able to see with his eyes could not recognise his own relatives. With regard to the anatomical connexion of the auditory, speech, and visual centres in the brain Dr. Hinshelwood showed by means of diagrams that they received their blood-supply from the same artery. A thrombosis might affect one branch of the artery, and should that branch supply the brain area connected with the visual memory for words there would be produced a state of word-blindness, though the eye structures would be found on examination to be quite normal. From a prolonged study of the subject he had come to the conclusion that there were memory centres in the brain for words, figures, and letters; that in man these centres were acquired; that they were present on one side of the brain only; and that they consisted of groups of specially developed cells. On what other theory, he remarked, could be explained those cases in which the memory for words alone was blotted out or where the scholar conversant with many languages became word-deaf to his mother tongue alone? After some remarks on the prognosis of word-blindness he referred to treatment and recommended re-education of the patient in the hope that a corresponding area on the other side of the brain might develop and take up the work. Speaking particularly of congenital word-blindness Dr. Hinshelwood read the notes of two cases seen lately. Both children were very intelligent, could spell, count, and repeat passages by heart, but had great difficulty in learning to read. In the attempt to read both children would repeat aloud the letters of the word, thus making use of their auditory memory centre, which was quite intact. In explaining the causation he thought that there was defective development in the cells of the brain area concerned with the visual memory for words and letters. In conclusion he dwelt on the importance of having these slight brain defects of children recognised and attended to and advocated special classes for backward children.—The address gave rise to some discussion and at the close, on the motion of Dr. John Fraser Orr, Dr. Hinshelwood received the thanks of the society.

**ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.**—The annual meeting of this society was held on Nov. 29th.—Professor G. B. Howes, the honorary treasurer, in submitting a statement of accounts referred to the healthy financial condition of the society.—The following were elected as officers for the ensuing year: President: Mr. C. B. Lockwood. Vice-Presidents: Mr. R. Clement Lucas, Dr. Arthur Thomson, and Dr. A. M. Paterson. Treasurer: Mr. G. B. Howes. Secretaries: Dr. Peter Thompson (England), Dr. T. H. Bryce (Scotland), and Dr. C. J. Patten (Ireland). Council: Dr. C. Addison, Dr. R. J.

Berry, Dr. A. Birmingham, Dr. J. Black, Dr. D. J. Cunningham, Dr. A. F. Dixon, Dr. E. Fawcett, Dr. W. H. Gaskell, Dr. Robert Howden, Dr. A. Keith, Dr. A. Macalister, Dr. J. Musgrove, Mr. F. G. Parsons, Dr. W. G. Ridewood, Dr. Arthur Robinson, Dr. Barclay Smith, Dr. J. Symington, Mr. G. D. Thane, Dr. A. H. Young, and Dr. B. C. A. Windle. — After Mr. C. B. Lockwood had taken the presidential chair the thanks of the society were given to the outgoing President, Dr. A. H. Young, and to the outgoing secretary for England, Dr. Arthur Keith, for their invaluable services. — The following communications were brought before the society: — Dr. Walter Kidd: Diagrams illustrating the Arrangement of the Hair on the Frontal Region of Man. — Dr. F. H. Thiele (introduced by Mr. G. D. Thane): A Heart showing Transposition of the Aorta and Pulmonary Artery, with complete separation of the Right and Left Ventracles. — Mr. F. W. Jones showed (for Dr. Finlayson) a specimen of Complete Absence of the Left Lung in a Child. — Dr. Hugh Rigby: A curious form of Diaphragmatic Hernia. — Dr. A. Keith and Mr. F. W. Jones: Specimens illustrating the Development of the Cardiac End of the Human Stomach. — Dr. R. J. Gladstone showed some Cephalo-metric Instruments, including (1) an improved form of callipers designed by Mr. J. Gray; (2) an instrument for measuring the distance between the bi-auricular line and bregma; and (3) a machine for drawing the contour of the head.

**CLINICAL SOCIETY OF MANCHESTER.**—A meeting of this society was held on Nov. 19th, Dr. Herbert Lund being in the chair. — Dr. Eugene S. Yonge described Ash's Operation for Deflected Nasal Septum and minutely demonstrated the technique of the operation and the instruments used in its performance. He showed some patients upon whom he had operated with very satisfactory results. — Dr. W. Milligan gave a short demonstration upon the Treatment of Chronic Suppurative Mastoiditis, with special reference to the employment of epithelial grafts as a means of healing the cavity in the bone left by the operation. The demonstration was illustrated by a number of lantern slides, a number of the slides having been lent by Mr. C. A. Ballance. The technique of the operation for removing disease in the bone was fully described and slides were shown to illustrate various points in the anatomy of the mastoid area. The method of grafting, as suggested by Mr. Ballance, was fully dealt with, the various steps of the operative technique being shown upon the screen. Certain of the instruments necessary in the performance of the grafting operation were also shown and reference was made to the electric motor which Dr. Milligan in conjunction with Mr. Ballance had invented. Special stress was laid upon the necessity of clearing out all disease and the difficulties which were encountered in doing so. The method of cutting grafts was also demonstrated and the lining of the cavity with gold leaf was fully illustrated. The results of the operation as a whole were then considered and it was shown how the period of after-treatment was distinctly diminished by the employment of epithelial grafts. Two patients upon whom the operation had been performed were shown to the meeting; and the favourable results to their hearing power were pointed out.

**DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.**—A meeting of this society was held on Nov. 27th, Dr. A. J. Harrison, the President, being in the chair. — The following cases were shown: — Dr. J. H. Stowers: (1) Two cases of Papulo-Squamous Syphilis; (2) Recurrent Psoriasis; (3) a Disorder of the Nails; and (4) Lichen Planus. — Mr. H. Betham Robinson: A case of a Circular Sore with hardened edges involving the inner part of the left eyebrow, with glandular enlargement in the neck. Six months ago the patient had an induration of the frænum which was succeeded by a papular eruption. — In the discussion which followed the question was raised whether the sore was of the nature of an early occurring gumma or of some septic origin in a much debilitated syphilitic subject. — Dr. J. M. H. MacLeod: Chancre of the Lip in a Child, six years of age. — Dr. A. Eddowes: A case of Chancre of the Lip. — Mr. A. Shillitoe: (1) A case of (?) Hypertrophic Scar Tissue (?) Keloid in a man who had previously suffered from severe rupia; and (2) an obstinate case of Psoriasis which had yielded rapidly to copaiba. — Dr. E. Graham Little: (1) A case of Tertiary Syphilis of the Cheek; and (2) a Drawing of a case

of Acanthosis Nigricans. — Dr. E. Stainer: (1) A case of Congenital Linear Papilloma in a child, 17 months old; and (2) Illustration by Diagrams of the Hereditary Transmission of Ichthyosis in two families. — Dr. Wilfrid B. Warde (for Dr. P. Abraham): A case of Bazin's Disease of the Leg. — Dr. A. J. Grant (for Dr. P. Abraham): (1) A Warty Condition of the Lip; and (2) Paraffin Eruption of the Leg.

## Reviews and Notices of Books.

*Alcoholism: a Study in Heredity.* By G. ARCHDALL REID, M.B., C.M., F.R.S. Edin. London: T. Fisher Unwin. 1901. 8vo, pp. 293. Price 6s. net.

SOME years ago<sup>1</sup> we reviewed a book by Dr. Archdall Reid in which he broached the subject of alcohol as a selective agent in the evolution of man. The present volume is an expansion of this theme. In it the author gives a description of certain laws of biology by which alone, he maintains, the phenomenon of national drunkenness can be satisfactorily explained and in obedience to which lies the only hope of reform.

Put shortly, Dr. Reid's argument is as follows. The action of alcohol on the race, he believes, is closely analogous to that of the zymotic diseases. In order to survive in the struggle for existence a nation must acquire a certain power of resisting pathogenic organisms, for they are too widely distributed to be avoided. It can only gain this power by suffering from the diseases till the requisite degree of immunity has been developed; this can never be gained by avoiding them. The nation which has not developed it is liable at any moment, as the means of communication improve, to share the fate of certain savage tribes and to be crippled, or even exterminated, by imported microbes. A study of the history of drunkenness, says the author, shows that the temperate nations, such as the Greeks and the Italians, are those which have passed through a period of drunkenness and have acquired a certain degree of immunity. The most intemperate are native tribes to whom alcohol has only recently been introduced. Between these two come nations such as ours, which are still in their drunkenness stage. The genesis of inebriety in an individual depends upon three factors, one inborn—a capacity for enjoying indulgence in alcohol—and two acquired, firstly a personal experience of the sensations produced by alcohol, and secondly the increased delight in drink which continued indulgence confers. Speaking generally, men indulge in alcohol, or tobacco, or anything else, in proportion to their desire for it. Therefore the people who have the capacity for enjoying drunkenness drink to excess. Those who have not this capacity remain sober, whether they are teetotalers or not. The temperate nations are sober in countries where alcohol is cheap, not because of restrictive legislation but because they have lost the wish to get drunk; or, to speak more accurately, the drunkards, unfitted by their vice to survive in the struggle for existence, have been eliminated, leaving the nation composed of persons who have not the inborn capacity for delighting in alcoholic excess. How this capacity was originally acquired is not known, but having once inherited it an individual cannot get rid of it nor can he avoid transmitting it to his children who in their turn will hand it on, in undiminished strength the author assumes, to his grandchildren, so that in a few generations the predisposition to alcohol of a large section of the community would, through reversion, "gather head till, like an obstructed mountain stream, it burst all barriers, when the last state of the race would be worse than the first."

<sup>1</sup> THE LANCET, June 13th, 1896, p. 1847.

It will be observed that where the author and the "temperance reformers of the dominant school" part company is in their estimate of the relative importance in the genesis of sobriety of the inborn and of the acquired characteristics. The latter have confined their attention to the acquired, the former practically ignores all but the inborn. The two positions are as far apart as the poles and if Dr. Reid is in the right all attempts to hinder those who wish to get drunk from doing so must work the nation incalculable harm, for as the author says plaintively, "Did we abolish drink we could not discover the drunkard," and if he is not discovered how can he be eliminated? The only way in which the devastating career of this particular inborn characteristic can be stayed is by a process of selection, natural or artificial. The former involves an immense amount of misery which may be avoided by adopting the latter. The remedy suggested is to prevent drunkards from having children by the threat of "say, a month's imprisonment."

The author's theory is ingenious and ably advanced and yet it leaves us unconvinced. One objection in the way of our accepting it is the sobriety of Mahomedans. Dr. Reid thinks that they have not been long enough under observation yet for us to know what effect their temperateness may be having upon them, but 1000 or 1200 years have given other people time to undergo great changes in their attitude towards alcohol and if the Mahomedan races are in the position of an obstructed mountain stream the dam would surely by now be showing some signs of yielding. The position of women, about whom the author is silent, is another difficulty. They presumably inherit the capacity for delighting in alcoholic excess equally with the men, and yet with local and temporary exceptions they have always been relatively temperate owing largely to the constant influence of acquired characteristics, and women as a sex give no indication to-day of wishing to burst all the barriers which keep them from drunkenness. In the present state of our knowledge it is impossible to say definitely in what proportion the inborn and the acquired factors are responsible for the genesis of inebriety, for we do not know enough about either of them. We know little of the production of variation and perhaps less of the indirect effect on children of their parents' intemperance. Under these circumstances it seems wiser to follow the line successfully pursued by Mahomedans and women, even if the resulting benefit is only to last a few thousand years, and to learn more of the influence of heredity in alcoholism before taking practical steps in the direction pointed out by the author. Dr. Reid denies that he advocates free drunkenness as a remedy for intemperance, but if there is only one way of discovering who are the unhappy possessors of the inborn characteristic to which we have referred, it would seem only common sense to give everyone an opportunity of showing whether or not he ought to be eliminated. Women especially, if the author's theory is correct, should be afforded every facility for getting drunk. They must, in his eyes, be an appalling source of danger at present!

Although we are far from agreeing with the author on numerous points we have found his book a most interesting contribution to the study of a difficult subject and we commend it to the attention of every man who thinks seriously on the great question of alcoholism.

*Encyclopædia Medica.* Vol. VIII.: Menstruation to Orbit. Edited by D. CHALMERS WATSON, M.B., M.R.C.P. Edin. Edinburgh: William Green and Sons. 1901. Pp. 563.

THE volume under review, which constitutes the eighth of the series, commences with an article on Menstruation by Mr. Christopher Martin, and concludes with one on the subject of Diseases of the Orbit by an anonymous author. Among the more important contributions which fall within

these alphabetical limits are several which belong to the department of neurology. Under the heading of "Nerves" there is a most important contribution which is jointly supplied by Mr. W. Thorburn and Dr. R. T. Williamson. It is divided into several sections which deal respectively with injuries, mono-neuritis, affections of special nerves, tumours, multiple neuritis, and neuralgia. Each of these sections constitutes a complete account, both medical and surgical, of the special subject under discussion. Considering the wide range of matter embraced under these headings and the extensive reference to special literature which so up-to-date an account must necessarily entail the authors are to be congratulated on having completed a masterpiece of condensation and lucid summarisation. In discussing the question of multiple neuritis the authors regard alcohol as the chief factor in the production of the many varieties of this condition, although they make the judicious reservation that the *foens et origo mali* may possibly be some other toxic agent, such as furfural, which may be present in alcoholic beverages as an impurity; but, on the other hand, they suggest that until it has been clearly demonstrated that ethyl alcohol is not the cause of neuritis under such circumstances, it is safer to describe under the name of "alcoholic neuritis" all cases of peripheral neuritis which are clearly traceable to alcoholic indulgence. Under the heading of "Epidemic Neuritis due to Arsenic in Beer" an excellent account is given of the recent epidemic at Manchester. The importance of two or more toxic bodies acting in combination and conducing to peripheral neuritis is strongly emphasised—a possibility which has been more than once suggested in explanation of the apparently paradoxical cases of arsenical poisoning at Manchester. Professor Oppenheim's observations published some 10 years ago are mentioned in this connexion, as also are the more recent publications by Professor Remak. Another excellent article in the domain of neurology is that of Dr. Wilfred J. Harris on the subject of "Occupation Neuroses." We notice, however, that the theories offered in explanation of the pathogeny of these enigmatic diseases do not include that of Edinger ("ersatz theorie")—a strikingly ingenious explanation of a peculiarly difficult problem. Dr. Fletcher Beach supplies some useful observations on the subject of Education of the Mind, though why "education should commence at the age of five and be continued until the child is 18 years old" is most difficult to understand, especially in face of many of the observations which follow and precede. Dr. Beach calls attention to the vital importance of the early education of the special senses and of the muscular movements, and it is difficult to believe that he would wish us to confine this form of education to the arbitrary limits of time which he imposes. The education of the mind is so closely associated with physical development, and the connexion is so ably handled by Dr. Beach, that we strongly recommend to the notice of readers an article which very clearly realises the inseparability of these two subjects. In the article on Obesity we again notice a statement which appears to be perpetuated in one authoritative work after another and which is to the effect that if the regular intake of food exceeds the nutritive requirements of the organism an accumulation of fat will be manifested in the tissues. An accumulation of fat, particularly in pathological degree, as Bouchard has frequently pointed out, is dependent rather on the individual idiosyncrasies of metabolism than on the nature or quantity of the food; in fact, to quote his own words on the subject, "Nous ne possédons pas une pathogénie de l'obésité ou des obésités," and yet time after time this most intricate problem is summarily disposed of in very much the same words as those to which we take exception in this article. Under the title of "Nose" there are 10 separate contributions by nine different authors. Among these articles we regard

that written by Dr. Greville MacDonald as a peculiarly enlightened and philosophic account of the much-vexed question of adenoid vegetations which occlude in a greater or less degree the naso-pharynx of the majority of children who live under the present-day conditions of civilisation. Although by no means confined to individuals with contraction of the superior maxilla its presence among those who suffer from this developmental error is sufficiently marked to necessitate the inclusion of this etiological factor in any comprehensive consideration of the causes which give rise to this condition. Except as regards the special articles to which we have already referred the eighth volume of the *Encyclopædia Medica* cannot be regarded as rising above the general standard of excellence which has so far been maintained with commendable uniformity.

#### LIBRARY TABLE.

*Intuitive Suggestion: a New Theory of the Evolution of Mind.* By J. W. THOMAS, F.I.C., F.C.S., author of "Spiritual Law in the Physical World." London: Longmans, Green, and Co. 1901. Pp. 160, 8vo. Price 3s. 6d. net.—Many observers have been content to accept the theory that the evolution of mind has been, and is, a parallel process with the evolution of the body, as described so ably by Darwin—the theory which has come to be regarded as capable of being described by the term "survival of the fittest." Darwin, Romanes, Spencer, and Haeckel were nearly agreed on the main principles of the theory. Huxley, Mivart, and Quatrefages among others are not so content and seek other explanations of the phenomena of development of mind. The present author, already known to the reading public for his careful investigations, advances herein a theory that the consideration of the "intuitive" faculties of all created things, from inorganic masses up to the most highly organised creature, man, will supply the hitherto missing links in the theories of the evolution of mind. Man parted company with his simian (or other) ancestors owing to the influence of the environment, which led to evolution of moral sense and reason, and, according to the author, these ancestors obtained knowledge of their environment by their "intuitive" capacity. Bats can "see" without eyes and in the dark; other animals, such as the bees, which make mathematically accurate cells, can "know" without cognitive faculties. Lower organisms perform astonishing adaptive acts without any nerve-structure or mental process whatever. "We meet with the weighty fact," wrote Haeckel, "that sense-function is possible without sense-organs, without nerves." According to Mr. Thomas, the influence of environment is to feed and to keep alive by stimulus, and to develop capacities which unfold from within. "Evolution must be the unfolding from within rather than the in-folding from without." This process of unfolding from within is the subject of the work before us, and the author has succeeded in making this abstruse subject fairly interesting. The book is evidently the outcome of a careful study of the subject, and the author has, we think, a good grasp of the whole scientific attitude towards the theories of evolution. We may express a hope that the book will be widely read and criticised by all the thinking men in the profession.

*A Dictionary of Treatment or Therapeutic Index.* By WILLIAM WHITLA, M.A., M.D. R.U.I., Professor of Materia Medica and Therapeutics in Queen's College, Belfast, &c. London: Henry Renshaw. 1901. Pp. 1025.—As we have said in our review on a previous edition of this book,<sup>1</sup> a book which covers so wide a range as the one before us is very difficult to review at one sitting. Most of the work is very good, so good that although it may appear ungracious

we think it better to point out one or two weak spots which we have come across in order that they may be altered in another edition. For instance, on page 37, where the treatment of amenorrhœa is under consideration, Dr. Whitla recommends the use of the constant current. "Beginning with 10 Leclanche cells ..... the current may be increased to 30 cells ultimately." Now the number of cells in use gives absolutely no indication whatever of the strength of the current. Cells vary in size and in power and the resistance of no two patients is the same. In prescribing electricity the number of milliampères which will probably be found useful should always be given. It is true that a few lines further on Dr. Whitla recommends large cells, but this again does not tell how much current will be given off. In the treatment of hæmoptysis we think that ice compresses to the chest wall have very little or no effect. Purgation and morphia are to our minds the sheet anchors for this alarming affection. The section on Valvular Disease is excellent, and we are glad to see that Dr. Whitla recommends blood-letting in cases of a distended right heart with pulmonary embarrassment. The number of formulæ scattered throughout the book will be found of great use, but we may point out that it is not correct to write, "Aque chloroformi ad uncias iv." (p. 703). The same grammatical mistake occurs in many other formulæ, as given by Dr. Whitla. The blemishes to which we have referred are not of any great moment, but so far as we can see the greater part of the book is well written and accurate and therefore they would be better corrected.

*A Treatise on Materia Medica and Therapeutics.* Vol. I. By RAKHALDAS GHOSH, L.M.S., Calcutta University: Lecturer on Materia Medica, Calcutta University Medical School. Calcutta: Hilton and Co. 1901. Pp. 168. Price 2s. 6d.—This little book, besides materia medica proper, contains notes on pharmacy, dispensing, pharmacology, and the administration of drugs: the consideration of toxicology and therapeutics is reserved for another volume. Materia medica, as the author remarks in his preface, is not an attractive subject and for medical men practising in towns a great deal of it is useless; but Mr. Ghosh's little book gives a very clear account of the various drugs and their preparations. The practical pharmacy section contains many useful hints, but surely there is a slip on page 99 where, under the head of Tinctures, Mr. Ghosh says, "Water is the principal solvent." Nearly all tinctures are made with alcohol although a few have some water in addition. But on the whole the book will be found very useful, although of course no one can learn dispensing entirely from a book.

*Practical Science.* By J. H. LEONARD, B.Sc. Lond. London: John Murray. 1901. Price 1s. 6d.—This is an admirable little book and Dr. J. H. Gladstone has contributed a preface. The book assumes no scientific knowledge on the part of the reader and has a chapter on Decimals which is so clear that we handed it over to a reviewer whose knowledge of any form of calculation is, as he himself confesses, next door to nothing. He reported that he never knew before the use of a decimal point or where to put it, but that after reading Mr. Leonard's instructions the difficulty was cleared up. Following the instructions on decimals come notes on measurements, length, surface, volume, and weight. Easy experiments are given and clearly described. The great point of Mr. Leonard's book is that he writes, as do too few instructors, for the absolutely ignorant pupil, and that unfortunate being is the one who is too often not considered. In all the experiments he gives the reason *why*, and in the ordinary daily course of life the average person who performs without knowing it simple chemical or physical experiments never understands the *rationale* for what he does. Ask the average cook *why* fish should be boiled with a handful of salt and in all probability, even if she does boil

<sup>1</sup> THE LANCET, July 16th, 1892, p. 145.

fish like this, she will not know why. Such books as the one before us should be scattered broadcast.

*Transactions of the Epidemiological Society of London.* New Series. Vol. XIX. Session 1899-1900. London: Shaw and Sons. 1900. Pp. 214.—Most of the articles contained in this volume have already appeared more or less fully in the reports of the meetings of the Epidemiological Society printed in our columns. The papers now published in book form are 11 in number, several of them being illustrated by diagrams, maps, and plans. The subjects dealt with are the comparative mortality of English districts, plague, diphtheria and its bacteriology, insanitary property and workmen's dwellings, distribution and control of measles, infectivity of enteric fever, immunity and resistance, and age-distribution of deaths from certain infective diseases. A fine portrait of the late Sir Richard Thorne forms the frontispiece.

*Hausa Notes.* By WALTER R. MILLER, M.R.C.S. Eng., L.R.C.P. Lond. London: Henry Frowde. 1901. Pp. 127.—Mr. Miller is a missionary of the Church Missionary Society, consequently he knows the need for such a book as he has given us. To know the language of the people to whom a missionary wishes to talk is an essential and the times of the Apostles are far distant so that a language nowadays has to be learned. Mr. Miller has transliterated Hausa into English characters and in being able to do so is more fortunate than his predecessors Cyril and Methodius who in evangelising the Bulgarians had to invent an alphabet wherein to write down words. The book seems very clear, although our knowledge of the Hausa tongue is by no means extensive.

*Brown's Madeira and the Canary Islands with the Azores.* By A. SAMLER BROWN. Sixth and revised edition. London: Sampson Low, Marston, and Co., Limited. Cape Town: J. C. Juta and Co. 1901. Pp. 339. Price 2s. 6d.—We cannot add anything to what we have said upon previous occasions about Mr. Brown's book. The fact that it has reached a sixth edition shows its value as well as anything that we can say. The book is packed full of information of the kind which the average traveller wants. There are plenty of maps which are clearly reproduced, and altogether we consider the work a model guide-book.

*Baily's Hunting Directory, 1901-1902.* London: Vinton and Co., Limited. 1901. Pp. 383. Price 5s.—Nowadays the "hunting doctor" is far less common than he used to be, but plenty other members of the community still have the time and the means for hunting; in fact, we fancy that masters of hounds would not be sorry to see smaller fields than they sometimes do see. Hunting men will find all the information they require in the book before us and we can imagine the immortal Jorrocks's delight at the account of the Waterloo run: "My vig, vot a run!"

*Queensland: Report of the Inspector of Hospitals for the Insane for 1900.* Brisbane: G. A. Vaughan. Pp. 13. Price 7d.—This annual report, by Mr. James B. Hogg, shows that on Dec. 31st, 1900, there were 1728 insane persons in the various institutions in Queensland—namely, 693 males and 357 females in the Hospital for the Insane at Goodna, 135 males in that at Ipswich, 270 males and 264 females in that at Toowoomba, and the remainder in three reception houses. The estimated population of Queensland on Dec. 31st, 1900, was 498,249, so that one out of every 288 of this number needed care on the ground of insanity. During 1900 there were 347 admissions, 167 discharges, and 123 deaths.

*Motherhood.* By CHARLES J. GLASSON, M.D. Brux. London: John Bale, Sons, and Danielsson, Limited. 1901. Pp. 91. Price 1s. 6d.—This little work contains a good deal of sound common-sense, clearly and pleasantly put, and should be of value to the young married woman or to the

mother of a family. The most interesting chapter is that on the training of young girls, and if mothers would only follow the advice given by the author they would save their daughters much unhappiness and ill-health. Dr. Glasson utters a timely warning against the tendency to crowd into a few hours of one day physical exercises which should be spread over the whole week. We cannot agree with the author when he forbids cycling for girls of from 14 to 20 years of age. He does not state his reasons, but from what he says we gather that he thinks it likely to produce irritation of the genital organs. We are quite sure that when this does occur it is due to an improperly fitted or improperly placed saddle. If such effects often accompany the use of the bicycle then there is no reason why cycling should be allowed to women over 20 years of age and not to those under that age. Altogether "Motherhood" is a useful little book.

*The Hero.* By WILLIAM SOMERSET MAUGHAM. London: Hutchinson and Co. 1901. Pp. 352. Price 6s.—Mr. Maugham's first book was, we believe, that clever, although very sombre, story, "Liza of Lambeth." In the book now before us the powers of observation which we noted in his first book are equally present, but his characters are concerned with higher mental processes than were 'Liza and her friends, for the most part. We are not so sure as is Mr. Maugham of the correctness of the title, for we take leave to doubt whether suicide as a means of getting oneself out of a difficulty is heroic. All the same, the occurrence was supposed to be accidental, so James Parsons spared his father and mother the sorrow of knowing that he had taken his own life. However, the ethics of suicide form a difficult question. Mr. Maugham writes feelingly about district visitors. There are some who would have tried the patience and gentleness of St. Francis of Assisi, and such a one was Mary. Chapter VI. is an admirable exposition of her methods, and the scene with Dr. Higgins over a bottle of port is excellent reading. Altogether we congratulate Mr. Maugham.

*Sell's Dictionary of the World's Press.* London: Henry Sell. Pp. 948. Price 7s. 6d.—"With the issue for 1901 Sell's Dictionary of the World's Press celebrates its coming of age and the commencement of a new century. No pains have been spared in making the book worthy of the double event." So runs the preface, and a perusal of the book will demonstrate the truth of the latter statement. As a complete record of the world's press arranged for easy reference this "dictionary" takes a leading place, and no more useful book can be found for professional men and commercial establishments. In addition to the newspaper and magazine lists there are to be found articles of interest to everyone. Among them we may mention "Newspapers of the New Century," "Journalism and the South African War," "The Young Journalist's Library," "Parliaments of the British Empire" (with illustrations of 20 Parliament houses), and "British Journalism a Hundred Years Ago." In this last article it is pointed out that in 1800 there were no daily journals published outside London in England, Wales, or Scotland, and that the total number of news issues was then only about 250 as compared with about 2500 at the present day. It is interesting to note that a century ago there were no sensational head-lines such as we have now for the benefit of the vociferous proclivities of the newsboy and the general annoyance of the public, but our predecessors had occasionally to contend with something perhaps even worse, for "the London newsmen were equipped with trumpets, and it was their custom to rush along the streets blowing these and shouting 'Great news,' 'Glorious news,' or 'Great British victory,' as the case might be." A portrait of Her late Majesty Queen Victoria adorns the commencement of the book, and there are many portraits of editors and others

connected with the literary profession scattered throughout the text.

*Handy Newspaper List.* London: Charles and Edwin Layton. Pp. 168. Price 6d.—This is a convenient little reference-book containing information about the newspapers, magazines, and other periodicals published in the United Kingdom, including the price of the journals, date of establishment, politics or class, and the address of the publishers. All the towns in the United Kingdom in which newspapers and periodicals are published are arranged in alphabetical order with the exception of London, which on account of its great importance as a publishing centre is placed first on the list. Whether for private use or for commercial purposes the book will be found to justify its title both as regards size and the concise and accurate manner in which the information is given.

#### JOURNALS AND MAGAZINES.

*Medical Magazine.*—The November number contains an interesting lecture by Sir Samuel Wilks on the Importance of Having a History of Diseases. By several very *a propos* instances the author shows how often a knowledge of the history of an individual disease may save repetition of former work the result of which has been neglected, and may prevent mistaken notions as to the novelty of a malady and as to the early investigators by whom its symptoms were elucidated. Sir Samuel Wilks's own work in connexion with the supposed association of leucoderma and Addison's disease affords a striking example of the need for accurate historical knowledge in medicine. Sir Samuel Wilks makes some instructive comments upon the history of small-pox and its treatment by inoculation and later by vaccination, pointing out that cow-pox, though strictly comparable with the inoculated form of small-pox, is certainly not so with the ordinarily acquired form. Other articles deal with the present position of the midwives question and with army medical reform. Dr. W. H. Allchin continues his description of the reconstruction of the University of London. What the labours must be of those engaged upon a reconstruction the mere history of which is so interminable we shrink from imagining. An article upon the Medicine and Doctors of Horace with the Public Health and Foreign sections complete the number.

### New Inventions.

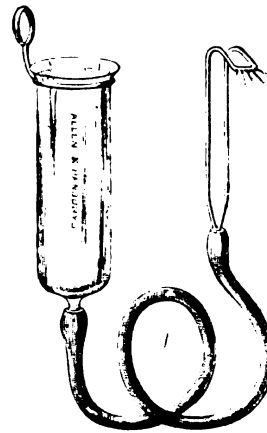
#### SAFETY EYE IRRIGATOR.

THE treatment of contagious disorders of the eye has often proved disastrous to both surgeons and nurses, and many instances have occurred of serious injury and loss of sight; now this little contrivance has been designed to give protection to the operator and also to secure rapid and thorough irrigation of the conjunctival sac. It discharges a double current of lotion with sufficient force completely to cleanse the eye without any risk of splashing and scattering the dangerous secretions. The instrument consists of two metal tubes which are bent at an acute angle at one extremity and united by a short tube which is perforated with several holes on the convex edge; at the other extremity they are joined together and form a short tube to which the indiarubber tube of the glass receiver is attached (see Fig. 1).

*Directions for use.*—The irrigator must first be carefully introduced under the upper lid and then held between the thumb and finger of the left hand and the lid gently elevated; at the same time the right hand raises the glass receiver containing the lotion. The full stream caused by the double current quickly washes out the upper palpebral sinus. The

irrigator should then be removed and introduced under the lower lid and the washing repeated. The waste fluid can be conveniently collected in a small bowl placed on the side of

FIG. 1.



the patient's head. In cases of contagious ophthalmia the sound eye must be protected by an aseptic pad during the operation. (Fig. 2.)

FIG. 2.



The instrument has been neatly made for me by Messrs. Allen and Hanburys, Limited, and with it compressed discs of sulphate of zinc, nitrate of silver, perchloride of mercury, boric acid, and sulphate of alum can be obtained ready for immediate use.

JOHN WARD COUSINS, M.D. Lond., F.R.C.S. Eng.,  
Senior Surgeon to the Royal Portsmouth Hospital and the Portsmouth and South Hants Eye and Ear Infirmary.

**SMALL-POX AT WARMINSTER.**—At a special meeting of the Warminster Town Council held on Nov. 26th the medical officer of health reported that four cases of small-pox had occurred at Warminster, two of which had terminated fatally. The first case occurred some weeks ago, the patient being a tramp who had journeyed from London. The council have secured a farm-house for the purpose of isolation.

**MEDICAL CERTIFICATES FOR SCHOOL BOARDS.**—At the meeting of the Merthyr Tydvil School Board held on Nov. 22nd the School Attendance Committee reported that they had received an endorsement by a medical man written on one of their notices to a parent respecting a child's attendance: "Unfit to attend school." When written to inquiring the nature of the unfitness a reply was received stating that on receipt of a fee the information would be given. Several members commented upon the "curtness" of the reply, but it certainly would be more satisfactory if the Merthyr School Board made some remuneration for these certificates.

# THE LANCET.

LONDON: SATURDAY, DECEMBER 7, 1901.

## Medical Aid Societies and the General Medical Council.

A CASE of great importance both to the medical profession and to those societies which employ contract medical aid was temporarily adjudicated upon by the General Medical Council on Nov. 29th. The facts of the case, which are set out in detail in our report of the proceedings of the Council, were as follows. Mr. ROBERT RENDALL, M.B., C.M. Edin., was summoned to appear before the Council to answer the following charge as formulated by the Council's solicitor: "That you have been guilty of infamous conduct in a professional respect, particulars of which are that you have accepted and continue to hold the appointment of medical officer to the Liverpool Victoria Legal Friendly Society at Great Yarmouth, a society which systematically practises canvassing for the purpose of procuring patients, and that you have approved or acquiesced in such canvassing." The complainants were the Medical Defence Union, acting on behalf of local members of the union, for whom Dr. A. G. BATEMAN appeared, while Dr. RENDALL was represented by Mr. LAWSON WALTON, K.C., M.P., and Mr. C. MATTHEWS. Dr. BATEMAN, in opening the case, reminded the Council of the resolution passed by themselves in June, 1899, which ran as follows:—

"That the Council strongly disapprove of medical practitioners associating themselves with medical aid associations in which systematic canvassing and advertising for the purpose of procuring patients are practised."

Persons, he said, were undoubtedly canvassed by agents of the Liverpool Victoria Legal Friendly Society, and these agents also canvassed for the National Medical Aid Company. Dr. BATEMAN called witnesses and put in statutory declarations to prove this point. On the other hand, various collectors, both past and present, of the friendly society gave evidence that they had never canvassed for the medical aid company and had been strictly forbidden to do so. Eventually the Council decided that the points mentioned in the notice of inquiry had been proved against Dr. RENDALL and gave him until next session to consider his position. This result was a great forensic triumph for Dr. BATEMAN who secured a victory for the Medical Defence Union against the capable pleading of two famous advocates. We congratulate him heartily upon the manner in which he conducted the case for the Medical Defence Union, and the Union for taking up and fighting a most important cause.

We are glad to see that the Council took the line that they did. We cordially approve of the conclusion to which they came, while the delay in imposing a penalty upon

Dr. RENDALL is proper. The case is in the nature of a test case and should not be unduly hurried to a definite decision. The case of medical aid societies is always a hard one with which to deal, and this particular instance is rendered all the more difficult by reason of the remarkable relations which exist between the Liverpool Victoria Legal Friendly Society and the National Medical Aid Company. The friendly society, according to its published rules, is simply a society for enabling persons by means of a weekly or monthly payment "to insure a sum of money on the death of a member, or child of a member, or an endowment upon either attaining a certain age." In other words, it is an insurance society and nothing more. On inquiry at the head office of the society we were informed that they had nothing whatever to do with the National Medical Aid Company. Concerning the accuracy of the information we were, however, a little sceptical. Our Special Commissioner, when making his inquiries for our articles upon the "Battle of the Clubs," found that the canvassers of the Liverpool Victoria Legal Friendly Society, when canvassing for membership of that society, were in the habit of opening negotiations by pointing out the advantage of paying 1*d.* per week to the National Medical Aid Company so as to secure the advantages of the medical man employed by that society. We were not, therefore, much surprised when, on inquiry at the offices of the medical aid company, we were told that every member of the medical aid company must be a member of the Liverpool Victoria Legal Friendly Society, and that no one who was not a member of that society could be a member of the medical aid company. This statement, however, is directly at variance with that of Mr. PETERS, an official of both the society and the company, who stated, in answer to Sir WILLIAM THOMSON, that any person could be a member of the medical aid company although not insured in the Liverpool Victoria Legal Friendly Society. The collectors for the one society, we were also told, worked for the other. Mr. CULLY, who gave evidence, was a district manager of both the friendly society and of the medical aid company, while Mr. PETERS, in his evidence, stated that he was chief clerk of the friendly society and also a director of the medical aid company. There would seem, therefore, to be a pretty close union between the two societies, if not, strictly speaking, an official union. And, in fact, Mr. LAWSON WALTON in his reply implied that the staffs of the two societies were connected. "It had been suggested," he is reported as saying, "that all difficulties would be avoided in future if there were a separation in the staff of the friendly society and the medical aid society, but he was informed that if such a separation took place it would not be worth the while of the medical aid society to organise a staff of its own, and that it would be better to let it die out." It seems, then, that Dr. RENDALL'S position was that of a medical referee to the Liverpool Victoria Legal Friendly Society and that incidentally the collectors of that society were accustomed to point out that Dr. RENDALL'S club—i.e., the medical aid company—was an advantageous body to join. The Council considered that they had evidence before them to prove that Dr. RENDALL was associated with an institution where systematic canvassing was carried on

and gave effect to the resolution of disapproval which they had passed in June, 1899.

The action of the Council in this test case is of far-reaching importance. We disclaim at the outset the idea that it is necessarily disgraceful for a medical man to belong to a medical aid society. But he must not work for a medical aid society which, under the guise of philanthropy, exploits the labours of medical men to whom it pays an insufficient salary. The medical aid society, as a rule, collects a large number of pennies and half-pennies from the poor, supplies them with a medical man who is always underpaid and generally overworked, and pockets any surplusage over the medical man's salary. As far as the medical aid society is concerned the position is not immoral, it is a purely commercial speculation; but the position of a medical man to such a society is altogether unenviable. Dr. RENDALL has some six months before him wherein to consider his position. We trust that he will come to the conclusion to bring himself into line with professional opinion and will cut himself off from all communication with a lay association which requires him to work in opposition to accepted medical ethics. We may have occasion to recur to this case, the importance of which is fully recognised by all parties concerned.

### The Annual Meeting of the Fellows and Members of the Royal College of Surgeons of England.

It cannot be said that any very important incidents occurred at the seventeenth annual meeting of the Fellows and Members of the Royal College of Surgeons of England, and yet the occasion was by no means devoid of interest. The attendance was decidedly small; less than 50 Members were present. Here and there a Fellow could be seen, while in the well of the theatre sat the President, the two Vice-Presidents, and two or three other members of the Council. This apathy on the part of the Members of the College is probably only apparent. It is hopeless to expect many Members living in the country to come up to such a meeting, and of those in London but few have the necessary leisure. Moreover, we cannot help thinking that many of the Members have begun to despair of ever obtaining their rights. This attitude is very comprehensible, but it is wrong. One of the greatest arguments in favour of the Members' claims would be to show that they really take an interest in the College and wish to share in its government. The Members should attend in their hundreds; the two or three hours required once a year could be spared by most men, even by those with very large practices.

The President (Mr. H. G. HOWSE), in presenting the report, pointed out two changes that had been made in connexion with the report in consequence of resolutions carried at the last annual meeting. Formerly the report was sent to all the Fellows and to those Members who chose to apply for it. Now the Fellows and Members are put on the same footing and it is sent to all who apply for it, and the names are placed on a permanent list so that it is not necessary to make a fresh application every year. The large number

of Members who have applied for a copy shows that many of them are interested in the College. The other change is the inclusion in the report of the names of those Members who have died during the past academical year. These names occupy eight pages and we obtain some idea of the proportions of the Membership of the College when we find that one year's loss includes 450 names. The Members are nearly 18,000 in number, and it is absurd that so numerous a body of educated men should have no share in the management of the College of which they are the *alumni*. The time-honoured motion in favour of the participation of the Members in the election of the Council was modified somewhat this year by the introduction of an appeal to the Council to suggest some way by which the Members might be admitted to a share in the direction of the affairs of the College. Time after time a motion has been carried to the effect that the claims of the Members are founded on justice, but no result has followed. The variant brought forward this year will meet, we fear, with no happier fate, but we may hope that time, the solver of all difficulties, will ultimately grant to the Members that for which they have for many years so earnestly striven. We commend this resolution to the careful consideration of the Council. Surely there are in that body a sufficient number of liberal-minded men to bring forward and carry through some measure of relief to the crying wants of the Members.

A motion brought forward by Dr. G. DANFORD THOMAS constituted another important piece of business. At the last annual meeting he had proposed a motion asking the Council to initiate some medical reforms, and in subsequent correspondence he had pointed out some of the more urgent of these. The Council had, after consideration, expressed its inability to take any steps in the matter. Since then a Medical Reform Bill has been drawn up by the British Medical Association, and Dr. DANFORD THOMAS asked the Council to give its hearty support to this Bill. A medical coroner is more than most other medical men in a position to recognise what changes in medical legislation are desirable. He sees many of the more gross instances of the harmful results which follow from the present state of the law, and we therefore consider the alterations suggested by Dr. DANFORD THOMAS to be of peculiar value and importance. Never before in the history of this country has quackery been so rampant as at the present day. The newspapers—not only the cheap and inferior press but organs of recognised influence and importance—contain whole pages of advertisements of safe cures, blood mixtures, and pills. Claims the most exorbitant, statements the most absurd are made, and the deluded public lose alike their money and their health, or even their lives, in the hopeless attempt to cure themselves. Without expressing now an opinion on a large matter such as the Bill already mentioned we may hope that the Council of the College may see its way to support the cause of reform of the Medical Acts. The President promised that he would bring the matter before the Council, and said that he was sure that the Council would consider earnestly the whole subject. We trust that the deliberations of the Council will result in action. The matter is urgent and quite enough abstract resolutions have been passed. The Royal College of

Surgeons of England might well make a representation to the Government.

The appointment of the representative of the College on the General Medical Council was also brought forward and it was suggested that the representative should be appointed by the Fellows and senior Members. We believe that legally it is quite within the power of the Council to assign the real election to this post to the persons suggested, reserving to itself the power of confirming the appointment. It would be a graceful concession and we cannot see that any harm could result. Of course, as the President pointed out, it would be absolutely necessary that the representative should be a member of the Council, otherwise the close connexion which is essential between the opinions of the Council and the action of the representative would be impossible; and it would be very easy to restrict the choice to the members of the Council. Two other motions were brought forward. One expressed regret that the Council of the College had not fallen in with the wish of the General Medical Council to allow the latter Council to determine what institutions should be capable of granting certificates of attendance in elementary science for the first examination for the Conjoint Board. The President stated that the Council had been influenced solely by a desire not to surrender without sufficient reason the rights of the College. The last motion was to the effect that strangers should be admissible to the gallery. We cannot see that there is any great reason against the adoption of this course, as there is no disposition to keep secret the proceedings of the meeting. Reporters are admitted and reports appear in THE LANCET and other medical journals. The motion was, however, lost by 8 votes to 7, and therefore we may conclude that there is no active desire for any such change.

In conclusion we may express again the opinion that the Members are nearing the consummation of their hopes, though exactly how soon the goal may be won none can say. We consider that the Council would be wise to devote immediate attention to the question of the representation of the Members. Surely it can be done without imperilling the stability of the College; it can be done without harming in the least medical education or examination—nay, rather it would strengthen the Council and it would add to the stability of the College to secure the hearty coöperation of that large body of men who possess the Membership of the Royal College of Surgeons of England. The Members must, for their part, not lose heart.

## The Sanitary Administration of the Metropolis.

EVEN as London is unique in the excellence of its isolation accommodation, so, too, it is peculiar in the matter of its sanitary administration. The metropolitan medical officer of health has withheld from him some of the interests which his provincial *confrère* enjoys. Here in London he finds that the water which supplies his district comes from sources over which he has no control and passes through filter-beds to which he has no right of entry. So, also, are the infectious

sick removed in ambulances which have no concern with the local sanitary authority to hospitals of which the medical officer of health has, perhaps, never seen the exterior. In other ways, too, administration overlaps, and hence the medical officer of health finds when he takes his pen to write his annual report that there are several interesting subjects connected with the public health which he is not in a position to discuss in a detailed manner. In a minor degree this dual, or even triple, administrative overlapping affects the sanitary inspector. It is for these reasons that it is difficult to compare the sanitary administration of the metropolitan boroughs with that of the large provincial towns. Moreover, the repeated alterations in the matter of London government renders it impossible to compare the London of yesterday with that of to-day. Mr. SHIRLEY MURPHY has felt this difficulty in dealing with a return as to the administrative staff of the several metropolitan boroughs which has recently been issued by the London County Council. Nevertheless, the return is of much interest, and from it we learn that, exclusive of the staff of the London County Council and of the Metropolitan Asylums Board, London, at the date of the return, was administered in a sanitary sense by 29 medical officers of health and 275 sanitary inspectors. It has, however, to be stated that this latter number does not include the clerical staff or the assistants to the inspectors. Both these facts must be borne in mind in any comparison between the several districts.

Taking first the medical officer of health we find that in the matter of time and remuneration there is a want of uniformity. On the one hand we have the City of London, with a night population of 26,897, engaging the whole-time services of a medical officer of health for £1000 per annum—and no one can reasonably contend that the City should not possess a whole-time medical officer—and, on the other hand, we have the borough of Islington, with a population of 334,928, engaging a whole-time officer for £800. Again, Chelsea, with a population of 73,856, pays £500 a year for a part-time officer; while Holborn, with a population of 59,390, considers a whole-time officer necessary and pays him £700 per annum. Again, Bethnal Green, with a population of 129,681, thinks that the work of its district does not require the whole time of a medical officer of health, and the Council gets rid of its responsibilities by paying £300 to a part-time officer. Paddington, with a population of 143,954, expects the whole time of its medical officer of health for £600. Here, then, are some rather pronounced anomalies which may usefully be remedied in the near future. It is unreasonable to suppose that a medical officer of health who is compelled to reside in London can properly maintain his position on £600 a year. The statutes are yearly imposing additional duties upon these officers, and each year the position which medical officers of health occupy is becoming of more public consequence. The Local Government Board has, we believe, endeavoured to fix £600 as the minimum limit for a whole-time medical officer of health in London, and, although they have succeeded in several instances, they have not yet brought about whole-time appointments in all cases where such appointments are obviously necessary.

As regards the sanitary inspectors, it is difficult to

make comparisons without more particulars than are forthcoming. There are, however, indications that a decided improvement is taking place. When, for instance, the figures for 1898 are, where comparable, compared with those of 1901 it is found that in the majority of districts there has been an increase in the number of inspectors; and in some this augmentation has been very substantial. Mention may be made of Kensington which has set an excellent example by engaging six additional inspectors, and of Southwark where five have been added. Westminster, however, shows a falling off, as also does Battersea. The population to each inspector varies from one to 1921 in the City of London (where, however, it has to be noted that seven of the inspectors are concerned with meat inspection alone) to one to 25,623 in Stoke Newington, one to 23,992 in Paddington, and one to 23,221 in Lambeth. As a general rule the population to each inspector is smaller now than in 1898, and it would seem that female inspectors are being employed considerably more than heretofore. But before accurate comparison can be made with respect to the staff of the several districts it is necessary to know precisely how the work is apportioned. The average population to each inspector is apt to be misleading, as may be seen by a reference to Hammersmith with a population of 112,245, where the average is given at one inspector for 14,031 people. But it would seem that in point of fact the whole population is distributed among four inspectors. The remaining inspectors are engaged in special work of one or another variety. However, it is gratifying to learn that the tendency generally is in the right direction, and much of this improvement is doubtless due to the inspections and reports made by the medical officer and assistant medical officers of the London County Council. The inspection of Kensington in 1899 has not improbably had some influence in hastening on the excellent results to which reference has already been made.

### Sir William Mac Cormac.

THE information of the sudden death of Sir WILLIAM MACCORMAC at Bath on Wednesday morning was received with considerable astonishment by the public, both medical and lay, but those who were well informed of the state of the deceased surgeon's health were not so entirely unprepared as those who had not seen him lately and whose recollections of him were chiefly based upon his commanding appearance at public functions not many months ago. In another part of the paper we give a full biographical notice of Sir WILLIAM MACCORMAC'S interesting and successful career. He will long be remembered among his generation of surgeons, his numerous official positions keeping his striking personality ever in the public eye. He was a sound and bold surgeon, much trusted in high places, whose dignified presence did justice to an extraordinary list of honours. Sir WILLIAM MACCORMAC had reached an age at which a man has earned a right to leisure when the needs of his country took him to South Africa as consulting civil surgeon to the South African forces. The arduous work that he then undertook was chronicled in our columns, his regular reports of the surgery of the campaign being eagerly looked for by our

readers. It seems undoubted that his services to his country are largely responsible for his death. Although he had had one or two severe illnesses notably he suffered some few years ago from empyema he was in sound health when, at the age of 64 years, he went out to the seat of war. There he contracted dysentery and since his return it was noticed by his friends that his loss of vitality was marked. The weakness and depression lately became much increased, and on Monday he went to Bath to see whether hot mineral baths would give him relief from his most painful symptoms—insomnia and vague pains in the loins and back. He had a bath on Tuesday, and appears to have derived benefit from it; but on the following morning he died suddenly from cardiac failure.

### Annotations.

"Ne quid nimis."

#### THE NEW PRESIDENT OF ST. BARTHOLOMEW'S HOSPITAL.

THE ancient foundation of St. Bartholomew's Hospital has once more a Prince of Wales for its President, and the ceremony of installation took place on Dec. 3rd. It was held in the Great Hall, and among those present were the Lord Mayor, Alderman Dr. T. B. Crosby, and several other members of the Court of Aldermen. Sir Trevor Lawrence, in introducing the new President, spoke of the past history of the hospital and referred to the great interest which the late President, now His Majesty the King, had always taken in the work of the institution. The two charges, that of Governor and of President respectively, were then read to His Royal Highness, and he, having taken the Presidential chair, made a suitable reply. It is right that no break should occur in the royal traditions of St. Bartholomew's Hospital, for the foundation has always been connected with the Crown.

#### THE PAY OF CIVIL SURGEONS.

THE civil surgeons who patriotically and gallantly volunteered to help Government in its time of need have not been treated with decent liberality. They were prepared, and doubtless anxious, to serve at the front, but it was thought better to retain them at home and thus liberate trained military officers for active duty in the field. The men who came forward in our national emergency are all qualified practitioners of some standing, while many amongst them are holders of the higher degrees and diplomas which in civil life generally ensure pecuniary advantage. The rate of pay allotted to them by Government appears to us to be totally inadequate, being, in fact a little less than that of a junior army medical officer, who, in addition, is entitled either to a gratuity after some years' service or else to a pension for life. We prefer not to enter upon the invidious subject of the pay allotted to officers of other departments. On their own merits, and quite irrespective of adventitious circumstances, the gentlemen now acting in the place of commissioned officers in the United Kingdom are clearly entitled to increased remuneration. They should be paid in proportion to not only their own professional standing but also in proportion to the pay of the officials whose peace-time appointments they are filling. It seems perfectly clear, also, that civil surgeons employed under the War Department for home duty are entitled to the gratuity specified in Army

Order 136 of June, 1901. It is indeed difficult to understand how the money can be withheld from them, for they certainly come under the head of "civilians appointed to military positions." The action of the Secretary of State for War in refusing to allow this gratuity appears to us to be distinctly arbitrary. He assigns no reason for adjudging the civil surgeons "not eligible," but simply says he "has decided." Unquestionably this withholdment is incompatible with the spirit of Army Order 136. There has been a considerable amount of correspondence on this subject in the public press, but, unfortunately, the prevailing tone was not all that could be desired. There is nothing to be gained in such a case by the adoption of a would-be satirical style. On the contrary, it has a tendency to irritate "the authorities" who, after all, are merely men of like passions with the satirists. Apart from higher considerations, it is a mistake in seeking a boon to try to hurt the feelings of the person who has the conferring of it.

#### EIGHTEENTH-CENTURY REMEDIES FOR CANCER.

WITH regard to an annotation which recently appeared upon the traditional and mediæval therapeutics of the violet a correspondent has written to us pointing out that when the medicinal powers of the violet were most believed in it was never considered to be a cure for cancer. "The sovereign charm," he writes, "for that worst of human ills was the morel, a species of fungus said to be of Italian origin. Human milk, too, honey, and new bread, were ingredients in the plasters laid by forgotten leeches upon growths most probably non-cancerous, but suspected of malignancy in their action or developments. The human milk is, of course, a manifest survival of tribal cannibalistic ideas. It was still recommended among the ingredients of a 'precious medicine' which 'will bring forth a cancer, and pluck it up by the roots' in a popular chapbook of the date 1791. It is curious to note, when tracing the evolution of a recipe from such a book as this through such works as Sendall's MS. of the Commonwealth era to the early writers in Henslow's book, how persistently the mere ritual of the so-called cure survives when the components of the emplastrum or pill have changed half a dozen times. Morel gives place to the white of an egg, and both are now merged in a decoction of violet leaves, but the milk 'of one that hath been a mayde and hath given birth to a knave' is recommended at the dawn of the nineteenth century, while the directions as to the use of lint, a form of bandage rarely, if ever, mentioned in chapbooks, survive from the days of Rufus to the opening years of a new era of enlightenment. The ancient belief was that the lint or cloth, laid upon the growth, would bring it away 'in the morning.' 'In the morning thou shalt find the Cancer dead on the said plaister. This is most true. I copied this out of an old written book.' Nowadays there is no talk of growths being brought away in the night, but none the less the lint is used and the symptoms of the disease are recorded as vanishing in 14 days."

#### GLASGOW UNIVERSITY CLUB, LONDON.

THE autumn dinner of the Glasgow University Club, London, was held in the Hotel Cecil on Nov. 28th, Dr. George A. Heron presiding. About 70 members and guests were present, including Professor J. M. Thomson, F.R.S., Professor Cormack, the Hon. Charles Rothschild, Mr. Gilbert Heron, and Professor C. R. C. Tichborne. Dr. C. O. Hawthorne, one of the secretaries, read letters regretting inability to attend which had been received from Lord Kelvin; Sir William Gairdner; the Rev. Dr. Story, Principal of the University; Professor James Dewar, of the Royal Institution; Mr. J. A. Campbell, M.P. for the Universities of Glasgow and Aberdeen; and from the Secretary of the Carnegie Trust. The loyal toasts having been

duly honoured Dr. Heron proposed the toast of "The Club" in an eloquent speech, the interest of which was enhanced by an outline of the founding and early history of the association. It originated, he said, in 1886. At that time there was already in London a Glasgow and Aberdeen Universities Club, but the number of graduates of each university seemed to be sufficient to justify a separation. Dr. Heron accordingly suggested this course to several of his acquaintances, first consulting the late Dr. John Chalmers and Dr. David Finlay, now the professor of practice of medicine in Aberdeen University. The scheme was favourably received, and in the result a meeting was held in Dr. Heron's house, and the club, which had been a success from the commencement, was then founded. At the first dinner Lord Kelvin was in the chair and the company had the unusual experience of hearing seven speakers reply to the toast of "The Club." Dr. Heron, in concluding, spoke of the beneficial effect which Mr. Carnegie's gift would have on the Scottish universities. The toast of "The Scottish Universities" was proposed by Sir Christopher Nixon (Dublin) and acknowledged by Sir J. Batty Tuke, M.P. for the Universities of Edinburgh and St. Andrews; that of "The Guests" was proposed by Dr. D. C. McVail and acknowledged by Sir James Crichton Browne; and "The Chairman" was proposed by Mr. J. R. McIlwraith.

#### FOREIGN PRACTITIONERS IN CAPE COLONY.

THE Colonial Medical Council of Cape Colony, at a recent meeting at Cape Town, passed by a large majority of those present a motion to amend the regulations governing the admission of foreigners to practise in the colony by the introduction of a new regulation: "That no diploma granted by the Government or any university or other body of a foreign country shall entitle the holder thereof to registration as a medical practitioner or dentist in this colony unless equal rights and advantages are given in such country to the holder of any British registrable degree." An amendment to the effect that the Government should rather be approached and requested by diplomatic intervention to endeavour to achieve reciprocity was lost. The motion and the amendment were respectively proposed by Dr. A. J. Gregory, medical officer of health of the colony, and Mr. J. H. M. Beck, M.L.A., and considerable discussion took place before the original motion was carried. The new regulation now awaits the sanction of the Governor of the colony, and should it secure his approval a step of some importance will have been taken in the interests of medical men with British qualifications practising in Cape Colony. It is quite possible that the establishment of a regulation such as that quoted throughout all British colonies might result in the establishment of a reciprocity which would be warmly welcomed in place of the unequal conditions at present prevailing, where British colonies admit foreign medical men to practice. The nature of these conditions, which naturally are conspicuous in South Africa where British possessions are immediately bounded by those of other European nations, was illustrated at the discussion which took place in the Medical Council of Cape Colony. It was pointed out, for example, that medical practitioners registrable in Cape Colony could not practise in German Damaraland, and that on the Crocodile river, close to Portuguese territory, the Portuguese medical man could practise on the English side, while the English practitioner had to confine his practice to his own colony. Naturally inequalities of this kind are extremely galling, particularly when the foreign practitioner may be regarded as a person not altogether loyal to British rule and friendly towards his English colleagues, while apart from such political questions, with which we do not pretend to concern ourselves

here, the foreign diplomas upon which the foreign practitioner claims registration may not, and in many instances do not, represent the same degree of professional training and tested skill that is implied by the diplomas granted by examining bodies in Great Britain. The proposed regulation is apparently intended to be supplementary to the rules already existing in Cape Colony as to the admission of foreigners to practise there. Its immediate aim is to exclude foreigners qualified under these rules from medical practice in Cape Colony as long as British practitioners are excluded from practice in colonies of the country to which the foreigners belong, or, let us say, in foreign colonies situate in South Africa. We gather that the exclusion desired in Cape Colony already exists in Natal, but that the precise attitude of the profession in Rhodesia was not known at the meeting at Cape Town, while Orange River Colony and the Transvaal have yet to be reckoned with. In these circumstances it seems to us that the regulation proposed in Cape Colony may have important local effects in the exclusion of foreign practitioners, but that the establishment of the reciprocity suggested, even locally, between British colonies in South Africa and foreign colonies that impinge upon them, must of necessity be for some time delayed, while it is not likely to take place without the diplomatic intervention suggested in the lost amendment to which we have referred. That such reciprocity should soon become general between all British colonies and those of any other nation or nations seems to us highly unlikely, while we are not sure that it would be desirable. British practitioners would have more to lose than to gain, and the standard of medical practice in those colonies which now exclude foreigners would not be raised. There is, however, obvious justice in the protest of the British practitioners in Cape Colony against the admission of foreigners to compete with them without any corresponding privilege being granted in return, and we shall look with interest to see the way in which the Governor deals with the matter. There is no doubt a large foreign element to be considered in Cape Colony, but on the other hand, in foreign colonies there are usually large numbers of British residents who would be glad to be attended by their compatriots, but who have to submit to seeing them excluded.

#### INTERMITTENT HYDRARTHROSIS.

THE *Boston Medical and Surgical Journal* of Oct. 31st contains a report of two cases of this curious and little-understood condition by Dr. E. G. Brackett and Dr. F. J. Cotton. In one case a man, aged 30 years, gave a history of good health until four years previously, when he began to suffer from occasional pains in the hips, thighs, and knees. Then swelling of the knees occurred periodically for a few days. The trouble gradually increased with greater disability not only at the time of the swelling but in the intervals. Change of residence to various parts of the United States proved useless. When he was seen his general condition was below normal. The knees became swollen alternately with perfect regularity. There were first feelings of heat and pain and tenderness of the joint with malaise. In two or three days the joint became filled with fluid. The swelling gradually disappeared in about four days. One knee was fixed and quinine was given in daily doses of 20 grains. The intervals between the attacks were lengthened by one or two days, then an attack was omitted, then the attacks became slighter and less frequent, and finally they disappeared. In the intervals the only symptoms were weakness of the knees and some limitation of flexion and extension. In the second case the patient was a woman, aged 35 years, in good general condition. The first attack followed slight injury of the knee. The joint became swollen every 10 days for a period

of four days. In the intervals there was no disability. The treatment followed in the first case was unavailing, but the condition gradually yielded in the manner of the first case to persistent treatment by arsenic, strychnia, and creasote. Fixation and local treatment were useless. In nearly all of the recorded cases, which amount to 68, a calendar-like regularity of the attacks is described. The joint most frequently affected is the knee. In 41 out of 55 cases one or both knees were involved without affection of other joints. The hip, shoulder, elbow, wrist, ankle, jaw, and spine have been affected. One joint alone may be affected for many years, or after a time others may be affected simultaneously or alternately. As a rule local heat and redness are absent and tenderness is often absent. In many cases there was no pain, only discomfort; in others pain was marked. In a case recently described by Benda there were for years periodic pains in various joints at monthly intervals before effusion appeared. Much pain may occur in the earlier attacks and less in the later. Languor during and after the attacks is common. Headache, chilliness, or slight pyrexia is described in a few cases. The duration of the attacks varies greatly. The extremes are a case of daily attacks lasting an hour and a case of attacks lasting from 19 to 21 days with intervals of eight days. The duration most often recorded was three or four days. The time of recurrence was singularly constant. From beginning to beginning of attack the most usual period was 14 days, the minimum was 24 hours, and the maximum was three months. A change of interval is described in some cases—e.g., from 30 days to eight days, from three months to 11 days, from seven days to three days, and from 14 days to 21 days. In some cases this change followed temporary immunity. In a few cases there was progressive shortening or lengthening of the interval. In some cases the periods corresponded to those of menstruation. The average age at the onset was 26 years; the extremes were 12 years and 54 years. As to sex there was a slight preponderance of females. The weak and the robust were apparently equally affected. Intermissions sometimes occurred and lasted for several years. In five cases the attacks stopped during pregnancy, but such intermission was not constant, even in the same patient. In the majority of cases there were no articular signs in the intervals except sometimes a little thickening or laxity of the capsule, or crepitation. Of the pathology nothing is known and therefore a number of theories exist. The one most accepted is that the disease is a vaso-motor neurosis. In favour of this are the concurrence of angio-neurotic oedema in some cases and of functional nervous disorders in others, and the influence of mental conditions on the attacks. The remedies recommended, as might be expected, are numerous. Arsenic and quinine seem to be the best remedies, but the prognosis is not good.

#### THE METROPOLITAN WATER-SUPPLY.

It is announced that during the next session two Bills will be promoted in Parliament, each of which contains clauses having reference to the purchase of the metropolitan water companies. Of these Bills one is apparently to be adopted as a Government measure, the other is promoted by the London County Council. We do not propose on the present occasion to consider in detail the provisions of the Government Bill, but it may be of interest to mention some of the points with which it deals. The great central feature of the Bill is the formation of a new public authority—a Water Board—which is to be invested with power to purchase the existing metropolitan water companies and the property now vested in the Staines Reservoirs Joint Committee and after a certain date to undertake the responsibilities and duties of supplying the water within a certain defined area. It may be remarked that the drafting of the Bill in regard to

this last matter shows that care has been bestowed on matters of detail. The area which it is proposed should be under the control of the Water Board includes Sunbury, Chessington, and Cuddington, places which are at present supplied without parliamentary authorisation. The suggested method of appointment of the members of the Water Board will naturally excite interest. They are to represent the councils of certain counties, boroughs, and urban districts, the Corporation of the City of London, the Thames and the Lee Conservators, "and any other bodies or persons that may be named in the intended Act." Full provision is made as to the method of purchase of the present water undertakings, and the Board are to be enabled to inspect the lands and to examine the accounts of the companies. A "water stock" is to be created to enable the Board to acquire the property of the water companies, and it seems likely that some advice given to the Llandaff Commission by Mr. Banbury on this point has not been entirely disregarded. A brief study of the chief provisions of the Bill shows that a considerable amount of thought and trouble has been bestowed on it and that it is at least worth very careful consideration. The London County Council Bill provides for the purchase of the Metropolitan Water Companies and the Staines Reservoirs Joint Committee's undertakings by that body. It contains provisions as to the manner in which the purchase is to be made and how the money required is to be raised. Provision is, moreover, made as to the re-sale of part of the undertakings to county or local authorities whose districts are outside the county of London.

#### OBJECTIONABLE ADVERTISEMENTS.

ADVERTISEMENTS of the class with which we dealt in our articles entitled "Quacks and Abortion" are beginning to re-appear, after having been for a time less conspicuous than formerly. It was hardly likely that the prosecution of the Chrimes brothers and of "Madame Frain" would cause others permanently to abandon a profitable trade, and it is a trade which lives by advertisement and can afford to pay for it. We have before us the November number of *Leach's Family Dressmaker* and the December, or Christmas, number of *Leach's Children's and Young Ladies' Dressmaker*, two papers emanating from the same office, which appear, as their names imply, to afford hints and instructions on needlework and the making of clothes to the female members of middle-class or lower middle-class households. In both of these we find advertisements of Allen (the Irristum Company)<sup>1</sup> and of Martin's apiol and steel pills for ladies, whose wares and literature we have dealt with fully in THE LANCET.<sup>2</sup> In the *Family Dressmaker* we find the advertisement of "'Dr.' Davis's Famous Pills, a Boon to Womankind," of which also we have written.<sup>3</sup> In both papers are several other advertisements either promising cures for "obstructions" or otherwise inviting women to try quack medicines the object of which is thinly disguised or left to the intelligence of the reader to supply. The chief difference between the two papers is that the *Family Dressmaker* appears to group all its advertisements of this class on one page, the inner page of its cover, while the other paper scatters them. We cannot say that either method of making such trades known is worse than the other, but we call attention to the fact that Allen's advertisement and that of "M.D.," to which we shall refer below, appear facing an article in the *Children's and Young Ladies' Dressmaker* entitled, "How to Make your own Christmas Cards," which begins: "I fancy every girl at some epoch in her career cherishes a secret ambition to design her own Christmas cards"—an article clearly addressed to young girls

and not to their mothers. Facing this article there also appears this advertisement:—

**TO THE MARRIED.—EVERY Married Couple** should write at once for my INVALUABLE BOOK of ADVICE, which contains everything that a wife ought to know. It is sent GRATIS on receipt of address.—Apply, Dr MAURIER, 110, Clarence Road, Clapton, London.

The advertisement of "M.D.," referred to above, is as follows:—

**TO MARRIED LADIES.—MY Remedy** is not a dangerous drug, but a wonderful Secret Invention. Never fails. No quackery. Particulars Free to all Applicants on receipt of a stamped addressed envelope.—Apply to M.D., 217, Graham Road, London, N.E. Caution.—Only Address.

As it was one that we did not remember to have observed before we caused a letter to be written as from an unmarried woman asking for the particulars promised, and received in reply the price-list of "Malthusian appliances" which so frequently and so clearly indicates the object of the "remedy" offered, together with a leaflet describing the "remedy" itself, which in this case is entitled "Paris Pills." These are stated to contain secret "powerful ingredients protected by Government stamp," with regard to which untrue statement we may point out how undesirable it is that the taxing of nostrums should so be done as to enable Government "protection" to be falsely claimed for them. On the same leaflet appears conspicuously the sentence, "Not to be taken in cases of pregnancy or for an unlawful purpose," which is the warning so often found in the literature connected with these "remedies," a warning which in this case again draws attention to the powers claimed for the "Paris Pills" by the advertiser. From Allen we have received in reply to a similar application full particulars of the merits of "Irristum," with testimonials, which, as far as we see, are the same as, or similar to, those which we have had before from the same address. With regard to all these advertisements and to many others like them, which, no doubt, the proprietor of Leach's journals may from time to time be offered if he shows himself willing to admit them to his columns, we have nothing to add to what we have already written on this subject. They offer drugs in terms which are calculated to induce pregnant women to buy them in the hopes that they may be able to produce abortion upon themselves. They are either incentives to actual crime or, if mere swindles, they cause ignorant persons to attempt crimes which the drugs themselves are, perhaps, not calculated to enable them to commit. In any case their nature cannot be said to be concealed by the terms employed, and it is only surprising that respectable firms should allow their own advertisements of the goods in which they lawfully trade to appear in the same paper and on the same page with such notices as those which we have quoted and commented upon. We note, for example, the advertisement of Messrs. Allen and Hanbury on the page of the *Children's and Young Ladies' Dressmaker* to which we have drawn special attention.

#### THE OPEN-AIR TREATMENT OF PHTHISIS AND THE CONDITION OF THE TEETH.

In a recent address to the Odonto-Chirurgical Society Mr. H. B. Ezard drew attention to the very unsatisfactory condition of the teeth of many of the patients undergoing the open-air treatment for pulmonary tuberculosis. In this treatment, as is well known, the feeding of the patient is most important, and to obtain the greatest amount of value from the food it is necessary that the act of mastication should be efficiently carried out. Professional curiosity seems to have led Mr. Ezard to examine the teeth of the patients in a sanatorium in which he himself was undergoing treatment. The result of his investigation was as follows: "Out of 192 possible molars 12 were in action.

<sup>1</sup> THE LANCET, Dec. 24th, 1898, p. 1723.

<sup>2</sup> THE LANCET, Dec. 31st, 1898, p. 1808.

<sup>3</sup> THE LANCET, Dec. 31st, 1898, p. 1808.

and taking the average age, 26, out of the possible 32 teeth only eight were in action—i.e., 75 per cent. of the first process of nutrition had been lost." These figures speak for themselves and indicate that the importance of the teeth has been in some cases unconsciously overlooked by medical practitioners in whose care such patients are placed. There is, however, another point in connexion with the mouth to which Mr. Ezard did not draw attention—namely, the importance of rendering all mouths as far as possible aseptic by the removal of septic teeth and the treatment of suppurative conditions of the gums and peri-odontal membrane. Recent writers have shown that the constant absorption of septic matter generated in the mouth is a fruitful cause of systemic disease, more especially of the alimentary tract. Such septic matter if present in the mouth of those undergoing the open-air treatment must to a great extent counteract the advantages gained by the remedies employed. In combating tubercle no stone should be left unturned in endeavouring to restore perfect nutrition, and the condition of the mouth certainly should claim the attention of those having the care of such patients.

#### PROFESSOR W. J. R. SIMPSON.

PROFESSOR SIMPSON, while engaged upon the inquiry into the prevalence among our army in South Africa of dysentery and typhoid fever, was, it may be remembered, requisitioned at Cape Town upon the outbreak of plague there. At Lord Milner's request the Government offered to place his services at the disposal of the Government of Cape Colony, and during some months of his stay in South Africa he superintended the measures taken for the prevention of plague in that colony. This week he has started to investigate the causes of the prevalence of plague in Hong-Kong. Professor Simpson is utilising in a splendid manner in behalf of his country the unique experience of epidemic disease in tropical and eastern climates which he gained during his long tenure of office as medical officer of Calcutta. Many will envy him the credit of his responsible appointments, but few appreciate the strain that such work, thoroughly conducted, puts upon the investigator.

#### THE FEES OF IRISH MEDICAL WITNESSES.

AN appeal recently heard in the Dublin courts shows that in the matter of fees allowed to witnesses the law governing costs in Ireland might well be assimilated to that of England. The particular facts of the case in question are alluded to by our Dublin Correspondent. It will suffice to say that an action had been won involving judgment for damages and costs by a man who had been injured by the defendant's negligence. Certain attendances of medical witnesses had been allowed by the taxing-master at five guineas a day, but the King's Bench Division on appeal held that the taxing-master had no discretion to go beyond the scale laid down for his guidance and that the allowances in question must accordingly be reduced to a guinea each, one of the judges expressly calling attention to the fact that in England the taxing-master has a discretionary power in these matters, while in Ireland the rule is binding. He might have added that in certain circumstances even in a county court action in England by the order of the judge the fee allowed to a scientific witness may exceed the guinea prescribed by the Irish rule. We need hardly point out that any hard-and-fast rule cutting down the fee of the medical practitioner to beggarly proportions operates to the prejudice of the poor man in all those cases in which he is the plaintiff and in which, as is usually the case, the defendant is better endowed than he with the means with which to carry on litigation. The medical man cannot sacrifice his usual earnings from his profession, possibly for several

days, without compensation, and the person who has been injured is obliged to call a witness whom he can only hope to repay out of the damages which the jury may award him. It must not be forgotten that the medical man may find himself, owing to circumstances beyond his control, almost bound in honour to assist with his testimony a patient whom chance threw in his way and whom, when he came to him as a patient, he could not have refused to attend. He is a member of a profession which in this respect is unique, and the hardship imposed upon medical practitioners and patients by the rule referred to may well occupy the attention of those who have framed and can presumably amend the Irish rules relating to law costs. Where, as in England, the fees are more or less a matter of discretion they do not even then in most cases compensate the witness for the pecuniary loss which lost time implies, while of trouble and anxiety they take no account.

#### PREGNANCY AND NORMAL LABOUR AFTER EXTIRPATION OF ONE KIDNEY.

IN the *Deutsche Medicinische Wochenschrift* of Nov. 21st Dr. Steinheil of Kochendorf-Jagstfeld relates the following case. In June, 1895, he was consulted by a woman, 25 years of age, and not long married. She was of stout build and felt well but was very pale. Her left kidney had been removed for tuberculous disease seven years previously by Professor König who had warned her that pregnancy would be dangerous for her, and every endeavour had been made to avoid conception, but she was nevertheless now in about the second month of pregnancy. In the region of the left kidney there was a firm painless operation scar. Slight pains, not precisely localised, were felt in the abdomen. The urine, which was passed in small quantity, often with a certain amount of effort and sometimes involuntarily, contained much pus and a little blood. Dr. Steinheil already knew of cases in which pregnancy and normal labour had occurred after extirpation of the kidney, and he thought that in the present instance there would be less risk in waiting than in inducing premature labour. The woman felt quite well all through the pregnancy. Labour occurred in February, 1896, and was completed with forceps. Retention of urine, however, followed and was attended by such extreme pain, if not promptly relieved, that it was deemed necessary to use a self-retaining catheter, but the mucous membrane of the bladder showed itself more tolerant of catheterism than might have been expected; normal micturition was re-established on Feb. 25th and by the end of March the patient was able to travel to a different part of the country. After this she enjoyed good health for more than a year and a half, dying in November, 1897, but from what disease Dr. Steinheil did not know. The child remains in good health.

#### THE NATIONAL DENTAL HOSPITAL AND COLLEGE.

THERE was a very successful gathering of the past and present students of the National Dental Hospital and College on Nov. 29th at the Royal Venetian Chamber of the Holborn Restaurant, when the annual dinner was held. Mr. S. J. Hutchinson, who presided, in proposing the toast of "The King," testified to the interest which His Majesty always took in medical charities, and referred in congratulatory terms to the fact that the King had recently given permission to the sister dental institution to prefix the word "Royal" to the title of the hospital. This toast having been drunk with musical honours, that of "Her Majesty the Queen and the rest of the Royal Family" was also received with enthusiasm. In proposing the toast of the evening, "The National Dental Hospital and College," the Chairman dwelt on the enormous responsibilities which

devolved upon the dental hospitals and the dental departments of general hospitals with regard to the health of the community, remarking that the future strength of the empire would very largely depend upon the care of the teeth. As an example of the importance of the care of the teeth he stated that no less than 50 per cent. of the applicants for employment in the South African Constabulary were rejected because they had not a sufficiently practical masticatory apparatus. The War Office, he was glad to say, had already recognised the importance of dentistry and before many years had elapsed, he believed, there would be a properly organised dental department in the army. The chairman concluded by referring to the excellent opportunities for study which presented themselves at the National Dental Hospital. Mr. P. Sidney Spokes, the Dean, in responding, said that the school was in a flourishing financial condition. The aim of the college in teaching was to give the student self-reliance and to impress upon him the fact that the tooth was only one organ in a very complex organism. He mentioned that for the benefit of old students it was proposed early in the new year to offer them a course of bacteriology in order to put them in line with the present teaching. Mr. Spokes then presented a handsome "tantalus case" to Mr. Marcus Davis who is resigning from the staff. Mr. Davis briefly replied. The other toasts were "The Past and Present Students," proposed by Dr. H. P. Noble and responded to by Mr. P. G. Pavitt and Mr. J. P. Glassington; "The Visitors," proposed by Mr. Glassington and responded to by Major Woods; and "The Chairman," proposed by Mr. W. Rushton. The proceedings of the evening were enlivened by a programme of music, songs, and recitations.

#### THE PHYSIOLOGY OF THE HYPOPHYSIS CEREBRI.

IN an article on this subject in Pflüger's *Archiv für Physiologie*<sup>1</sup> E. von Cyon observes that this body has awakened great interest and has been the subject of many experiments which, however, are not always in accordance with each other. The method of ablation can hardly be practised on account of the anatomical position of the hypophysis, but the organ is accessible from below, where it can be exposed by the use of a trephine without much difficulty. The results of his investigations are as follows. The hypophysis cerebri has a double function: it regulates the intracranial blood-pressure and it regulates metabolism. The former function is effected mechanically by the circumstance that every increase of blood-pressure in the brain constitutes a stimulus to the hypophysis and is followed by an increase in the strength and a slowing of the cardiac beats with slight rise of the extracranial pressure. These rarer and stronger beats of the heart, which von Cyon names "action-pulse," augment the rapidity of the venous blood current, especially in the veins of the thyroid body, and thus remove from the brain the abnormal quantity of blood. There is reason to believe the same effect is in part due chemically to the production of substances which are probably two in number, one of which persistently excites the vagal centres whilst the second excites the accelerators. The action-beats caused by these coincident and harmoniously acting antagonistic agents are highly favourable to the rapidity of the venous blood current. The influence exerted by the hypophysis and its secretions on metabolism is also probably effected by their action on the vagi and sympathetic nerves, and is indicated by increased oxidation and a diminution of body-weight. Persistent stimulation of the hypophysis, especially by electrical currents, is followed, as a secondary effect, by violent epileptiform convulsions, which are most easily explained by regarding them as disturbances

of the circulation in certain parts of the brain. Von Cyon noticed, but was of opinion that the circumstance was worthy of further corroboration, that erection of the penis took place which remained long after the hypophysis had ceased to be excited. Another phenomenon was observed in all cases of electrical stimulation of the hypophysis—a great increase in the secretion of urine.

#### MODERN VACCINATION.

THE debate at the meeting of the Royal Medical and Chirurgical Society to be held on Dec. 10th promises to be of extreme interest. It will follow an address to be given by Dr. Monckton Copeman upon "Modern Methods of Vaccination and their Scientific Basis." The address will be copiously illustrated by lantern slides, and the subject is specially interesting at the present time when, as a reference to our columns will show, small-pox is by no means upon the decrease in London.

#### DINNER OF THE OTOLOGICAL SOCIETY.

THE second annual dinner of the Otological Society of the United Kingdom was held at the Café Monico on Dec. 2nd. About 70 members and guests were present, the chair being taken by the President, Sir William Dalby. Among the guests were Sir Thomas Barlow, Sir James Crichton Browne, Dr. Ferrier (the President of the Pathological Society), Mr. Watson Cheyne (the President of the Medical Society of London), Dr. W. H. Allchin, and Mr. Bernard Pitts. After the toast of "The King" had been honoured Sir James Crichton Browne proposed "The Otological Society." He pointed out that the need for further specialisation than had formerly existed was owing to the vast extent of modern medical knowledge, so that a divorce, or at least a judicial separation, between the ear and the throat had become a necessity. The President, in reply, stated that the large amount of the work which the society had accomplished during the past year was sufficient justification for its existence. Mr. Stephen Paget in a felicitous speech proposed the toast of "The Guests," and Sir Thomas Barlow, in acknowledging it, asked that the special researches and results dealt with by the society should not be confined to it, but when matured they should be brought to the older medical societies, so that the whole profession might appreciate and participate in these advances in knowledge. Mr. Charles A. Ballance proposed the health of the retiring president, and Dr. Urban Pritchard also said a few words. The toast was received with enthusiasm. An interesting novelty was the toast-list; it was ornamented by instruments employed in aural surgery and by parts of the ear, such as the ossicles and the labyrinth.

#### PHOTOTHERAPY WITH THE FOVEAU-TROUVÉ APPARATUS.

THE value of Finsen's method of phototherapy in skin diseases, particularly in lupus, is now well attested. But the apparatus is costly and the treatment is very tedious. In the *Progrès Médical* of Nov. 2nd Dr. Foveau has described a simpler and much less costly apparatus which, in conjunction with an electrician, M. Trouvé, he has recently invented, and which is used in the St. Louis Hospital, Paris. It apparently gives as good results as Finsen's apparatus, and has the important advantages of greatly diminishing the duration of each sitting and increasing the extent of surface which can be treated. Moreover, it can be fixed anywhere—e.g., in the house of the medical man or in that of the patient. It consists of a parabolic mirror with an incandescent or arc lamp in the focus. The former is joined to a "concentrating cone" which terminates in two quartz plates with a chamber between

<sup>1</sup> Band lxxviii., 1901, p. 565.

them. In this chamber and through the whole apparatus cold water circulates which, as in Finsen's apparatus, absorbs the heat rays. But instead of using a special instrument for compressing the skin to render it exsanguine, the quartz plate, which is of variable size and surface, is pressed directly on the part to be treated. Comparing the Finsen with the Foveau-Trouvé apparatus Dr. Foveau claims the following advantages: cost of installation of the former 4000 francs, of the latter from 200 to 300 francs; expense of each sitting with the former 15 francs, with the latter 0.23 franc; duration of sittings with the former 75 minutes, with the latter 10 minutes; surface treated with the former one square centimetre, with the latter from one to five square centimetres, as required.

#### SMALL-POX IN LONDON.

As was expected with the advent of cold weather, the cases of small-pox show no decrease. On Saturday, Nov. 30th, there were 30 fresh cases notified and removed. On Sunday, Dec. 1st, the number was 16; on Monday, the 2nd, there were 31 fresh cases; on Tuesday, the 3rd, there were 28 fresh cases; and on Wednesday, the 4th, there were 33 fresh cases.

THE report of the Commission appointed by the Government in August, 1900, to inquire into "the nature, causation, pathology, and modes of prevention (more particularly as affecting armies in the field) of dysentery and its connexion, if any, with enteric fever," has been handed in to the Secretary of State for War and we may expect shortly to be able to comment upon it. Colonel Bruce, R.A.M.C., is responsible for the laboratory part of the investigation, while the subdivisions of the report dealing with the sanitary and preventive measures to be taken are from the pen of Professor W. J. R. Simpson, who, with Colonel Lane Nottter, R.A.M.C., made up the Commission.

THE Fellows and Associates of the Institute of Chemistry assembled under Professor J. Millar-Thomson, F.R.S., the President, for their annual dinner on Wednesday, Dec. 4th. The President was supported by a distinguished company. The Minister of Agriculture, in an able speech, emphasised the importance of scientific chemistry to agriculture. The President gave a general report on the condition of the institute, pointing to the advance that that body was steadily making in the high standard of its examinations.

THE governors of the Macclesfield Infirmary have invited the honorary consultant physicians and surgeons of the institution to a private conference upon the situation caused by the election of a female junior house surgeon in opposition to the wishes of the medical staff. The medical staff expect, and so do we, that their professional colleagues will find that they have taken the right course in sending in their resignations to a governing body which disregarded their views in a pointed manner upon professional subjects.

SURGEON-GENERAL W. TAYLOR, C.B., having arrived in this country from India presumably in order to fill the appointment of Director-General of the Army Medical Service, may be expected to take up the work of his post at once. We heartily congratulate Surgeon-General Taylor on his promotion and tender him our best wishes in the successful discharge of the new duties he is undertaking.

WE received with much surprise and regret the news from India of the death of Surgeon-General Robert Harvey, C.B., D.S.O., Director-General of the Indian Medical Service. Surgeon-General Harvey had only left England three weeks

or so before his death, which must have occurred immediately upon his arrival in India. We shall publish an account of his career next week.

THE secretary of the Sanitary Institute gives notice that it has been decided not to hold the sessional meeting on Dec. 11th as given in the calendar in the supplement to the journal of the institute.

MR. THOMAS BRYANT will open the new out-patient department of the Bolingbroke Hospital on Wednesday next, Dec. 11th, at 3 P.M.

DR. WALTER ESSEX WYNTER has been elected physician to the Middlesex Hospital.

## Pharmacological Notes.

#### LACHNANTHES.

THIS American plant, known colloquially as red-root or spirit-weed, is derived botanically from *Lachnanthes tinctoria*, Elliott; but so far does not appear to be well known to British pharmacologists. We are therefore dependent for our information upon American sources. According to King's "Dispensatory," recently published, the plant is a native of the United States. Its reputation was built upon the perennial root which was first introduced into practice by the homoeopathic school. It had long been used, according to Dr. Byron, by the Florida Indians for its stimulant properties; thus they are said to have resorted to its use for the production of brilliancy of eye, flushed face, bold appearance, and eloquence of speech. After these effects have passed away the patient is said to become stupid and irritable. The chemistry of this drug does not seem to have been worked out. The position of the plant in the natural system of classification of Bentham and Hooker is under the monocotyledones, near the natural order Iridaceæ. It belongs to the family Hamendoraceæ, and is therefore far removed from belladonna, which it is said to resemble in physiological action. The pharmacy of *lachnanthes* is quite simple. A 1 in 10 proof-spirit tincture of the plant is prescribed in from 2-minim to 10-minim doses. Thus one fluid drachm of the tincture in four fluid ounces of water forms a mixture of which one teaspoonful may be given every three or four hours. With regard to its therapeutic and physiological effects the drug has been recommended for checking the cough of consumptive patients, for the treatment of pneumonia, in nervous fever and typhus fever, for some diseases of the brain, in the delirium of fever, and in morbid conditions of the brain and nervous system, especially when in these several maladies redness of the cheeks and brilliancy of the eyes are accompanying symptoms. It is said to be efficient in cases of wry-neck, hoarseness, laryngeal cough, tinnitus aurium, and nervous headache. Large doses produce dilatation of the pupils, impaired vision, dizziness, and other unpleasant symptoms somewhat similar to those produced by belladonna. Its action, however, would appear to be uncertain, and with regard to pulmonary affections it is probably an expectorant, with less power than *ipecacuanha*.

#### VIOLET LEAVES.

The leaves of the well-known violet plant are being vaunted as a local application for cancer in the form of an infusion of the fresh leaves. The plant is by no means new to medicine, having been employed as a domestic remedy in ancient Rome. In the United States of America, where it has probably received more attention than in this country, the whole plant is taken or else a part, e.g., the green herb, the root, the seeds, the leaves, or the flowers deprived of their calyx. As to the botanical origin, either *Viola odorata*, Linné, the sweet violet, or any other species, may be given for medicinal use. As to its chemistry, the whole plant of *Viola odorata* contains an acrid poisonous principle which was named "violine" by its discoverer, Boullay, in 1828. This substance resembles emetine in its action, is a white or pale yellow powder of an acrid taste, more soluble in water than is emetine, and soluble in alcohol, but insoluble in ether and forming insoluble compounds with tannins. This principle is found in other species of *viola*, especially in the

stemless variety, but not in the pansy (*Viola tricolor*). The root contains starch, a yellow colouring matter, gum, and traces of volatile oil. The flowers contain a blue colouring matter which is turned green by alkalis. The odoriferous principle has not been definitely established, nor is it known whether it is identical with the synthetical violet perfume or with that obtained from orris-root. The violet odour of orris-root was shown by Tiemann and Krüger (1893) to be due to a ketone (irone) and it is probable that the same substance causes the natural odour of the violet. Irone, and an allied substance, ionone, are both injurious in their effects on the animal organism when taken internally, as shown by Professor F. von Mering's experiments upon himself and upon dogs. In view of a recent discussion as to the harmful effects of violet perfume on the voice these notes are of interest. K. Mandelin found that the leaves of the violet contained a substance which yielded salicylic acid after boiling.<sup>1</sup> He found a little of the free acid in the rhizome. With regard to pharmacy, the herb and the root are said to yield their active principles to water. There is an idea prevalent that the plant should be used in the fresh state as drying destroys the active principles. The taste of the flowers is sweet and mucilaginous; that of the rhizome is bitter, mucilaginous, and subacid. The flowers of *Viola odorata* are used in the French Codex in preparing a syrup thus: fresh deep-blue flowers, minus calyx, are infused with twice their weight of boiling water, and then to every 21 parts of infusion are added 38 parts of sugar to form a syrup. If the whole plant is employed for medicinal purposes it should be gathered as soon as the flowers have being expanded, each flower being deprived of its calyx and, according to King's "Dispensatory," from which we have derived much of our information, dried. As to the dose, of the flowers and seeds, as a laxative, from three to four drachms rubbed with sugar and water, presumably into a confection, and of the root from one-half to one drachm as an emeto-cathartic. This is uncertain in its action. The root is administered in from 8-grain to 10-grain doses as a tonic and in from 25-grain to 30-grain doses as a purgative, while from 40 to 60 grains constitute an emetic dose. The root, leaves, and seeds are emetic in the larger doses. P. L. Simmonds states that the whole plant of *Viola odorata* is largely sold in the bazaars in Bengal for making an infusion as a diaphoretic in fevers and that large doses nauseate and produce vomiting. It is not known whether the odorous emanations from the flowers are poisonous, but they have been known to produce giddiness and faintness. The seeds have been recommended in uric acid gravel, and, in conjunction with *Corydalis formosa*, in the treatment of syphilis; also in pectoral, nephritic, and cutaneous affections, especially in *crusta lactea*. Professor Scudder states that the plant stimulates waste and secretion, relieves nervous irritation, and improves nutrition. Further information about this drug is wanted.

#### POISONING BY BELLADONNA PLASTER.

Dr. W. Makeig Jones<sup>2</sup> has drawn attention to a case of poisoning by belladonna plaster which requires explanation. The patient had removed the first plaster from the costal region and applied a second; after 12 hours severe symptoms of belladonna poisoning were experienced. The skin beneath the plaster was found to be swollen and covered with a rash. Though the patient speedily recovered under treatment the toxic effects remained for some days. The fact that the symptoms did not appear until the application of the second plaster eliminates the factor of idiosyncrasy. The suggestion of Dr. Jones that the plaster may have been fortified by the addition of alkaloid after manufacture is based on the fact that the original strength of the plaster should be 0.5 per cent. of alkaloid, whereas the second plaster was found, on removal, to contain 0.44 per cent., the loss representing a quantity too small to produce the effects observed. This suggestion leads to the natural inquiry, what is the amount of alkaloid that would normally be absorbed through the skin in a given time? Until this question receives a satisfactory answer it is scarcely fair to lay the blame on the plaster, nor is this one case sufficient to bring the belladonna plaster into disrepute.

#### THE VALUE OF ETHER IN OINTMENTS.

H. Wyatt<sup>3</sup> has called attention to the use of ether in ointments—a practice recommended by Sir James Sawyer in

cases where absorption is required in applications to the skin. The ether, in the proportion, say, of two fluid drachms to six drachms of ointment, softens or dissolves the sebaceous secretions in the skin, thereby enabling the latter to take up the medicament.

## THE LONDON LICENTIATES AND MEMBERS SOCIETY.

A MEETING of the London Licentiates and Members Society was held at the Wimpole Hotel, London, on Nov. 29th, Dr. FREDERICK J. SMITH being in the chair.

Dr. SMITH said that there were three schemes arising out of the minutes of the preliminary meeting of the society which were on the agenda for the present meeting. The first was to petition the Royal College of Physicians of London to rescind By-law 177, which by-law was to the effect that the Royal College did not grant to its Licentiates any power to call themselves "Doctor." The second was to petition the Royal Colleges of Physicians of London and Surgeons of England to obtain power to grant the degree of M.D. and the third was to petition the two Royal Colleges to approach the London University and prevail upon that body to admit Licentiates and Members of the Colleges to the final examination for the M.D. of that university. The last suggestion seemed to him to fulfil every reasonable expectation of the Licentiates, and to promise to put the Licentiates at once into a position from which no one could possibly disturb them. There was a statute of the University which distinctly gave power to the new university to "associate" itself with the existing Colleges in London, so as to promote in any way that they might think right the advancement of medical education, including examination. He thought that Licentiates should be admitted to the final examination of the new university by arrangement with that university.

Mr. F. W. COLLINGWOOD favoured the third suggestion and referred to the grave disabilities which the double-qualification men of London laboured under. It was stated in THE LANCET of Nov. 23rd that it was the universal opinion of the leading London physicians and surgeons in 1886 that the students in London were under grave disabilities, and that when the Colleges by a unanimous vote asked that they should grant degrees it was met by the Crown with a distinct negative, and he thought the decision must have been made under some misconception of the facts.

Mr. DOUGLAS did not agree that there should be any further examination for the title "Doctor."

Dr. SMITH said it would not be practicable for any corporate body to give the M.D.

Mr. E. R. DAWSON maintained that the double-qualification men passed a better examination than that for the M.B. of Cambridge.

Dr. W. G. DICKINSON pointed out that London corporations, including the London University, were fee-getting institutions, and no degree would be obtained without paying more money.

Mr. A. E. JOSCELYNE said that he thought it would be very much better to have an examination.

Mr. ARTHUR GREENWOOD supported the third proposition.

Dr. SMITH alluded to the fact that the London medical schools were now fighting for their existence—a fact which the authorities and the teaching staffs recognised. The proposals would not be less likely to succeed on that account, for it would be felt that the existence of the London schools was at stake. Provincial students had increased by 800 while those in London schools had decreased.

Mr. P. ROSE hoped that the standard of the London M.D. would not be lowered.

Dr. SMITH said that the examinations of the new University of London were still in the crucible, and he hoped that the representations which would be made might have influence in determining the standards.

Mr. COLLINGWOOD said that the new university should lay itself out for a more liberal distribution of degrees, seeing that it was the only university for a population of over 5,000,000 people.

Dr. SMITH suggested that the proposed petition might mention a thesis as a qualification for a degree.

<sup>1</sup> American Journal of Pharmacy, 1882, p. 11.

<sup>2</sup> Quarterly Medical Journal, vol. ix., p. 29.

<sup>3</sup> Pharmaceutical Journal, 1900, vol. i., p. 129.

Mr. JOSCELYNE proposed, and Mr. F. C. LANGFORD seconded, the following motion:—

That a petition be sent to the College of Physicians and College of Surgeons requesting them to approach the London University and prevail upon that body to admit Licentiates and Members of the Colleges to the final examination for the M.D. degree of that university.

This was carried unanimously.

A committee composed as follows, with power to add to the number, was appointed to frame the petition and forward the interests of the society:—Dr. F. J. Smith, Mr. A. E. Joscelyne, Mr. P. Rose, Mr. E. R. Dawson, Mr. F. C. Langford, Mr. F. W. Collingwood, Mr. W. E. Morgan, and Mr. E. H. Tipper.

Dr. SMITH was then unanimously elected President of the society, and in acknowledging the compliment he said that he was ready to do all in his power to further the movement.

## Looking Back.

FROM

THE LANCET, SUNDAY, DEC. 7, 1823.

*Various Games adapted for the Members of the Medical Profession.*

*To the Editor of The Lancet.*

MR. EDITOR,—I admire the discretion which has induced you to introduce into your well conducted publication, lessons in chess for the purpose of insinuating under the guise of that game the maxims of the therapeutic art—

—“ut pueris olim dant crustula blandi  
Doctores elementa velint ut discere prima.”

It is well known that Podalirius and Machaon played at chess at the siege of Troy with Palamedes the inventor of it. I have to suggest, however, that you should not confine yourself to chess alone, especially as it is a game of skill merely, but should extend your amusing and useful labours to other games, which bear a stricter analogy to the *Ars Medica*.

I need hardly mention *Draughts* for their extensive utility, they are certainly among the *prima elementa* of the general practitioner.

*Push-pin* manifestly tends to increase the *tactus cruditus*.

*Dominoes* inculcate the necessity of the juxta-position of similar parts, and give warning of the evil consequences of a solution of continuity. They form an evidently sanative game.

*Nine-pins* and *bowls*, from their very forms, like two ounce phials and pills, are evidently intended to do honour to medicine.

The various games of *cards*, however, seem particularly designed for the use of medical practitioners, and may be called the microcosm of medicine. In *Whist* there is the necessity of *cutting*, which involves much surgical knowledge; and *shuffling*, which is useful in all branches of the profession. The good player will rely more on *tricks* than on *honours*. The propriety of never omitting to call, is inculcated on the physician, while the maxim of returning your partner's lead, adumbrates that good understanding between *Doctor* and *Apothecary*, which may be termed the *Holy Alliance of London practice*. Some practitioners have played well at *matrimony*. *Pope Joan* conveys a curious historical fact, and may thus increase the general knowledge of the student.

There is a game mentioned by Dr. Rabelais, under the name of *Flux*, which I am ignorant of; but I doubt not, if it were investigated by your learned collaborators, it would throw light on the nature of cathartics. The same astute physician mentions the game of *Pille*; but the word, with him, (in French) is not taken in the sense of *pilula*, but is the imperative of *piller*, to *rob*, *strip*, or *pillage*. In English, it might be called *bill*, and refers to the mode of making a *charge*.

*Blind Hookey*, the *cœca rapacitas* of the Latins, is a game venerable for its antiquity, and truly medical.

*Put the fool to bed*, is a game little used; but it conveys

an useful instruction as to the mode of dealing with a patient. *Ned quid plura de hoc joco adlam!*

*Kalendis Decembris.*

H. U. M. D.

## ASYLUM REPORTS.

*Suffolk County Asylum (Annual Report for 1900).* The average number of patients resident during the year was 591 and comprised 252 males and 339 females. During the year 178 patients were admitted, and of these 140 viz., 75 males and 65 females—were first admissions. Dr. James R. Whitwell, the medical superintendent, states in his report that as regards the numbers resident in the asylum the figures tend to show “an increase on the female side which will necessitate early boarding-out unless some other form of relief to overcrowding occur shortly.” The bodily condition of patients on admission was not as a rule satisfactory. A considerable number of patients were brought to the asylum in an “enfeebled and exhausted condition as a result of attempted treatment at home which generally results in the patient being so physically reduced as to be unable to stand the severe strain of an acute mental disease.” Dr. Whitwell adds that there is every reason to believe that many of these patients, now apt to die or to lapse into chronic and incurable insanity, would have recovered if brought earlier under treatment. Hereditary tendency to insanity was ascertainable in 36 per cent. of the patients admitted, and there was every reason to believe that this figure was much smaller than the actual facts would show if these could be ascertained. It was difficult to obtain exact information of the rôle of alcohol as a factor, though this could be traced in 14 per cent. of the cases. Moral and emotional conditions when analysed carefully appeared to form no very important element in the production of insanity except as an exciting factor. The death-rate for the year has been rather higher than usual, the total number of deaths being 82—viz., 49 males and 33 females, or 13·8 per cent. of the average number resident. Of the deaths one was due to pernicious anæmia, two each were due to cancer and epilepsy, three were due to influenza, five to pneumonia, eight to phthisis and other forms of tuberculosis, 10 to cardiac disease, 13 to general paralysis of the insane, 14 to senile decay, and the rest to other causes. During the year 74 patients were discharged as recovered, comprising 39 males and 35 females, or 12·5 per cent. of the average number resident. The deaths from general paralysis seem to have increased steadily during the last four years. Thus per 1000 resident patients the mortality from general paralysis was 2·6 in 1897, 5·1 in 1898, 10·0 in 1899, and 16·8 in 1900. The casualties during the year have been few and slight, a fact which reflects credit on the care and vigilance exercised by the staff among the patients. Continual effort has been made to keep as large a number of patients as possible usefully employed. Of the male patients 72 per cent., and of the females 88 per cent., were thus employed, which compares favourably with previous records and with other institutions. The general health of the patients has been good throughout the year. Diphtheria was contracted by a laundry-maid and to prevent the possibility of infection being carried from the patient by the asylum medical staff she was attended by a local practitioner. A difficulty such as this, adds Dr. Whitwell, “must continue to exist until the new isolation hospital is ready for occupation.” The water and gas supplies have been maintained in good condition and the new sewage works have proved satisfactory. The cost of maintenance per patient has risen somewhat during the year. The Commissioners in Lunacy state in their report that the best order prevailed in the wards, that the surroundings were cheerful and pleasant, and that the medical case-books were well kept.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6504 births and 4459 deaths were registered during the week ending Nov. 30th. The annual rate of mortality in these towns, which had been 19·7 and 19·4 per 1000 in the two preceding weeks, rose again last week to 20·3 per 1000. In London the death-rate was equal to 20·5 per 1000, while it averaged

20.2 in the 32 large provincial towns. The lowest death-rates in these towns were 9.9 in Huddersfield, 12.1 in Wolverhampton, 12.3 in Derby, and 13.0 in Plymouth; the highest rates were 24.4 in Preston, 24.6 in Manchester, 25.8 in Birkenhead, 26.3 in Birmingham, and 28.5 in Oldham. The 4677 deaths in these towns last week included 434 which were referred to the principal zymotic diseases, against 427 and 443 in the two preceding weeks; of these 434 deaths 143 resulted from measles, 79 from diphtheria, 61 from scarlet fever, 44 from "fever" (principally enteric), 44 from whooping-cough, 43 from diarrhoeal diseases, and 21 from small-pox. No death from any of these diseases occurred last week in Gateshead; in the other towns they caused the lowest death-rates in Brighton, Plymouth, Burnley, Bradford, and Hull, and the highest rates in West Ham, Norwich, Oldham, and Blackburn. The greatest proportional mortality from measles was recorded in Norwich, Manchester, Oldham, Blackburn, Huddersfield, Halifax, and Sheffield; from scarlet fever in Liverpool and in Salford; from whooping-cough in Leicester and in Swansea; and from diarrhoeal diseases in Derby. The mortality from "fever" showed no marked excess in any of the large towns. The 79 deaths from diphtheria in these towns included 40 in London, eight in West Ham, four in Portsmouth, three in Cardiff, three in Leicester, three in Liverpool, and three in Sheffield. Twenty-one fatal cases of small-pox were registered in London, but not one in any of the 32 large provincial towns. There were 427 cases of small-pox under treatment in the Metropolitan Asylums hospitals on Saturday, Nov. 30th, against 297, 368, and 396 at the end of the three preceding weeks; 123 new cases were admitted during the week, against 62, 113, and 141 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 3331, 3353, and 3336 on the three preceding Saturdays, had further decreased to 3278 at the end of last week; 320 new cases were admitted during the week, against 380, 376, and 379 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 445, 477, and 582 in the three preceding weeks, declined again to 534 last week, but were 105 above the corrected average. The causes of 35, or 0.8 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Nottingham, Salford, Bradford, Leeds, Sheffield, Hull, and in 14 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Blackburn, and Halifax.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19.9 and 21.3 per 1000 in the two preceding weeks, further rose to 22.2 per 1000 during the week ending Nov. 30th, and exceeded by 1.9 per 1000 the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 17.5 in Greenock and 18.0 in Dundee to 24.1 in Glasgow and 28.0 in Paisley. The 706 deaths in these towns included 29 which were referred to measles, 21 to diarrhoea, nine to "fever," eight to diphtheria, seven to whooping-cough, and three to scarlet fever. In all, 77 deaths resulted from these principal zymotic diseases last week, against 72 and 85 in the two preceding weeks. These 77 deaths were equal to an annual rate of 2.4 per 1000, which was 0.5 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of measles, which had been 18 and 29 in the two preceding weeks, were again 29 last week, and included 23 in Glasgow and four in Dundee. The deaths from diarrhoea, which had been 23, 22, and 30 in the three preceding weeks, declined again last week to 21, of which 11 were registered in Glasgow, four in Aberdeen, and three in Dundee. The fatal cases of "fever," which had been 16, 12, and eight in the three preceding weeks, rose again to nine last week and included six in Glasgow and two in Paisley. The deaths from diphtheria, which had been nine and six in the two preceding weeks, increased last week to eight, of which five occurred in Glasgow. The fatal cases of whooping-cough, which had been three and six in the three preceding weeks, further rose last week to seven, and were all recorded in Glasgow. The deaths from scarlet fever, which had been eight and six in the two preceding weeks, further declined

to three last week and included two in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 190 and 177 in the two preceding weeks, rose again last week to 186, and were 26 in excess of the number in the corresponding period of last year. The causes of 26, or nearly 4 per cent., of the deaths in these eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23.9 and 23.8 per 1000 in the two preceding weeks, further declined to 18.2 per 1000 during the week ending Nov. 30th. During the past four weeks the death-rate has averaged 22.4 per 1000, the rates during the same period being 20.6 in London, and 18.6 in Edinburgh. The 135 deaths belonging to Dublin registered during the week under notice, showed a decline of 36 from the number in the preceding week, and included seven which were referred to the principal zymotic diseases, against five, six, and nine in the three preceding weeks; of these, four resulted from diarrhoea, one from scarlet fever, one from whooping-cough, and one from "fever." These seven deaths were equal to an annual rate of 1.0 per 1000, the zymotic death-rates last week being 1.9 in London, and 0.5 in Edinburgh. The four fatal cases of diarrhoea showed a slight increase, the number in each of the three preceding weeks having been two. The 135 deaths in Dublin last week included 24 of children under one year of age and 42 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons were slightly below the number in the preceding week. Seven inquest cases and three deaths from violence were registered, and 40, or nearly one-third, of the deaths occurred in public institutions. The causes of seven, or more than 5 per cent., of the deaths in Dublin last week were not certified.

#### THE SERVICES.

##### ROYAL NAVY MEDICAL SERVICE.

STAFF SURGEON A. H. L. COX has been appointed to the *Rainbow*.

##### ROYAL ARMY MEDICAL CORPS.

Major R. N. Buist is holding himself in readiness to proceed to India for a tour of service, embarking on the transport *Plussy* about Dec. 10th. Surgeon-Lieutenant Mowbray Taylor, Volunteer Medical Staff Corps, is granted the temporary rank of Lieutenant whilst serving in South Africa. Major L. Haywood takes over medical charge of the station hospital, &c., at Gosport, from Major J. H. Nicholas, A.M.R. Lieutenant-Colonel D. Bruce is detailed for temporary duty in the War Office. Lieutenant-Colonel F. T. Wilkinson is held in readiness for South Africa.

Surgeon-General A. F. Preston, Acting Director-General of the Army Medical Service, is to resume the post of Principal Medical Officer on the Staff of the Duke of Connaught in Ireland on being relieved at the War Office by Surgeon-General W. Taylor.

##### VOLUNTEER CORPS.

*Artillery*: The Highland: Surgeon-Lieutenant R. G. Dick resigns his commission. *Rifle*: 2nd Volunteer Battalion the Welsh Regiment: Lieutenant Thomas Morgan Jones Powell resigns his commission and is appointed Surgeon-Lieutenant. 2nd Volunteer Battalion the Prince of Wales's (North Staffordshire Regiment): Brigade-Surgeon-Lieutenant-Colonel H. M. Morgan retires under paragraph 111 Volunteer Regulations, with permission to retain his rank and to wear the uniform of the battalion on retirement, vacating at the same time his appointment as Senior Medical Officer to the Staffordshire Volunteer Infantry Brigade. 4th (Donside Highland) Volunteer Battalion the Gordon Highlanders: Surgeon-Captain. A. Nicol to be Surgeon-Major.

##### MENTIONED IN DESPATCHES.

In despatches recently received from General Lord Kitchener to the Secretary of State for War the following names are mentioned:—Major T. G. Lavie, R.A.M.C., and Civil Surgeon W. S. Kidd who, though wounded early in the attack on Colonel Kekewich's camp at Moedwill on Sept. 30th continued at their duties many hours.

Staff Serjeant E. Fells, R.A.M.C., on the same occasion, for gallantry in looking for and attending to the wounded under heavy fire at Rhenosterfontein, Western Transvaal, Sept. 5th, 1901.

In a supplementary despatch from Major A. Chapman, who commanded troops at the attack on Fort Itala on Sept. 26th, Lieutenant T. E. Fielding, R.A.M.C., is mentioned as having been captured by the Boers (subsequently released) while attending to the wounded. The following note is attached to the despatch:—"Lieutenant Fielding, R.A.M.C., reports that nothing could exceed the kindness of General Chris. Botha to the wounded; it was only his presence and influence which restrained his burghers from robbing the wounded, and on several occasions he struck burghers for trying to do so."

#### SOUTH AFRICAN WAR NOTES.

A correspondent to the *Times* of Dec. 3rd sends a letter from a young officer in South Africa which deals with Colonel Benson's last fight. Referring to the action of Brakenlaage on Oct. 31st, the letter says: "All that night we were intrenching ourselves and bringing in our wounded, and to make matters worse it rained for three hours and our wounded had to be out in all the wet and cold. We did not get all our wounded in until after noon the following day and our R.A.M.C. doctors did work well; they were at it for 48 hours hard without a rest attending to the wounded. I must say the R.A.M.C. played the game, nothing could have been done more by them."

Captain J. Grech, R.A.M.C., and Civil Surgeons A. Cameron, R. Corfe, and R. V. Milnthorpe are returning to England in the steamship *Nubia*, which left Natal for England on Nov. 26th.

Major F. A. Saw, R.A.M.C., Captain C. O'C. Hodgins, R.A.M.C., and Civil Surgeons Summers, Rutherford, Goldsmith, Ackland, Hathaway, and Graham left Cape Town in the s.s. *Dilwara* on Nov. 28th.

Civil Surgeon F. F. McCabe, R.A.M.C., is reported missing, presumably prisoner at Doornkop (Nov. 28th.)

#### THE FOOT-SOLDIER'S BOOT.

The most important item of an infantry soldier's accoutrement is his foot-covering. The nation which gives its soldiers the best boots, said Marshal Saxe, has an immense advantage over its enemies, that of keeping the men always available for marching. Napoleon, also, attached the greatest importance to the foot-gear of his magnificent infantry. Each man carried two pairs of shoes in his knapsack in addition to those he was wearing, and, moreover, possessed several more pairs which were carried in the baggage-wagons. Writing to Prince Eugene the great Emperor said: "You know that in war the supply of shoes is always insufficient." In this connexion the famous dictum of Napoleon's conqueror may be mentioned. "The first requirement of a foot-soldier," said the Iron Duke to an inquirer, "is a good pair of boots, the second is an extra pair, and the third a pair of spare soles." A foot-soldier without boots is as useless in a campaign as a horse-soldier without a horse. But in each case it is not sufficient to supply a man with a good article; he must also know, or be taught, how to treat it. In a recent paper,<sup>1</sup> Surgeon-Major Berthier of the French army gives a description of what would seem to be an almost ideal boot for the fantastically named *fantassin*, or French foot-soldier, and at the same time lays down apparently unexceptionable laws regarding the *entretien* of his invention. Surgeon-Major Berthier's *brodequin haut* is eight inches in height without reckoning the heel, and is closed in front by two flaps which are laced in a novel manner. Below on either side there are four eyelets, which should be tightly drawn together over the instep, while above there are five pairs of hooks and two eyelets which may be approximated tightly or loosely according to circumstances. Apparently two separate laces are required for each boot. The inventor does not believe in Meyer, whose soles and uppers are neither of them "rational." He thinks that the time has come to decline to be hypnotised by the Zürich model. Meyer refused to accept the plan now adopted by shoemakers of gauging the shape of their clients' feet on sheets of paper, but it is difficult to see a rational reason for the refusal. Meyer wants to manipulate the great toe on theoretical lines, but, says

Surgeon-Major Berthier, we know now that the trifling abduction of that digit is *une déviation normale*. A great many points having reference to the foot-covering of soldiers are admirably elucidated in this paper, but the writer is scarcely convincing regarding the *raison d'être* of heels. The heel of the military boot now used in France is 1.20 inches in height. This elevation, according to Surgeon-Major Berthier, "facilitates marching by diminishing the muscular work demanded at each uprising on the toes. At the same time a certain inclination of the trunk forwards is rendered necessary which is favourable to progress, forcing the legs to bend and lengthening the step." The higher the heel the easier to walk would seem to be the corollary of this proposition; but, after all, nature may be trusted to know best. To the writer's final decision no exception can be taken: "When troops are moving men always fall out in great numbers from foot-soreness. It behoves us to search for prophylactic measures to prevent this, seeing that foot-soreness is avoidable."

#### THE FEVER SEASON IN SOUTH AFRICA.

While there is no reason for adopting pessimistic views, or indulging in forebodings as to what is likely to be the medical history of our troops in South Africa during the forthcoming hot season, it is only wise and right to take all practicable precautions against a possible increase of enteric fever. This is a time for increased vigilance in regard to the sanitation and cleanliness of camps, for the provision of good sources of water-supply, and for the sterilisation of that water about which there is any suspicion of contamination. The laying down of rules and regulations is not enough, the regular, systematic, and rigid enforcement and application of them by a sanitary police are likewise necessary. Camps should be kept scrupulously clean and the sites changed from time to time and always on the outbreak of disease, or on there being any evidence of the soil having been fouled. Great care should be used about the disposal and disinfection of excreta—whether solid or fluid—and about the burning of refuse. It may be said that all this is so well known that the publication of it is merely the printing of platitudes, but it does not follow, unfortunately, that such matters are as carefully and well attended to as they might be.

#### DEATHS IN THE SERVICES.

Surgeon-General Robert Harvey, C.B., D.S.O., LL.D., Director-General of the Indian Medical Service, at Bombay, aged 59 years. He entered the service in 1865 and served with the Bhootan expedition in 1865-66 (medal with clasp). He also served with the Lushai expedition in 1871-72 (mentioned in despatches, clasp). He was with the Central India Horse from 1871 to 1875, and was civil surgeon at Simla from 1876 to 1877, when he became Surgeon-Major. He was appointed Sanitary Commissioner of Bengal in 1878, and was promoted to the rank of Brigadier-Surgeon in 1889. He was Principal Medical Officer of both the Miranzai expeditions of 1891 (mentioned in despatches, clasp, and the D.S.O.). He also accompanied the Hazara expedition in 1892 as Principal Medical Officer, being appointed Deputy Surgeon-General. He was Inspector-General of Civil Hospitals, Bengal, 1893-94, and was President of the first Indian Medical Congress, held in 1894. He was promoted Surgeon-Major-General in 1895 and appointed Principal Medical Officer to the Punjab Forces. He was awarded the Jubilee medal in 1897 and made C.B. in 1898. He was appointed Director-General of the Indian Medical Service in the same year.

#### THE SOLDIERS' AND SAILORS' FAMILIES ASSOCIATION.

Her Majesty Queen Alexandra has signed a portrait of herself for presentation to Mr. J. S. Wood, who originated and organised the Great County Sale as a "response to the Princess of Wales' Appeal" on behalf of the Soldiers' and Sailors' Families Association which has resulted in £20,463 being collected for those "left behind." Accompanying the framed portrait was a silver casket containing an address of thanks in a bound volume with the signatures of Princess Frederica of Hanover, the Secretary of State for War, the Commander-in-Chief, Lady Raglan, Lady Fremantle, Lord Arthur Hill, Colonel Gildea and eighty others, representing the stallholders in all counties who had subscribed to this testimonial to Mr. Wood, who has been instrumental in collecting over £200,000 for charity during the past 26 years.

<sup>1</sup> Archives de Médecine et de Pharmacie Militaires, November, 1901, p. 366.

## Correspondence.

"Audi alteram partem."

THE PUBLIC HEALTH AUTHORITIES AND  
THE RESPONSIBILITY OF DIAGNOSIS  
OF INFECTIOUS DISEASES.

To the Editors of THE LANCET.

SIRS,—I beg to inclose for publication a communication addressed by me to the Local Government Board and the reply. According to the Local Government Board it is not the duty of the public health authorities to assist in diagnosis or to take part of the responsibility of diagnosis of infectious disease unless they think it necessary to do so. This, to my mind, is a very unfortunate, though not unexpected, reply to my questions. I need scarcely urge that if the authorities are not in the habit of assisting in diagnosis they will find it very difficult to get the opportunity to do so when panic makes them think it necessary. Up to the present no provision is made, nor is there any indication of any provision being about to be made, for discovering and dealing with what I might call the creator of epidemics—the doubtful case. It is not even notifiable; surely this at least ought to be done.

Indeed, Sirs, it would almost seem as if the public health officials, from the Local Government Board downwards, were anxious not to attack epidemics too thoroughly lest the *raison d'être* of their own existence should vanish. This cannot be so, but still, what are the facts? The doubtful case is the *fons et origo* of probably all epidemics; no stone should be left unturned, no opportunity should be missed to get hold of it, and yet the authorities say, "No, diagnosis is not our duty." They say to the practitioner, "Show us the disease and then we will deal with it," like the sham rat-catcher in the old story, who, having dined gratuitously, says to the innkeeper, "Now trot out your rats and I will kill them." He did not undertake to catch the rats, he only undertook to kill them in exchange for his dinner. I think the position of the public and that of the innkeeper are somewhat similar. Well, it is the fault of the public now if they do not get matters put right. You cannot expect a public department to put themselves right, but they are always ready to veer round and to sail with the wind of public opinion when that opinion expresses a real need.

What I urge is a change of the critical irresponsible attitude of the authorities towards medical practitioners. Let them make it the duty of medical officers of health when possible and if requested by a practitioner to visit all doubtful cases of infectious disease and to share the responsibility of diagnosis. Let the medical practitioners be made to feel how grateful the authorities will be for their assistance in notifying all doubtful cases, how willing they are to place their medical officers at the service of the practitioner, and how ready they are to take the responsibility of the results of diagnosis in all doubtful cases. And, further, let the authorities send a circular to every medical practitioner requesting his aid and offering all I ask in the right spirit. Most of the medical officers of health have had experience of infectious diseases and are ready and willing to do the work when those behind them go at it in a whole-hearted manner. An epidemic of small-pox is to be expected in the spring, everything at present is pointing in that direction. Why should not the authorities do all they can to prevent the festivities of the coming summer being marred, perhaps ruined, by a small-pox scare? What I humbly urge is a most potent prophylactic and will not, I trust, be neglected.

I am, Sirs, yours faithfully,

4, Bryanston-street, Nov. 30th, 1901.

DAVID ROXBURGH.

To the President of the Local Government Board.

SIR,—I venture to ask for an expression of your opinion—as the highest administrative authority on matters relating to public health—(a) as to whether a medical practitioner is entitled to ask the assistance of the medical officer of health in the diagnosis of infectious disease; and (b) whether it is the duty of the medical officer of health to take part of the responsibility of diagnosis when he is asked to do so. I think, Sir, that the subjoined correspondence and press notices in the leading medical journals will, in your opinion justify the view that the matter is one of serious importance and also that it is one which calls for a definite declaration by the Local Government Board for the

guidance of medical practitioners on the one hand and medical officers of health on the other. In considering the matter I would ask you to dismiss from your mind the trivial details (published only to show how the question arose) which called forth the expression of Dr. Wynter Blyth's opinion and deal with the question in its broad aspect as to the ultimate effect of the decision you may see fit to arrive at upon the general public in so far as they are affected by the control the local authorities have over infectious disease. There are a few points I would venture to advance for your consideration—(a) In relation to the question at issue; (b) in relation generally to the duties of a medical officer of health.

Firstly, Dr. Blyth declares, I presume with some authority behind him, "that diagnosis of cases is no part of the duty of a medical officer of health." If this be so, what course, Sir, is open to a medical practitioner when he finds himself face to face with a doubtful case of small-pox? He is not certain, cannot as in this instance be certain, of his diagnosis. The patient comes to him only because her beauty is marred by a few "spots" on her face. She is quite well enough to go about her ordinary work. I contend, Sir, that it is not right in these cases that in a town any man should act solely on his own opinion—the results of error either way are too serious to the patient if he sends her to the small-pox hospital when she has not got small-pox, to the public if he permits her to wander about when she has. In whose interest is it that diagnosis in such a case shall be made as certain as possible? Not the patient's, as this might mean suspension of employment, perhaps loss of a situation. Is it probable that the patient will pay for a consultant when the case is so mild that he scarcely feels ill? I think not. The interested party, I submit, is the public; the public should provide the consultant. What is the position of the medical practitioner? He is only under legal obligation to notify: cases he knows to be small-pox; if he is in doubt he is under no such obligation. If he considers the public and sends a doubtful case to the small-pox hospital it is at considerable risk to himself. If the case turns out not to be small-pox and contracts small-pox in the hospital, he is, I think, open to an action for damages at the instance of the patient. Is it to be expected, then, that he will notify doubtful cases? In the event of such an error his position would be quite different when backed by the opinion of the medical officer of health. If Dr. Blyth's position is correct he cannot refer the matter to the medical officer of health because "diagnosis is no part of his duty." The only course he can adopt—and as a matter of fact does adopt—is to leave these doubtful cases unnotified to wander about and disseminate the disease.

Secondly, in relation generally to the duties of a medical officer of health it may be urged that if the medical officer of health is to assist in diagnosis the additional work will materially alter his duties. I would here point out that both the *British Medical Journal* and THE LANCET say that he cannot act as a consultant for reasons which, in so far as they are stated, seem to me unsound. But, Sir, in considering his duties I would ask you to reflect upon how these duties have changed within the last 20 years or so. Statistics are now in the hands of a trained clerk, water and drainage are the domain of the engineer; sanitary matters in relation to dwellings existing or to be built are now so well understood that it must only be occasionally that the surveyor or sanitary inspector requires the support of the medical officer; foods and drugs are the realm of the chemist or the specially trained inspector. These and other duties, although always within the range of the activity of a medical officer of health, are in practice passing more and more into the hands of others and it always must be so. Such matters, while bulking large in the accomplishments of a medical officer of health, must in actual practice gradually demand less and less of his time. In the sphere of infectious disease, its diagnosis and prevention we find, I most humbly submit, new—if they be new—duties and responsibilities which a medical officer of health can neither evade nor relegate to others (except medical deputies). To my mind, of all his duties as they exist to-day the diagnosis and isolation of cases of infectious disease are the most important and the most urgent.

The numbers of "doubtful" cases will always be few and would never seriously interfere with his other duties (even if they did I fail to see how in the interests of the community he could be better employed). They would, however, materially increase in number to the great advantage of the public if medical practitioners were informed that when possible it was the duty of a medical officer of health, it asked to do so, to assist in the diagnosis and take part of the responsibility of the results of diagnosis in all doubtful cases of infectious disorders.

I apologise for the length of this communication, but I feel the matter is of serious importance; that the public health officials are naturally desirous of pushing the responsibility of diagnosis wholly on to the medical practitioner; and that medical practitioners must take the only course open to them—viz., that of leaving "doubtful" cases to wander about unnotified to the detriment and misfortune of the general public. I respectfully ask your permission to publish your reply to my questions.

I am, Sir, your obedient servant,

4, Bryanston-street, Oct 16th, 1901.

DAVID ROXBURGH.

Local Government Board, Whitehall, S.W.,  
9th November, 1901.

SIR,—I am directed by the Local Government Board to advert to your letter of the 16th ultimo and to state that they are not prepared to say generally that it is the duty of a medical officer of health to visit a doubtful case of infectious disease whenever he may be requested to do so by the medical practitioner in attendance with a view to assisting him in the diagnosis. The responsibility for the diagnosis as regards the duty of notifying must rest with the practitioner in attendance on the case, but the Board are advised that cases not unfrequently occur in which for the due carrying out of the medical officer of health's prescribed duties under Sections (1), (2), (4), and (6) of Article 18 of the Board's General Order of the 8th December, 1891, a consultation between the medical officer of health and the medical practitioner in attendance is desirable. A personal examination of the patient, however, can only be made by the medical officer of health with the consent of the patient or that of the persons in charge of him. The Board believe that medical officers of health are usually found willing to assist medical practitioners in the diagnosis of suspected cases of infectious disease where danger to the public health is threatened, and they are advised that much benefit is likely to result from such co-operation.

I am to add that where the disease which is suspected is one of a

<sup>1</sup> Times, Oct. 8th; THE LANCET and Brit. Med. Jour., Oct. 12th.

highly infectious and dangerous nature it would be open to a medical officer of health, if authorised by his sanitary authority, to call in, with the consent of the patient and of his medical attendant, an expert having special knowledge of the disease in question with a view to arriving definitely and promptly at a decision. The Board are advised that a sanitary authority are empowered to pay a reasonable fee for such expert advice.

Dr. Roxburgh.

I am, Sir, your obedient servant.

JOHN LITHBY, Assistant Secretary.

## THE ETIOLOGY OF ECLAMPSIA: A CRITICISM.

To the Editors of THE LANCET.

SIRS.—The pathology of eclampsia is at the present time so obscure and indefinite that the leading article on this subject in THE LANCET of Nov. 2nd, p. 1206, is of special interest. Our knowledge of the condition has been but little, if at all, increased by some recent discussions. It appears to me that apart from the special difficulty of the question itself a great deal of the confusion is due to the wilful manner in which the etiology of eclampsia has been entangled in misguided speculation. How futile many of these speculations may be seen by a comparison of some of the theories which have been advanced. Whilst one writer concludes that cerebral anæmia is an essential factor another maintains that cerebral hyperæmia is a prominent factor. These and many other "theories"—all differing one from another—resemble each other very closely in their want of scientific basis. In a paper recently read before the Obstetrical Society the writer concluded that eclampsia was probably due to the formation of multiple thrombi, and he was not afraid to go farther and suggest that saline fluid when transfused probably dissolved these thrombi. So far as I was able to gather, these remarkable deductions were based on his observation that in two cases the patients lost less freely than usual and that some difficulty in transfusing was caused by blood-clotting in the cannula. This theory was held to be confirmed by some phenomena occurring after the treatment of aneurysm by gelatin injection and by the cerebral and other hæmorrhages so commonly found in cases of eclampsia post mortem. The suggestion is no better and no worse than many others, yet it illustrates the extraordinary facility of hypothesis on this subject, and it would perhaps be more consonant with scientific method if we were to exclude mere "views" and "theories" and to confine ourselves to observed facts. In the discussion of this paper one of the most serious contributions dealt almost entirely with cases of albuminuria in pregnancy, the question of fetal mortality in albuminuric cases, and with other matters which, however interesting in themselves, appear to be far removed from the subject of eclampsia, and in a discussion of this question serve only to add to the existing confusion. Other speakers were thus attracted to include in their remarks much that would have been more pertinent had the subject been renal disease in pregnancy. I think that this attitude, which appears to be generally adopted, is extremely unfortunate, and it is very unlikely that any real progress in the study of eclampsia will be made until certain necessary limitations are more fully appreciated. Whatever the cause of eclampsia may be, I take it that the word has been invented to describe a certain condition occurring during pregnancy, labour, or in the early puerperium. There can be little doubt in the minds of those who have observed many cases that the condition does deserve a special name—that it is most distinctly *sui generis*. Few diseases have more marked clinical features. Let me briefly indicate a few of the characteristic points as seen in a recent case. The patient was a primigravida, 28 years of age; the pregnancy had been normal and the patient felt well. She was safely delivered of a healthy infant at full term, and when her medical attendant left at 9 A.M. her condition was apparently quite good. About noon she complained of headache, became apathetic, and at 3 P.M. she had a convulsion and became comatose. Her condition was soon typically eclamptic, and at 8.30 she had her last convulsion, there having been altogether 11 convulsions in this period of five and a half hours. The urine was loaded with albumin. The next morning the patient was much better, the urine contained one-fourth albumin on boiling, and on the following day she was practically well, the urine only containing one-twelfth albumin; this entirely disappeared in two days. This, of course, was a light case, but it serves to emphasise

the distinct features of eclampsia—rapid onset with rapid and remarkable recovery in those cases that are not quickly fatal. Unfortunately we have allowed one element—the albuminuria—to take such a prominent position that renal disease is always intruding itself into the discussion and preventing our appreciation of the problem to be solved. I venture to assert that nothing can well be more unlike a real primary nephritis than such a case as the above. Have we ever seen primary renal disease, with the urine loaded with albumin, appear and disappear in the course of a few days, leaving the urine normal and the patient not merely convalescent but, as regards the disorder, completely recovered?

If confusion is to be avoided and the etiology of eclampsia is to be scientifically demonstrated I think that the following limitations must be rigorously observed: (1) the term "eclampsia" when used should not be allowed to include cases of convulsions where renal disease exists or there is reason for suspecting its existence; and (2) the term "eclampsia" should only be allowed to include those cases presenting the cardinal signs and in which the renal affection is but an incident in the attack.

Renal disease with uræmia may, and does, occur in pregnancy, and if we are to consider these eclamptic then there is no good reason for using the term at all. If the renal part of the disorder is really the essential feature of eclampsia it would be better to describe the conditions as a special form of nephritis. On the other hand, for the reasons intimated above, I think that the course of eclampsia and its clinical characters completely exclude its attribution primarily to renal disease. If eclampsia is to be confounded with any other disorder then I suggest that epilepsy is much nearer to it than nephritis. The importance of this differentiation between nephritis and eclampsia can best be appreciated when we recognise the character of some of the fatal cases of "eclampsia." I have seen more than one post-mortem report in a case of "eclampsia" where the necropsy showed the presence of well-marked and chronic nephritis. In such cases I submit that the term "eclampsia" is quite inadmissible. The patients died from uræmia due to nephritis aggravated by pregnancy; but the fact that they were pregnant should surely not lead us to turn "uræmia" into "eclampsia."—I am, Sirs, yours faithfully,

RALPH VINCENT, M.D., B.S. Durh., M.R.C.P. Lond.,

Late Senior Resident Medical Officer, Queen Charlotte's Lying-in Hospital, London.  
Harley-street, W., Nov. 26th, 1901.

## THE PROPHYLAXIS OF DIPHTHERIA.

To the Editors of THE LANCET.

SIRS.—My attention has just been drawn to a review in THE LANCET of Nov. 2nd (p. 1202) of the October number of the *Journal of Hygiene* in which you refer to my article on diphtheria. In this review you represent me as concluding that it is inexpedient to press the isolation of persons who are harbouring in their throats the bacillus of diphtheria but who present no other indications of the disease. As this remark gives, I think, an erroneous impression of my views on the subject you will no doubt permit me to correct it. I do, indeed, very strongly urge the isolation of these people, and this is now being systematically carried out at my suggestion both at Cambridge and at Colchester, where isolation homes entirely for them have been opened. I believe that these healthy people who carry about diphtheria bacilli are largely responsible for the spread of diphtheria and form the links which carry on the infection from one outbreak of the disease to another. But while I am anxious that all these people should be isolated I believe that it can be more thoroughly done by voluntary means than by compulsion, and I am opposed to the notification of such persons as cases of diphtheria. Experience has shown that the voluntary system will work in the towns mentioned, little difficulty having been met in persuading parents to send their children to the isolation home. The difficulty arises in the case of those in whom the bacilli persist for an unusual length of time, and every effort is now being made to find some way of freeing them from their dangerous parasites. The truth is that the local antiseptic treatment of throats which harbour diphtheria bacilli is at present very ineffective, and until some better method is discovered I cannot agree with you

that local antiseptic treatment can take the place of isolation.

I am, Sirs, yours faithfully.

LOUIS COBBETT.

Pathological Laboratory, Cambridge, Nov. 28th, 1901.

## THE DIRECTION OF HAIR ON THE HUMAN ARM.

To the Editors of THE LANCET.

SIRS,—Referring to Dr. Walter Kidd's letter in THE LANCET of Nov. 30th, p. 1531, it may be worthy of record that his theory is not of universal application for the following curious reason. The Mahomedan religion is divided into two principal sects, the Sunnites and the Shiites. The members of these sects can be readily discriminated by the fashion in which the hair grows on their arms, for while on those of the Sunnites the growth turns downward from shoulder to wrist on the anterior side and upwards from wrist to shoulder posteriorly, the hair on Shiite arms presents the contrary appearance on both sides of the arms. This singular divergence is produced by the manner of washing their arms as prescribed by the tenets of the sects respectively. For while Sunnites hold it orthodox to stroke their arms after washing them from shoulder to wrist on front and from wrist to shoulder on the back, the Shiites abhor this practice and stroke their arms in the opposite ways, and hence the two directions in which the hair is seen to grow on the arms of the two sects.—I am, Sirs, yours faithfully,

Ealing, Nov. 30th, 1901. GEORGE SHERRINGTON-MORRIS.

## THE SAFETY OF CHLOROFORM IN MIDWIFERY.

To the Editors of THE LANCET.

SIRS,—May I crave space to add to the reasons given by Sir William Mitchell Banks and Dr. E. Malins—in THE LANCET of Nov. 16th (p. 1323) and 30th (p. 1529), 1901, respectively—for the immunity from death under chloroform in midwifery practice—viz., the age and vigour of the patients, their position on the left side, the reflex influence of the uterine contractions, and the hopefulness of relief from pain—the not unimportant fact of the hypertrophy of the left ventricle which the heart of the pregnant woman undergoes, in obedience to a well-recognised physiological law, to render it equal to the extra work of driving the blood through the foetal circulation!

I am, Sirs, yours faithfully,

Watton, Norfolk, Dec. 2nd, 1901. H. MALLINS, M.B. T.C.D.

## FRIENDLY SOCIETIES AND THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—From the decision of the General Medical Council on Friday last in the Yarmouth case are we to infer that it is unprofessional to act as medical referee to the Liverpool Victoria Legal Friendly Society (which is a life insurance company) because it is associated with the National Medical Aid Company (which is a canvassing society)? or whilst refusing to act as surgeon to the National Medical Aid Company are we allowed to examine cases for the Liverpool Victoria? Other insurance companies have these so-called clubs, and I think that the justice of the matter would be met if practitioners were allowed to examine cases for life insurance but prohibited from acting as medical officer to any society or association which systematically canvasses for patients. The two societies have distinct offices, and whilst repudiating one I see no reason why one should not act for the other.—I am, Sirs, yours faithfully,

EDGAR DU CANE, B.A., M.B. R.U.I.  
Swindon, Dec. 2nd, 1901.

To the Editors of THE LANCET.

SIRS,—With the voting paper received from the General Medical Council is sent a copy of notices. No. III., which deals with association with medical aid societies, is worded as follows: "That the Council strongly disapproves of medical

practitioners associating themselves with medical aid associations which systematically practise canvassing and advertising for the purpose of procuring patients." Surely, if the Council so strongly disapprove, why do they not carry their disapprobation to its logical conclusion and pass a law prohibiting it altogether? There would be no lack of support from the rank and file of the profession. I am amongst the offenders, but why should I give up the £60 per annum, which my appointment brings me in, in order that my opponent should reap the benefit of my endeavour to carry out the wishes of the Council? It is not to be expected and would not be business-like.

I am, Sirs, yours faithfully,

Nov. 29th, 1901.

PRACTITIONER.

## AN ELECTRO-THERAPEUTICAL SOCIETY.

To the Editors of THE LANCET.

SIRS,—May I ask for your kind assistance in making known to the profession that it is intended to form an electrical society for duly qualified medical practitioners who are interested in the application of all forms of electricity to disease. Any practitioners willing to give their support to such a society are requested to send their names to the undersigned.

I am, Sirs, yours faithfully,

CHISHOLM WILLIAMS.

20, Bedford-square, W.C., Dec. 2nd, 1901.

## OUR INCOMPLETE VACCINATION ACT.

To the Editors of THE LANCET.

SIRS,—I have come to the conclusion, after careful study, that the principle which governed the inception of the last Vaccination Act will not be completely applied till successful vaccination certification is put on a parallel basis with infectious disease notification, so that all medical practitioners would become *ipso facto* vaccinators for the public. This would nationalise vaccination and enlist the active assistance of the entire profession. To leave matters on their present footing is no more logical than it would be to exclude small-pox notification itself. I would retain the public vaccinator as a reserve persuasive force, his services to come into operation when the sixth month after birth is reached without due certification. The fee should be paid on a similar but unified system to that now prevailing, distances being calculated from a fixed point in each area only, without reference to the certifiers' residence.

I am, Sirs, yours faithfully,

ARTHUR WADDELL, M.D. Glasg.

Potters Bar, Dec. 2nd, 1901.

## MEDICAL BIBLIOGRAPHY.

To the Editors of THE LANCET.

SIRS,—The discontinuance of *Bibliographia Medica* would be a calamity to all students of medicine. Is it not possible for a combination of the great medical institutions and societies in this and other countries to avert such a disaster which a recent circular says may happen to us?

I am, Sirs, yours faithfully,

L. M. GRIFFITHS.

Bristol, Dec. 2nd, 1901. Hon. Librarian, Bristol Medical Library.

## AMERICAN DENTISTRY.

To the Editors of THE LANCET.

SIRS,—May I call your attention to an article in the November *Review of Reviews* on the above subject? Had it not been for one or two paragraphs I should not have troubled you about such barefaced quackery. Amongst other things it is stated that six medical practitioners were attended in one week at a branch of the American Dental Institute—an institute whose seeming superiority is set forth in no feeble language. Though unprofessional readers may be gulled by such articles it is surprising that even many medical men are quite as easily influenced. "American dentistry" seems to have a great fascination, and though it is obvious that it possesses no claims to superiority over dentistry as practised over here, yet even medical men who ought to know better are lured by the magic expression

"American." We Americans practising in this country hock on the terms "American dentistry," "Teeth on the American system," and such like expressions as advertising lodges. How long will this be allowed?

I am, Sirs, yours faithfully

AMERICAN DENTIST.

## NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

### *The Health of Bombay and the System of Death Registration in India.—Municipal Improvements.—The Incidence of Plague.*

IN the present state of the system of registration of deaths in Bombay it is almost guess-work correctly to apportion the deaths to the different diseases. Phthisis, for example, fluctuates week by week in a most extraordinary fashion and would appear at times to be epidemic. The present death-rate of the city is 53.60 per 1000, the deaths for the past week having been returned at 830. Of this number there were 173 deaths registered as due to plague and 113 as due to phthisis. There is practically no cholera or small-pox. To improve the system of recording deaths it is now proposed to make it the duty of the nearest relative to produce a certificate from a medical man. It is also proposed to establish a certain number of public free dispensaries and for the officers in charge of these to act as registrars. Many of the private charitable dispensaries have promised to coöperate. When it is remembered that for nearly all over India the causes of deaths are just those which the relatives choose to name, and that perhaps not 5 per cent. of the deaths are certified by qualified medical men, it will be understood how worthless most of the statistics are. The only calculable feature in them is that the same errors continue year after year so that for local purposes some sort of comparison can be instituted. When the death is not due to some easily recognisable disease, such as cholera, or small-pox, or phthisis, or dysentery, it is generally put down to fever, so that the return of about 5,000,000 deaths annually from fever is not surprising. The same crude system is in vogue in Calcutta, in Madras, and in other towns. In these supervised places the number of deaths may be fairly correct, whilst the causes remain problematical. In the country districts the total number of deaths is liable to great error.

Calcutta, as I have already reported, is making arrangements to have a constant supply of filtered water, and the drainage of the suburban areas is also receiving attention. The conservancy has considerably improved lately and the streets are much cleaner. The tramway company is proceeding actively with an electric service which is expected to commence with the new year. Madras, on the other hand, seems asleep. There is no scheme afloat for any general improvement. The drainage is bad and the water-supply is suspicious. The roads are as bad as they can be, and the hackney carriages are the "show" of the world. In Bangalore city some attempt has been made to open out the congested parts, and in Ootacamund the catchment areas of the water-supply have been safeguarded.

The general plague figures for India have not been published, but local reports show that the disease is spreading in the Punjab and at Poona. In Calcutta and the Bengal districts there is little change.

Nov. 14th.

## BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

### *Corporation Bill: Sanitary Clauses.*

THE Corporation Bill at present before the Birmingham City Council is causing considerable excitement. A public meeting is to be held to discuss the many proposals set forth, and to certain of them decided opposition is expected. Thus, the laundry clauses enact that the medical officer of

health may by notice require to be furnished with a list of the customers of any person earning a livelihood or deriving gain from the washing or mangling of clothes during the past six weeks. Payment will be made at the rate of 6*d.* for every 25 such names and addresses, but no payment is to exceed 3*s.* The penalty for non-compliance is 40*s.* and a daily penalty not exceeding 20*s.* Another proposal is that when any scholar who attends any school within the city shall be known to be suffering from any infectious disease the principal or person in charge of the school shall forthwith send notice to the medical officer, and shall furnish to him at his request a list of the pupils attending the school and their addresses. For the purposes of this scheme of notification whooping-cough will be included among infectious diseases. No person being the parent or having the care or charge of a child who has been or is suffering from infectious disease shall, after a notice from the medical officer that the child is not to be sent to school, permit such child to attend school without having procured from the medical officer a certificate that there is no risk that such child will communicate his disease to others. The certificate shall be granted free of charge upon application. The clauses in respect to dairies are equally stringent. When it shall be certified to the corporation by the medical officer that the outbreak or spread of infectious disease is in his opinion attributable to the milk supplied by any dairyman the corporation may require such dairyman to furnish them with a list of the names and addresses of all his customers within the city. Another section provides that a list of all the farms, dairies, or places from which the dairyman receives his supply may be demanded by notice. Also every dairyman shall notify to the corporation or to the medical officer all cases of infectious disease among persons engaged in or in connexion with his dairy. The penalties for non-compliance are throughout to be the same as those which I have mentioned under the laundry clauses. They are, in my opinion, calculated to prevent the spread of infectious disease in many directions.

### *The General Hospital and Infectious Cases.*

The prevalence of scarlet fever has led in a number of instances to its introduction into the wards of the General Hospital through the medium of patients' friends. A notice has therefore been issued by the authorities that all visitors shall be prohibited for a time—except in very exceptional and urgent instances. Another difficulty before the Medical Committee is the method of dealing with infectious cases in the out-patient room. It not infrequently happens that an out-patient is found to be suffering from scarlet fever or some infectious disease. The committee feel the necessity of providing isolation in such cases and suggest that some separate room should be provided where such patients can wait until removal is possible.

### *The University Students.*

This has been a week of dinners. On Nov. 26th the annual dinner of the medical students was held under the Presidency of Dr. T. Stacey Wilson. The proceedings were enthusiastic and the meeting was well attended by the students and professors.—The 27th witnessed a meeting somewhat less regular in character, a dinner of the football club, the unforeseen expenses of which are said to be giving cause for thought.—The dental school held a dinner on the 29th at which occasion was taken by Mr. Humphreys to remark upon the good sense of the University in granting a dental degree. The professional status of the dentist, he said, had been raised thereby and Birmingham had set a proud example to other universities in this respect. It was stated that no fewer than 40 applications had been made by men holding good and influential positions requesting to know if the degree could be obtained without going through the curriculum.

### *The Clinical Board and Post-graduate Study.*

Arrangements have been made by the Clinical Board for holding a double series of demonstrations at the General and Queen's Hospitals for the benefit of those practitioners who purpose presenting themselves for the modified examination for the M.B., B.A. Birmingham, next June, and for others who may wish to see some hospital practice. The fee for the double series is five guineas and applications should be made to Mr. W. F. Haslam, 54, Newhall-street.

Dec. 3rd.

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

*Poisoned by Roburite Fumes.*

THERE was a mysterious poisoning case recently at Ince, near Wigan. A man, his wife, and five children were taken to the Wigan Infirmary in a critical condition, owing, it was presumed, to some irritant poison. It was thought at the infirmary, however, that the symptoms were more like those from the inhalation of noxious fumes, an opinion now verified. It appeared that the day before they were seized with illness a neighbour saw the man's wife crushing a brown substance into a small tin, and she explained that she was going to pepper the beds and bedclothing, "as we are nearly worried," and she was going to put some on the floor to kill the cockroaches. As she and her family were so nearly killed it may be presumed that the fleas and cockroaches were slain. The woman admitted that she had "mixed a quantity of roburite with some insect powder and scattered it about the beds and clothing for the purpose of killing the insects." She was at first afraid of stating this, fearing that she had done wrong. A somewhat similar case occurred a few years ago at Huyton.

*The Manchester Cancer Hospital.*

The annual meeting of the Cancer Pavilion and Home, as it has hitherto been called, was held on Nov. 26th. Mr. Alfred Hopkinson, the Principal of the Owens College, presiding. It was resolved, in order to recognise the great services rendered to the institution by the late Chancellor Christie—for without his generous help it could not have been founded—to change the name to "The Christie Hospital." The wards have recently been extended, so that it has been possible to deal with more patients than formerly—viz., 108 in-patients and 100 out-patients, against 88 and 91 in the previous year. Owing to this extension and to the provision of Roentgen ray apparatus which had been purchased at the urgent request of the medical staff the hospital is somewhat in debt, but the fact did not seem to cause any alarm. The medical report stated that the youngest patient admitted was 16 years of age and the oldest 81 years, the average age being 52.1 years. During the year 42 patients who were admitted in a hopeless stage of the disease and who could not be properly treated at home have been given an abode in the home for the remaining period of life. At the request of the chairman Dr. R. B. Wild gave a short account of the Roentgen apparatus. He said that the results had been satisfactory in arresting the disease in some cases that were going from bad to worse. "He thought that in this and other ways some portion of the hospital funds might be used in investigating the causes and possible cures for the scourge of cancer." This suggestion was well received, the chairman saying that he, in common with many of the subscribers, felt strongly that one of the objects of such a hospital was the prosecution of such investigations. "He was gratified to find that the association of the hospital with various institutions such as the Owens College was growing."

*Manchester Housing Scheme.*

The Housing Sub-committee of the Sanitary Committee of the Manchester City Council, have just shown a very sensible spirit. Some time ago plans were adopted for model cottages to be built at Blackley, one of the suburbs, to provide accommodation for some of those who were dispossessed by recent changes. These plans brought strong adverse criticism, one of the points being that the arrangement would condemn many of the cottages to be sunless. New plans have been adopted, in many respects following those of model cottages built at Leek, the chief additions being a bath-room on the ground-floor and behind the kitchen fireplace. This room is to be made available for washing purposes generally. There is also to be a third bedroom. The only fear is that the cottages will be too costly to allow of low rents. The plans have yet, however, to run the gauntlet of the city council and the Local Government Board.

*Hospital Saturday Fund.*

The annual meeting of the Hospital Sunday and Saturday

Fund was held in the Manchester Town Hall yesterday. In 1900 the committee were able to distribute £1000 more than in the previous year, though there were large calls on the public for other purposes, and this year the total of the two funds, £8180, is an increase of £1226 over last year. This increase is gratifying, but, as the chairman of the committee reminded the meeting, Manchester stands very badly as compared with other large towns. There is a proposal to build a convalescent home which will cost at least £10,000, towards which a substantial contribution has been promised and the gift of a site has been offered.

Dec. 4th.

## WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

*Water-supplies.*

IN spite of the rainfall in many parts of South Wales and Monmouthshire being far above the average rainfall in England and Wales, and although there are ample gathering grounds, there are still many populous districts which are very inadequately supplied with potable water. At Newport the supply is not constant even now and is only available between 7 A.M. and 6 P.M. At Abertillery, a mining district in Monmouthshire the population of which has increased from 11,000 in 1891 to 22,000 in 1901, is a reservoir with a storage capacity of 45,000,000 gallons and it is proposed to construct a second reservoir at a cost of £30,000 to hold 50,000,000 gallons.—The supply of water to Llanelli in Carmarthenshire, although not insufficient in quantity, has been recently reported upon by inspectors of the Local Government Board as very unsatisfactory in quality, and the district council is being urged by the board to take steps to provide for the efficient filtration of all water supplied for domestic purposes, and also to reduce as far as possible the sources of pollution in the gathering grounds. The water running into one reservoir is compared by the Board's inspectors to pea-soup, and they state that on the gathering ground there are 38 farms and 55 cottages, many of which drain into ditches and streams which eventually discharge into the reservoir and are gradually filling it up with solid matter.—In the Rhondda and Pontypridd districts, as already stated in THE LANCET of Sept. 21st, 1901, p. 817, the principal supply reaches the consumer so discoloured with peat that he refuses to drink it. In 1899 Professor Percy Frankland reported that this water was inefficiently filtered and quite recently examinations made in the Cardiff Public Health Laboratory show that no improvement has taken place in this respect. A clause in the Pontypridd Waterworks Company's Act provides that the water as it enters the mains shall not only be "pure and wholesome" but that it shall also be "properly filtered." There can, therefore, be no reason for not calling upon the company to carry out its statutory obligation.

*New Poor-law Infirmary at Bristol.*

The wooden huts at Eastville for the accommodation of the sick poor have long been a blot upon the Poor-law administration of Bristol. It is therefore very gratifying to be able to record that on Nov. 29th the board of guardians decided to advertise for tenders for the erection of a new infirmary, the cost of which, exclusive of the site and of furnishing, is estimated at £142,000, a sum which if borrowed and repayed in 30 years means an addition to the rates of the city of one and one-eighth of a penny in the pound. At present there is accommodation at the Stapleton Workhouse for 270 patients and at Eastville for 200, of whom 175 are in the huts. That this accommodation is totally inadequate is shown from the statement made by a member of the board that even now at the beginning of the winter there are 834 sick persons in the two workhouses.

*University College, Cardiff.*

The successor to the late Principal Viriamu Jones is Mr. Ernest Howard Griffiths, M.A., F.R.S., Fellow of Sidney Sussex College, Cambridge. Mr. Griffiths is the son of the late Rev. Henry Griffiths, a former principal of the Brecon Theological College.

*Censure upon Cardiff Workhouse Officials.*

An inquest was held in Cardiff on Nov. 28th and 29th upon

the body of an illegitimate child 19 months old, of rachitic constitution, who had died from pneumonia three days after removal from the workhouse, and who was found post mortem to have a fractured arm of several weeks' standing, an injury which, it is alleged, had not been recognised by the workhouse officials, although the child had been an inmate of the institution since the middle of August. As the coroner's jury expressed the opinion that certain officials deserved censure for their conduct in the matter the board of guardians has resolved to ask the Local Government Board to hold an inquiry into the circumstances of the case.

#### *Royal Albert Hospital, Devonport.*

The thirty-eighth annual meeting of the subscribers of this institution was held on Nov. 28th, under the presidency of Lord St. Levan. The report stated that during the past 12 months 509 in-patients were admitted, compared with 646 in the preceding year; in the casualty department 1484 patients were treated and there were 883 out-patients; 160 women were treated in the lock ward; 146 patients were sent to the Pearn Convalescent Home. The financial statement showed that the income amounted to £5267 and the expenditure to £5400, the gradually accumulating adverse balance being now £600.

Dec. 2nd.

### SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Glasgow Public Health.*

THE Local Government Board for Scotland has intimated to the city authorities that as no death from, or fresh case of, plague has taken place in Glasgow since Nov. 17th the Foreign Office has been informed that the port should now cease to be considered as infected with plague. In proposing the adoption of the minutes of the Health Committee at a recent meeting of the town council the convener drew attention to the fact that there were two cases of small-pox in the hospital. On the same occasion a block plan showing the proposed site of a new small-pox hospital was submitted and received a general approval, the details, however, being remitted for further consideration. The council has approved of a proposal to appoint a qualified assistant in the city bacteriological department for a term of six months, the nomination being in the hands of Dr. R. M. Buchanan and the chairman of the Health Committee. As part of the general scheme of public lectures in connexion with the several corporation departments a lecture on Bacteriology in Relation to Public Health was delivered in St. Andrews Hall on Nov. 30th by the city bacteriologist, Dr. R. M. Buchanan. Special attention was given to the spread of bubonic plague to the western hemisphere and to the influence of rats as agents conveying the infection. The lecture, which was freely illustrated, attracted a considerable audience.

#### *Glasgow Western Infirmary.*

The annual general meeting of contributors to the Glasgow Western Infirmary was held on Nov. 28th, the Hon. the Lord Provost in the chair. The report, which had previously been circulated, showed an increase of 479 in-patients and 1077 out-patients over the figures of the previous year. In the financial statement, though the ordinary income was nearly £1000 in advance of last year's record, there was a deficit of more than £8000 which had had to be met by drawing upon legacies and other sums that ought more properly to have been added to the funds invested for the benefit of this institution. The pressure upon the medical and surgical resources of the hospital continues, and there are at the present date nearly 300 patients waiting for admission. This fact, and the growing necessities of the hospital as the clinical school of the university and in some measure also of the extra-mural colleges are necessarily forcing into prominence the suggestion that the accommodation of the institution should be increased by the erection of a new wing. In the meantime the managers are asking for financial support to enable them to proceed with the new out-patient department. The scheme proposed in this direction is estimated to cost about £40,000, towards which upwards of £20,000 have been subscribed. The claims of this department are now so urgent that the managers feel compelled, in spite

of the appeals from other charitable and educational institutions, to urge their position on public attention. The Lord Provost moved the adoption of the report, and speeches in support were made by Mr. Parker Smith, M.P., and Principal Storr. The cost of the suggested new wing would be something like £25,000.

#### *St. Andrews University.*

The half-yearly meeting of the General Council of St. Andrews University was held on Nov. 29th, Principal Donaldson being in the chair. The council were occupied in discussing the University finances, the teaching of modern languages, and Mr. Carnegie's gift. It was announced that the ordinances founding the Bute Chair of Anatomy and the Chandos Chair of Physiology had been approved by His Majesty the King in Council. Full provision, therefore, now exists at St. Andrews for the first two years of the medical curriculum.—Professor Purdie has offered to the University the sum of £500 for the purpose of building and equipping a chemical research department in memory of the late Mr. Thomas Purdie of Castlecliff. It is a condition of the gift that the Carnegie trustees should regard the scheme with favour and be willing to assist in its promotion.

#### *Medico-Chirurgical Society of Aberdeen.*

At the recent annual meeting of this society the following office-bearers were elected for 1902:—President: Dr. D. W. Finlay. Vice-President: Dr. John Gordon. Secretary: Dr. John Marnoch. Recording Secretary: Dr. Ashley W. Mackintosh. Treasurer: Dr. W. Findlay. Librarian: Dr. Peter Howie. Members of Council: Dr. G. M. Edmond, Dr. Angus Fraser, Dr. D. W. Geddie, Dr. G. Watt, Dr. Albert Westland, and Dr. W. H. Williamson.

#### *University of Aberdeen Extension Fund.*

The subscription from the principal and professors of the University has been increased to £1200. Two gentlemen have offered £500 each on condition that 18 other subscriptions of same amount are obtained; and one gentleman is willing to increase his contribution by £50, making it £250, provided two subscriptions of £250 are counted as one of £500 in this connexion. Lord Provost Flemming, while in London, obtained subscriptions to the amount of £650. Several contributions of £100 and over have been recently intimated from the incorporated trades, and it is believed that the total donation from this source will amount to £1000, for which Principal Marshall Lang made an eloquent appeal at the convener dinner lately. At a meeting of the Students' Representative Council on Nov. 23rd a motion to the effect that the students as a whole should make a contribution towards the University extension scheme was defeated, the general feeling being that all students, whether able to give or not, would feel bound to subscribe. The total amount now promised (exclusive of conditional subscriptions) is slightly in excess of £14,500. This sum includes one subscription of £700 "In memory of Professor Jas. Kidd, D.D." and one of £300 from Sir Thomas Sutherland, London.

#### *Freedom of the City of Aberdeen for the Lord Rector.*

Lord Strathcona hopes to be able to come north early in the New Year, when he is to receive the freedom of the city of Aberdeen in consequence of his generous offer of £25,000 to the University Extension Fund.

#### *Senatus of Aberdeen University.*

On Nov. 30th a meeting was held at King's College. Professor J. W. H. Trail was re-elected assessor for a further term of five years. An acknowledgment was received from the president and fellows of Yale University, U.S.A., of the address of congratulation sent by Aberdeen University through its representative, Professor David Finlay, in connexion with the two-hundredth anniversary of the founding of Yale College. Professor Finlay, on whom the honorary degree of LL.D. of Yale University was conferred, also handed to the principal for custody a handsome commemorative bronze medal struck in honour of the celebration.

Dr. Ebenezer Duncan of Crosshill, Glasgow, has been appointed a justice of the peace for Renfrewshire.

Professor John Young, M.D. Univ. Edin., has been re-elected chairman of the Kelvin-side Ward Committee, Glasgow.

Dr. Philip C. Walker, who has for 12 months been resident

medical officer at the Paisley Fever Hospital, has sailed for South Africa, where he is to undertake duties in connexion with one of the concentration camps.

Dr. David Yellowlees has been appointed president of the Glasgow Medical Missionary Society.

Dec. 3rd.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

### *Fees of Medical Witnesses in Ireland.*

A DECISION of much importance and interest to the medical profession in Ireland with reference to the statutory fees of medical witnesses was pronounced in the Court of King's Bench on Nov. 25th, being contained in the judgment of Mr. Justice Kenny—with whom Mr. Justice Barton and Mr. Justice Wright concurred. In January last an action for damages against the Great Northern Railway Company of Ireland was tried before a judge and special jury in Dublin, resulting in a verdict for the plaintiff, by which he was awarded £450. Subsequently the costs were taxed and the railway company objected to certain allowances made by the taxing-master, more especially those to the medical witnesses. They objected to those charges, relying upon the schedule of costs by which, they submitted, the master was bound. That schedule provided that for professional witnesses residing within five miles of Dublin only one guinea a day should be allowed for attendance in court, unless in the opinion of the taxing-master the case was an exceptional one. The company submitted that in the present case there was nothing exceptional to justify an increase in the scale allowances. Mr. Justice Kenny, in delivering judgment, said, in reference to the payment of the medical witnesses, that the court considered that they were bound by the schedule and the decision of the Master of the Rolls in *Machonchly v. The Bank of New Zealand*, and that under the schedule they could not allow for attendance of medical witnesses in court more than one guinea a day to medical men resident within five miles of Dublin and three guineas to medical men outside that limit. They were, moreover, unable to see any exceptional circumstances in this case that would justify the taxing-master in allowing more than one guinea a day to the Dublin medical men. Mr. Justice Barton, in concurring, said that the court considered that the scale was binding on the master even in the case of medical men of exceptional eminence (the President of the Royal College of Surgeons in Ireland was a witness in this case). Mr. Justice Barton added that in England the taxing-master had a discretionary power in these matters, while in Ireland the rule was binding. Mr. Justice Wright also concurred, and said that the matter was of great importance to the plaintiff in this case, and of immense importance to railway companies who had constantly to face claims which were in the nature of sham actions. Both of the judges agreed with Mr. Justice Kenny, who had stated that he would not be dissatisfied if the case was taken to the Court of Appeal. Apart from the above case, and quite outside of it, it is notorious in Dublin that some medical men who are frequently called upon as expert witnesses in actions for damages, for and against railway and other companies, have occasionally appeared rather to resemble advocates for those for whom they were asked to give evidence, hence the remarks of Mr. Justice Wright which I append from the *Irish Times* of Nov. 26th. Mr. Justice Wright said: "He should be glad if the Court of Appeal would lay down some decision for their guidance which they would loyally follow. The taxing-master said the medical gentlemen had remained a long time in court. Sometimes medical men thought they were engaged in a duel. They remained in court listening to the evidence for the claimant with the view—well, of disproving what had been said on the other side. One of the dangers arising from that was that they were apt to forget their character of witnesses to tell the truth and become advocates of the side employing them. He did not say that their decision would reduce that tendency, but certainly it would not encourage the doctors to remain in court." The matter cannot well rest here. The decision may be reversed by the Court of Appeal, otherwise medical

men of position in Dublin will no longer appear as witnesses until after their suitable fees are personally guaranteed by those who request them to give evidence. That would seem regrettable for many and obvious reasons. On the other hand, it is unreasonable that a medical man should be asked to appear and to await the convenience of a court for hours, dissolve his engagements for the day, and undergo a cross-examination which may or may not be controlled by the presiding judge. (It may prove an unpleasant ordeal if the licence sometimes given to adverse counsel in the examination of all witnesses chances to prevail). It is preposterous to suppose that any medical man of high reputation in Dublin would accept voluntarily the position and give evidence in court under those conditions for a fee of one guinea per day. They will certainly refuse to do so, and the superior courts of law must accordingly be satisfied in future with the medical evidence of inferior members of the medical profession, or have the present condition of the law—as disclosed by the above-mentioned judgments—amended.

### *Health of Belfast.*

I am glad to say that there is a marked decrease in the number of cases of typhoid fever in the city, these being lower than at the corresponding period of last year. For the period between Oct. 20th and Nov. 16th (report presented to the city council on Dec. 1st) 200 cases of typhoid fever have been notified. In the Woodvale and Shankhill districts, where the disease has been specially prevalent, it seems to be dying out. The death-rate from zymotic diseases is considerably lower than it was last month, while, owing to the season, that from chest ailments shows an increase. Dr. A. G. Robb has been appointed to inspect the catchment area of the water-supply. The annual death-rate from all causes for the four weeks up to Nov. 16th was 18·5 per 1000, that for children under one year old was 3·2, and that for persons aged 60 years and upwards was 3·7 per 1000 of the population.

### *The Rainfall in November.*

There were 12 days' rain in Belfast during the past month, amounting to 4·64 inches. Nov. 11th and 12th were the wettest days, when over three inches of rain fell.

### *Larne Water-supply.*

The Larne Urban District Council have wisely decided to apply to the Local Government Board for their sanction to a loan of £4700, repayable in 35 years, in order to enlarge their reservoir and to make new water-mains. This scheme, if carried through, will be of the greatest service to the town and will do away with the inconvenience caused in the past. It is of the utmost importance that Larne—a sea-side resort on Belfast Lough much frequented by the citizens of Belfast—should have an adequate water-supply.

### *Appeal on behalf of the Late Mr. W. Smyth, I.R.C.S. Irel.*

IN THE LANCET of last week (p. 1539) attention was drawn to the heroic death of an Irish dispensary medical officer, Mr. W. Smyth, which took place at his residence, Burton Port, Donegal, the cause being typhus fever, contracted in bringing over from Arranmore Island some fever-stricken patients to the mainland for proper hospital treatment. An appeal on behalf of his widow and eight children, signed by Dr. W. Calwell, 1, College-square, N., Belfast (secretary of the North of Ireland Branch of the British Medical Association), Mr. Robert Campbell (secretary of the Ulster Medical Society), and Mr. Henry Woods, The Bank Buildings, Belfast (treasurer), has been sent out to the members of the medical profession and others in Belfast and district who may wish to join in a local movement to show their appreciation of an act which sheds lustre on the medical profession the world over. The following subscriptions are already promised:—

£ s. d.		£ s. d.	
Sir James Musgrave,		Professor W. Whitla	2 2 0
Bart., D.L.	5 0 0	Mr. John Wales, J.P.	1 1 0
Mr. W. Robertson, J.P.	5 0 0	Sir James Henderson,	
Mr. Henry S. Woods	5 0 0	D.L.	1 0
Professor J. W. Byers	2 2 0	Dr. S. Darling	1 1
Dr. W. Calwell	2 2 0	Dr. G. Bracken	1 1 0
Professor Lindsay,	2 2 0	Mr. John Y. Calwell	1 0 0
Dec. 3rd.			

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

*Politics and Foundlings.*

A HEATED discussion which has just taken place in the General Council of the Department of the Seine has once again shown how political considerations affect questions of Poor-law administration and charity organisation. This time the matter in hand was the case of children abandoned by their parents to the care of the State, such children, that is to say, as were formerly called "*enfants trouvés*," from being left in the street. These children are cared for by the Assistance Publique in a special hospital at Paris during their infancy and later they are distributed throughout the country among various peasants who are charged to bring them up with their own families and to teach them a trade. The Assistance Publique pays a small subsidy for their keep and supplies medical inspectors whose duty it is to visit the baby-farmer and to see that the children are being properly cared for. The parents of the children know nothing as to where the children may be, but are allowed to attend once a year at the chief office of the Assistance Publique to hear the latest news of them and whether they are alive and well. On a child reaching the age of 16 years the parents can reclaim him or her provided that they pay over to the Assistance Publique a sum of 1500 francs which in part repays the cost of the child's bringing up. This sum, too, represents a little subsidy both for the baby-farmer and for the medical inspector and, as a rule, it is thought a good deal of. It is quite certain that the choice of a baby-farmer is regulated by political considerations, and the same thing practically paralyses the action of the medical inspector, as, for instance, in a case where he should exercise his official powers and order a child to be taken away from one baby-farmer and handed over to another because it is not properly looked after. Many country practitioners are deeply involved in politics, either because they canvass their patients to elect them as municipal councillors or deputies or else because they act as election agents for other politicians with a view to getting a well-paid appointment or a decoration as a reward. Gross scandals have arisen from causes such as these. For instance, only the other day neither the mayor of the commune nor the medical man had the courage to denounce a baby-farmer, in the charge of whom four children had died one after the other, because his position as a prominent elector and a *protégé* of the deputy rendered him unsailable. After a heated debate various motions were put forward, some suggesting that medical inspectors should have nothing to do with politics either on their own behalf or on that of anyone else, others that they should be incapable of holding any official position, others again that they should not be local men, as such were hindered in their work by personal relations, but should be sent from Paris after being chosen by public competition among recently qualified practitioners. The committee of the Assistance Publique argued in defence that the facts put forward were much exaggerated and pointed out the various undeniable improvements which have recently been introduced—as, for example, the observation hospital at Chatillon for children suspected to be suffering from tuberculosis. Again, many of the medical inspectors are appointed for life and cannot be replaced until they resign or die. The committee, however, did not seem unwilling that in the future the posts becoming vacant should be filled up from Paris in the manner indicated above.

*The Consumption of Alcohol since the New Licensing Laws.*

When the new regulations as to alcoholic drinks came into force there were not wanting those who expressed the opinion that they would increase the consumption of wine without diminishing that of spirits. It is quite certain that the consumption of wine has gone up, probably by 20 or 25 per cent., but it is much to be feared that the consumption of spirits has not diminished. The removal of the *octroi* duties this year happens to have coincided with a plentiful wine crop and consequently with very low prices. In fact, the price of wine has dropped quite 50 per cent. The average workman, however, does not economise by this, for instead of drinking

half a litre of wine with his dinner he drinks a litre, and probably when prices rise he will not limit his consumption accordingly. Cases of cirrhosis are not on the decrease. The Ministers of Agriculture and of Finance have been inquiring into the subjects of viticulture and the consumption of wines as affected by the recent reduction in the taxation of wholesome drinks. The figures obtained show that during the first four months of 1901 the amount of wine consumed amounted to 18,000,000 hectolitres as against 10,000,000 hectolitres for the corresponding period of the year 1900. This is nearly an increase of 50 per cent. It was also stated that there appears to be a manifest tendency to drink white wine in place of absinthe. For Paris, however, this statement does not seem to rest on any good foundation.

Dec. 3rd.

## ROME.

(FROM OUR OWN CORRESPONDENT.)

*The Admission of Foreign Graduates to Italian Degrees in Medicine.*

In a recent letter<sup>1</sup> I referred to the possibility of a change being made in the law which permits of the admission on very easy terms of graduates of foreign universities to Italian degrees in medicine. Action in this direction has already been taken by the Ordini dei Medici who at their annual meeting held in Rome on Nov. 9th to 11th passed a resolution calling for the abolition of a system which they hold to be detrimental to the interests of Italian medical men and demanding that no one shall be allowed to take the *laurea* of an Italian university unless he has passed all the examinations and taken out all the courses of lectures obligatory on its own students. Although the professed and immediate object of this proposal is to equalise matters with foreign universities which do not offer any return for Italian liberality, the real end in view is to protect the native practitioner from foreign competition. In this respect it doubtless indicates a determination to close up all side avenues by which the foreign practitioner might possibly re-enter the field when the long-threatened law cancelling his present privileges and thus excluding him from it shall have finally been passed. Meanwhile the agitation in favour of this law appears to have been dropped, its promoters probably realising that under its pressure the majority of the foreign medical men, now content with their practice amongst foreigners, would be driven to take Italian degrees and thus become more dangerous rivals than before. As long as the present facilities exist for obtaining such degrees this will be the natural effect, hence the anxiety that first of all these facilities should be immediately abolished.

*Pellagra in Italy.*

A comparison of the numbers of *pellagrosi* as they appear from the census tables of 1881 with those of 1899 reveals, according to Professor Pagliani of Turin a diminution of pellagra in recent years in northern Italy and especially in Lombardy, the Veneto, and Emilia. Among every 1000 of the agricultural population of these provinces the quota of affected persons has fallen during the period mentioned from 27.36 to 12.90, from 53.67 to 34.32, and from 7.79 to 4.27 respectively. It is in these same districts that philanthropic effort has been most active in providing for the pellagrous hospitals, sanitary dwellings, soup kitchens, arrangements for the proper drying of maize, &c. It is, on the contrary, disquieting to find in other provinces where a few years back pellagra was very mild and uncommon or altogether unknown that a sensible augmentation, and in many cases a great increase, has taken place. For instance, in Piedmont, although the actual number of cases remains about the same, there are a good many more *lunatic pellagrosi*. In the Marches, Umbria, and Tuscany the number of cases has quadrupled, passing in the first two districts from 2 to 8.82 and in the last from 0.10 to 0.40 per 1000. Deaths occurred from pellagra during 1899 in the Abruzzi, in Campania, and in Puglia. The supposition that this increase is due to an accentuation of the impoverished condition of the people is in contradiction to the fact that the general mortality there, as elsewhere in

<sup>1</sup> THE LANCET, Oct. 26th, 1901, p. 1163.

Italy, has diminished in the last decade: moreover, poverty is known to be only a predisposing, and not an efficient, cause of pellagra. Nor can it be ascribed to an extension of the cultivation of maize and consequent increase in the use of that grain as food. On the other hand, the evidence is strong that the spread of infection is in close relation to the importation of damaged maize from America, an importation which has increased at an extraordinary rate in the last few years. Since about the year 1895 it appears that speculators have been buying up maize on the coasts of the Argentine Republic and United States and transporting it at a trifling cost to Italy, where it is sold in immense quantities and at an enormous profit. During its passage across the ocean through warm latitudes this maize, newly reaped, immature, and imperfectly dried, becomes mouldy in the vessel's hold and so acquires those poisonous properties which have now been proved almost certainly to be the cause of pellagra. Although there has been an ordinance on the Statute book since 1895 prohibiting the importation into the kingdom of damaged maize for any purpose whatever concessions made to the speculators by the Government have neutralised its effect and the poisoned grain has been finding its way to many parts of Italy with results disastrous to the public health, increasing the numbers of *pellagrosi* in the affected districts, and originating fresh cases where none had previously existed. The Minister of the Interior has now issued stringent orders to the prefects instructing them to see that in future the existing regulations are applied with the utmost rigour.

Nov. 30th.

## NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

### *The Health of the Army.*

SURGEON-GENERAL STERNBERG has submitted his annual report to the Secretary of War, from which it appears that the admission-rate to hospitals for all causes in the army, volunteers and regulars, with a mean strength of 190,389 in 1900, was 2311.81 per 1000 of strength, as compared with 2187.06 in the previous year; but in the year 1899 only 39,280 men out of a total of 105,546 were serving in the Philippines, while in the last year 68,882 out of a total of 100,389 were thus serving. In the Philippine Islands, with a mean strength of 66,882, the admission-rate was 2621.96, as compared with 2395.52 in the previous year, this increase being mainly due to diseases among the volunteers, the ratio for which rose from 1859.21 to 2761.79. The regulars, on the other hand, showed a marked decrease in the ratio of admissions for disease, which fell from 2454.10 to 2197.73. Two-thirds of the admissions for disease were caused by malarial fevers and diarrhoeal diseases. The deaths from all causes amounted to 28.75 per 1000 of strength, as compared with 30.58 in the previous year. Disease occasioned 20.26 deaths, the principal cause of the fatalities being dysentery, which with other intestinal diseases gave a ratio of 9.08. The rate from injury amounted to 8.49. The death-rate in China was large, 47.76 per 1000 of strength, 23.62 from diseases and 24.14 from injury. From the close of the calendar year 1900 to the latest reports the health of the troops in the Philippines has been steadily improving. The health of the troops in Cuba during the year was excellent. As a result of American occupation nearly every city and town has had its sanitary condition improved. There has been a steady decrease in the past few years in the number of admissions for alcoholism among the men of the regular army. Military officers may be said to be unanimous in their opinion that this is the result in the main of the establishment of the post exchange or canteen at military posts. There is less drunkenness among troops in active service than in a command doing garrison duty in times of peace.

### *Results of the Study of Yellow Fever in Cuba.*

Surgeon-General Sternberg, our best authority on the causation of yellow fever, gives the following opinion of the studies recently carried on in Cuba. The results obtained were especially valuable, showing that the bacillus *icteroides* (Sanarelli) bears no causative relation to yellow fever and that the mosquito serves as an intermediate host for the

parasite of this disease. Further experiments of a most interesting character demonstrated that yellow fever is transmitted to non-immunes by the bite of a mosquito that has previously fed on the blood of those suffering from the disease; that yellow fever can be produced by the subcutaneous injection of blood taken from the general circulation during the first and second days of the disease; that an attack of yellow fever produced by the bite of a mosquito confers immunity from the subsequent injection of infected blood; that yellow fever is not conveyed by clothing, bedding, or merchandise soiled by contact with those who are suffering from the disease; and that the spread of this disease can be most effectually controlled by measures directed to the destruction of mosquitoes and the protection of the sick against the bites of these insects. The results of this investigation are of far-reaching importance, as the surgeons are now in possession of knowledge which enables them to stamp out yellow fever.

### *Tetanus following the Use of Diphtheria Antitoxin.*

Answering a request for information regarding deaths from antitoxin in St. Louis Dr. MacC. Starkloff, the Health Commissioner of that city, reports the occurrence of 20 cases of tetanus following the use of serum and ten deaths. The horse from which the antitoxic serum was taken was originally an ambulance horse, but having met with an accident to its shoulder had been under treatment for the production of diphtheria antitoxin for nearly three years. The animal had been bled a number of times and had furnished over 30,000 cubic centimetres (30 quarts) of diphtheritic antitoxin. As a matter of fact, the Health Department secured the greater part of the antitoxin distributed during the years 1900 and 1901 from this horse, which seemed to be in perfect physical condition when bled on August 24th and Sept. 30th. The bleeding on the latter day was followed by a decided reaction, and on the following day the horse refused food and experienced difficulty in breathing. The veterinary surgeon pronounced the animal sick beyond recovery from tetanus and it was killed. The city bacteriologist states that he is confident that the tetanus bacillus will not be found in the serum, basing his opinion from the painstaking care with which it was prepared, and from the fact that it contained 0.04 per cent. of tricresol. It is, however, within the limit of probability that the horse may have had the tetanus bacillus latent for some time before August 24th, and that the disease did not develop sufficiently to manifest itself until vitality was lowered by the bleeding of Sept. 30th. If this were so the tetanus toxin might have been in the blood on August 24th, the date of the bleeding. If the tetanus toxins were in the horse's blood prior to August 24th it was beyond the range of human knowledge to detect it by an inspection of the animal. It is a well-known fact that horses undergoing treatment for the production of diphtheria antitoxin are highly susceptible to the infection with the bacillus of tetanus. The department has lost six antitoxin horses from tetanus since 1895.

### *Sanitation of North and South American Ports.*

Surgeon-General Wyman of the United States Marine Hospital Service intends to bring forward at the International Conference of American States shortly to be held in Mexico a scheme for the sanitation on uniform lines of all North and South American ports. Surgeon-General Wyman's plan provides for the appointment of an International Sanitary Commission to consist of five members, two of whom shall be residents or citizens of the same Republic. Law, sanitary science, medicine, and commerce are all to be represented. South America will be asked to prevent the spread of infectious diseases by an international agreement in which the health authorities of the respective countries and States of both continents will participate. Harbours, sewerage, and drainage, as well as the warding off of infection from buildings, will be the points considered. Preventive measures against the spread of yellow fever will be a special object of this commission. The recent investigations in Cuba and the experience taught to Americans during the Spanish-American war will doubtless prove of peculiar value in this connexion. The whole plan is a step in the right direction.

Nov. 15th.

**NEW INFIRMARY AT SWANSEA.**—The Swansea Board of Guardians are about to erect a new infirmary for the workhouse and on Nov. 27th a tender of £15,681 for the execution of the work was accepted.

## Obituary.

SIR WILLIAM MACCORMAC, BART., K.C.B., K.C.V.O.,  
F.R.C.S. ENG. AND IREL., D.Sc., M.CH. R.U.I.,

HONORARY SERGEANT-SURGEON TO H.M. THE KING; CONSULTING  
SURGEON TO, AND EMERITUS LECTURER IN SURGERY AT,  
ST. THOMAS'S HOSPITAL; LATE PRESIDENT OF THE  
ROYAL COLLEGE OF SURGEONS OF ENGLAND, ETC.

THE medical profession will have heard with deep regret of the sudden death of Sir William MacCormac, which took place at Bath on Wednesday morning last.

Sir William MacCormac was born at Belfast on Jan. 17th, 1836, his father, Dr. Henry MacCormac, being a medical practitioner in that town. Dr. Henry MacCormac was a distinguished man, a linguist, an expert in tropical diseases, and a pioneer of the open-air treatment of phthisis; he was in every way the sort of man from whom a successful son might be expected. Sir William MacCormac's mother was descended from the Newsam family, respected merchants of Belfast.

Sir William MacCormac received his education at the Belfast Institute, where, in his earliest days, he made use of the powers of observation which in later years stood him in such good stead. At this institution his father held a professorship for some years. After a few years young MacCormac proceeded to Dublin, going thence to complete his studies in Paris. He graduated at the Queen's University of Ireland in 1856 as a Bachelor of Arts, and two years later proceeded to his Master's degree. During his college days he showed himself an athlete of some note, and by his geniality and diligence gained very many friends both among his teachers and fellow students. It was not until he had graduated in arts in 1856 that he turned his attention finally to the study of medicine. He had long felt a leaning towards the profession of his father, from whose ample and diversified store he had already picked up many crumbs of knowledge. After an unusually active and brilliant career as a student he qualified at the Queen's University of Ireland, and in 1864 became a Fellow of the Royal College of Surgeons in Ireland. In the same year he was elected surgeon to the Royal Belfast Hospital, and during his six years' tenure of that post he did much excellent work. It was in great measure to experience gained in this splendid institution that he owed the unflinching accuracy that characterised his work as a military surgeon. While at Belfast he made injuries of joints his especial subject, not, however, by any means neglecting a wider view of clinical surgery as a whole. His ward teaching was from the beginning of his career as a staff surgeon of high order, as very many of his old pupils and colleagues now practising in England and Ireland can gratefully testify.

MacCormac's connexion with the Queen's University of Ireland was very intimate, and from that body he received the honorary degrees of Master of Surgery in 1879 and Doctor of Science in 1882, as well as its gold medal; while for many years he was a member of its Senate and an Examiner in Surgery. He did a large share of the work which resulted in the recognition of the Queen's University among the teaching institutions in the sister island, applying his best energies to his duties as a member of the Senate and doing valuable work both as a surgeon and a surgical teacher.

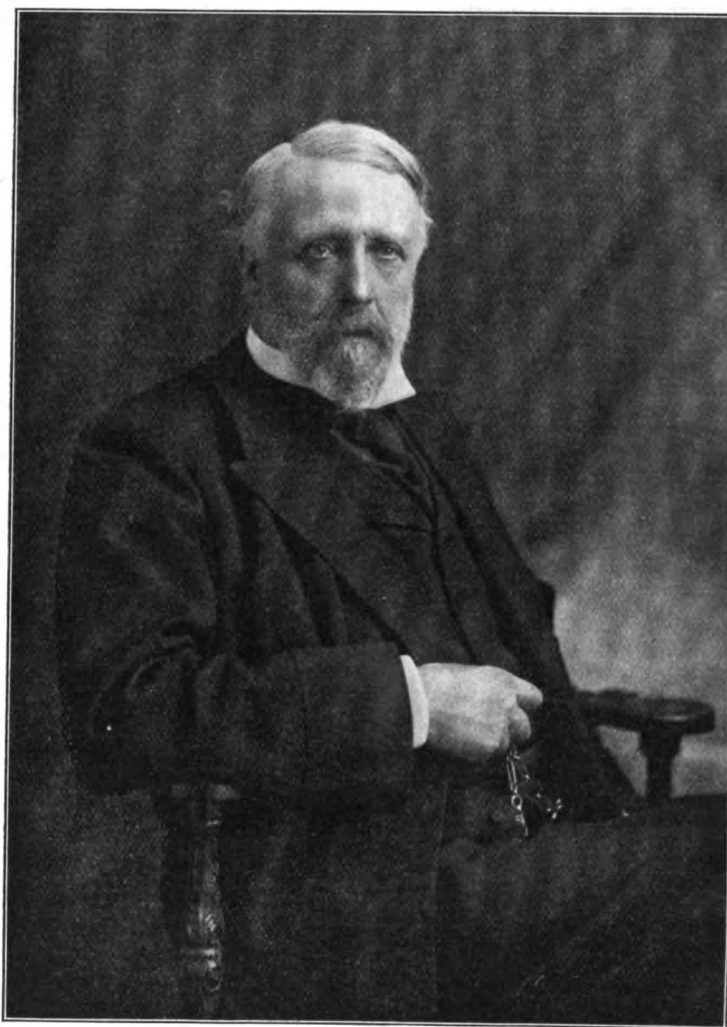
In the year 1870 the Franco-Prussian War was the paramount topic of the day: the newspapers teemed with details of the campaign, and the chief matters of discussion were the doings of the two armies and the characteristics of their several generals. The medical arrangements were, on the French side especially, totally inadequate to provide for the due care of the poor victims of the chassepot and the needle-gun; the hurry which characterised all the movements of the French authorities during this disastrous campaign was even more noticeable in the ambulance arrangements than in the commissariat and munitions departments—and, as history shows, these were bad enough. It was not only the desire "to see what military surgery was like," to use his own expression, but a feeling of deep humanity which led MacCormac to throw up his appointment at Belfast and make for

Paris to volunteer his services for the aid of the wounded French soldiers on the German frontier. After a good deal of discouragement from the French authorities, who were exceptionally severe in their exclusion of foreigners, for the spy panic was at its height, MacCormac was, chiefly through the instrumentality of Nélaton, permitted to proceed to Metz and instructed there to report himself to M. Isnard, the surgeon-in-chief. This was, it will be remembered, the period at which Maréchal Bazaine was with his *corps d'armée* awaiting the Prussian attack before the fortress of Metz. The English surgeon was welcomed by the medical staff, but by the military authorities, still on the almost insanely ardent search for spies, he was requested to leave Metz and to retire to Chalons. During his short stay he had nevertheless seen a good deal of the practice in the Metz hospitals and was thus prepared for what he was to see anon. After some further trouble with the authorities MacCormac succeeded in joining the Anglo-American Ambulance, a body consisting of 16 medical men, of whom eight were English and eight American, and over whom Dr. Marion Sims presided. On the reconstruction of this body MacCormac was placed second in command, which position he shortly afterwards, on the return of Dr. Marion Sims to New York, changed for that of Surgeon-in-Chief. Within a few days of his joining this noble mission MacCormac and his companions were in the thick of the fray. Each day considerably more than a hundred major operations were performed and MacCormac's share of these was more than would have fallen to him by lot. A day of his work at Caserne d'Asfeld cannot be better described than in his own words, "I did not succeed in keeping a record of all the work that was done that day. Indeed I only wonder I kept any record at all. I find, however, that I performed several amputations of the leg, the thigh, the forearm, and the arm, that I excised the shoulder and the elbow-joints and also performed partial resections of the upper and lower maxillæ and of nearly the whole ulna. The number of bullets and pieces of shell that were extracted from various parts of the body are too numerous to reckon." This record of a day's operative surgery is sufficiently startling, but MacCormac did very many such days' work before the war on the frontier practically terminated. His operations were successful as a whole, and when we call to mind the terribly insanitary buildings which had to be utilised as hospital wards and the imperfect assistance with which the surgeons had to be content his results were surprisingly satisfactory. He did not himself escape entirely free from the effects of his arduous work, for on the fifth day of his service he writes in his diary:—

"To-day I was annoyed to find that a cut I had received on the finger had become poisoned, and that the lymphatics up the arm were inflamed. I had a smart rigor and felt very unwell for a day or two, but then I got quit of it, and although I afterwards repeatedly jagged myself with needles and had several cuts on my fingers which were constantly being dabbled in the offensive discharges from wounds, it seemed, strange to say, as if the first inoculation had procured for me future immunity, for I experienced no further trouble from that cause whatever, although the hospital was for a long time in a very poisonous state."

It must truly have called into play all MacCormac's physical endurance and determination to continue work under such conditions. But he was, above all, a man who could never conceive the possibility of turning back from any task to which he had once set himself. The only fault it would be possible for even the most critical observer to find with his work in war surgery in this campaign is that he was, as many civil surgeons would have been, somewhat too anxious to avoid amputation and to save the limb; in pursuance of this intention his results were numerically not so good as his skill warranted. Bullet injuries following the weapons used in the Franco-German war were awkward as to after-treatment, and the attempted saving of the limb sometimes jeopardised life.

On his return to England MacCormac was elected assistant surgeon to St. Thomas's Hospital in recognition of the unique surgical experiences through which he had just passed. With the affairs of this institution he maintained the closest connexion until the day of his death, being successively assistant surgeon, surgeon, lecturer in surgery, consulting surgeon, and emeritus lecturer in clinical surgery. His work at St. Thomas's Hospital will be gratefully remembered by a large number of our readers who have had the privilege of his personal guidance in



*William Mac Cormac*



their studies and have watched his skilful practical demonstrations. William MacCormac was eminently adapted to capture the confidence and liking of those students and practitioners, especially the younger men amongst them, who came under his immediate influence. There was a steadiness about all he did, an absorption in the immediate action, which could not but inspire the young men with whom he had to deal with the feeling that he was one who had encountered and triumphed over difficulties. The gift, also, of seeing the pitfalls into which students might most easily fall was not the least among the qualifications he possessed as a successful and popular teacher.

In 1871, the year that he was elected to fill the post of assistant surgeon to St. Thomas's Hospital, he became a Fellow by examination of the Royal College of Surgeons of England and in 1883 was elected a Member of the Council of that body. His connexion with the College from henceforth was very close. In 1887 he was appointed a member of the Court of Examiners, of which he was eventually chairman, and in July, 1896, he was elected to the presidential chair in succession to Mr. Christopher Heath. As an examiner Sir William MacCormac's qualities came into full play, his clear style of expressing himself and his sympathetic method of putting questions to students who were hardly at their ease rendered him particularly popular. His questions were always searching, pertinent, and, above all, practical, and his method of putting them was reassuring. He had a real power of making candidates appear at their best. He was examiner in surgery to the University of London for many years, and also examined in surgery for a long period the candidates for commissions in the Army Medical Service, the Royal Navy Medical Service, and the Indian Medical Service.

Sir William MacCormac was re-elected President of the Royal College of Surgeons of England four years in succession, thereby holding the office for the unprecedented period of five years. Throughout this long tenure Sir William applied himself most assiduously to every detail of the manifold duties of the presidency, not only as regards the internal affairs of the College, but also as regards its external relations with the public and the State. He conducted the business of the College quietly but strenuously, courteously but firmly. As the representative of the College before the public he gained the respect and confidence of all ranks of society by his genial manner, his quick and active sympathy with everything that concerned the public health, and more particularly the welfare of our soldiers and sailors. The remarkable success of the celebration of the centenary of the College last year, with its many brilliant and imposing ceremonies, was in a very large degree due to his personal interest and influence. Chiefly through his initiative and instrumentality the (then) Prince of Wales, the Prime Minister of England, and the Earl of Rosebery, and a large number of the most eminent representatives of surgery throughout the world, were present to do honour to the College and to receive at the President's hands the distinction of the Honorary Fellowship of the College.

In 1881, when the International Medical Congress met in London, MacCormac was appointed secretary-general, and a more useful man for a difficult position could not have been found. He showed himself indefatigable in his endeavours to make the great gathering run smoothly, and won enthusiastic appreciation from the numerous foreign guests. His report of the transactions of this great meeting was an excellent compilation, and was translated both into French and German. The labour of this production alone was considerable, and at the end of the year in which the Congress took place MacCormac, to whom we have already alluded under his title, received the honour of knighthood.

When the war between the Turks and the Servians broke out and Eastern Europe was embroiled in the long strife which terminated so disastrously for the Turks at the hands of Russia, MacCormac was appointed by the Stafford House Committee surgeon-in-chief and played the principal part in disposing of the medical officers of the committee and the stores in the most efficient manner for the benefit and relief of the wounded. The good work done by the ambulance corps in this campaign was both welcome and successful. The inclemency of the weather and the wretched accommodation for the wounded, no less than the insanitary habits of the East, rendered such help almost indispensable, and the efficiency of the Stafford House

expedition owed much, indeed, to the experience and activity of MacCormac.

Then came more than 20 years of fruitful surgical work at St. Thomas's Hospital, during which time a large consulting practice was steadily built up. Our columns contain many accounts of interesting cases proving his dexterity and resource. In particular reference may be made to certain cases of operation for ruptured bladder, which will be found in THE LANCET, vol. ii., 1886, p. 1118. Here he describes the procedure which he undertook in two cases of intra-peritoneal rupture of the viscus. He performed abdominal section, washed out the peritoneal cavity, and sewed up the bladder, being a pioneer in this bold treatment. In 1897, in recognition of his position as President of the Royal College of Surgeons of England, he was made a baronet, while in July, 1898, came a still more direct acknowledgment of his high place in the surgical world. In this month he was summoned to attend the King, then Prince of Wales, who it will be remembered fractured his patella while descending a staircase at Waddesdon. Sir William MacCormac directed the treatment which resulted in a satisfactory union, and as a reward for his responsible services to the heir to the Crown was made a Knight Commander of the Victorian Order.

In the next year the routine of his official and professional work was rudely broken into, and for the third time in his life he started for the seat of a bloody war to place his services at the disposal of the wounded. Soon after the outbreak of the South African war the Government determined to avail itself of the services of three civilian consultants and in November, 1899, Sir William MacCormac left England for Cape Town, being shortly followed by Mr. G. H. Makins and Mr. (now Sir Frederick) Treves. On arriving at the Cape Sir William MacCormac lost no time in setting to work, beginning his experience of the campaign by visiting the General Hospital at Wynberg. From Cape Town he proceeded to Durban, thence to Pietermaritzburg and Frere. He assisted in the care of the wounded after Colenso, and then, returning to Cape Town, accompanied Lord Roberts to the Modder river and went on to Jacobsdaal and Kimberley. He served four months as civilian consulting surgeon, returning to England at the beginning of May, 1900. His experiences during the war were admirably set forth in the interesting series of letters which he wrote for our columns. Chosen by the Government to come to their aid because of his unique familiarity with the surgery of war, he modestly admitted in his account of what he saw during the campaign against the Boers that his past experiences did not avail him much. The surgery of gunshot wounds had, he found, been completely revolutionised by the introduction of modern arms, and he was himself in many respects a student. But his sound knowledge of surgical principles, as well as his enthusiasm for his science, enabled him to grasp quickly the new indications for treatment and the new modifications that must be made in diagnosis, so that it is easy to see that from the first he was able to render most valuable assistance to the forces. A sharp attack of dysentery temporarily invalidated him during his stay in South Africa, but he returned in good health. For his patriotic service to his country he was made a Knight Commander of the Bath at the beginning of this year.

Sir William MacCormac's works are not very many in number but some have been widely read. The most notable of them, perhaps, is "Work under the Red Cross," which consists of a series of graphic entries in his diary during the Franco-Prussian war illustrated by heliotypes. This work, from which we have already made one or two quotations, is marked by an unstudied directness which cannot fail to appeal to the general reader, although the wealth of surgical detail shows that the unpretentious volume was intended simply for medical men who, like MacCormac himself, felt an interest in seeing "what war surgery is like." The book has been translated by M. Morache into the French tongue and has enjoyed a wide popularity on the continent as well as in England. On Dec. 3rd, 1879, MacCormac opened a debate at a meeting of the Metropolitan Counties (South London District) Branch of the British Medical Association on the subject of Antiseptic Surgery. His paper was based upon a system of statistics and he dwelt chiefly on the application of Listerism to military surgery. The address was followed by a spirited debate in which Professor (now Lord) Lister, the late Sir Spencer Wells, Mr. Bryant, Mr. Macnamara, Mr. Barwell, Mr. (now Sir) Thomas Smith, and Mr. Timothy Holmes took part. The

debate was then adjourned and on meeting again on Dec. 17th Mr. Jonathan Hutchinson, Sir James Paget, Mr. Lund, Mr. Knowsley Thornton, and the late Mr. Morratt Baker spoke at some length. The valuable opinions thus adduced, together with a general chapter on the antiseptic theory, were published in volume form by Sir William MacCormac in the following year. This book forms a most interesting record of the period when Listerism was not entirely accepted by all, and when, although it had up to that time withstood all attacks, it was still looked on with a vague and hardly acknowledged suspicion by many of the old school of surgeons. The discussion which then took place may well be reckoned among the most useful debates that has ever taken place in the history of surgery.

In 1885 the first section of Sir William MacCormac's "Surgical Operations" appeared. It dealt with "The Ligature of the Arteries," and commenced with an account of the different modes of ligature, the conditions for which the operation is required, the details of its performance, and the effects which may result. After this each region was minutely dealt with, the whole being illustrated with beauty as well as accuracy. Sir William MacCormac did not confine himself to the bare details of surgical anatomy but at intervals digressed into clinical details. Although this part of the work met with deserved success and was re-published five years later, the remaining sections were never produced.

Sir William MacCormac remained up to the time of his death on the consulting staffs of the Royal Belfast Hospital, St. Thomas's Hospital, the French Hospital in Soho, the Italian Hospital in Bloomsbury, and Queen Charlotte's Lying-in Hospital. His services, besides receiving recognition at the hands of his Sovereign, were rewarded by a very large number of foreign honours, among them the Legion of Honour, the Order of the Dannebrog, the Order of the Crown of Prussia, the Order of the Crown of Italy, the North Star of Sweden, the Order of Saint Jago of Portugal, the Order of Merit of Spain, and the Order of the Takovo of Servia. He was likewise honoured by the Order of Ritterkreuz of Bavaria and the Medjedieh. His professional honours were, as has appeared in the course of this biographical sketch, equally numerous. He was member of a very large number of learned societies both at home and abroad, and at the great meeting of the British Medical Association in London in 1895 was President of the Section of Surgery. In that capacity he delivered one of the most universally interesting addresses of the meeting, taking for his theme his favourite subject of the advance of war surgery with special reference to the effects of modern projectiles.

Sir William MacCormac married in 1861 Katherine, daughter of Mr. John Charters of Belfast, who survives him. He leaves no children.

Sir William MacCormac had suffered for the last two or three months from insomnia, depression, and vague pains in the back, but his sudden death from cardiac failure has come as a great surprise to the medical profession. Only his intimate friends and medical advisers considered him to be in a serious state of health.

The funeral will take place on Monday next at Kensal Green Cemetery.

#### ARCHIBALD CAMPBELL CLARK, M.D. EDIN., F.F.P.S. GLASG.

WE regret to announce the death of Dr. Campbell Clark, which took place at his residence, Hartwood, Glasgow, on Nov. 28th. Dr. Clark had been in declining health during the last year, having had a somewhat severe attack of influenza which was followed by visceral complications, to which he eventually succumbed. Dr. Clark was a distinguished student at the University of Edinburgh, where he took his degree of M.D. with honours in 1886. After having been for a few months assistant medical officer at the Melrose Asylum, he joined the staff of Morningside Asylum, under Dr. T. S. Clouston. At a comparatively early age he was appointed medical superintendent of the Glasgow District Asylum at Bothwell, where he soon distinguished himself by original research and literary work and laid the foundation of his reputation as one of the foremost alienist physicians of the day. While superintendent of the Bothwell Asylum he was chosen for the superintendency of the new

asylum for the county of Lanark to be built at Hartwood, and he was for several years engaged in connexion with the plans of the new asylum and in the superintendence of its erection and equipment. The asylum, which was opened about six years ago, remains a monument to his genius for organisation and to his mastery of the principles governing the humanitarian treatment of the insane. In the happy combination of simplicity of design, adaptation of means to ends, and economy of construction, Hartwood Asylum is remarkable. Dr. Clark was the pioneer of the latter-day movement for the scientific training of attendants upon the insane and was joint author of a practical manual on the subject. His contributions to medical science were varied and important and always characterised by originality, his treatise upon the "Etiology, Pathology, and Treatment of Puerperal Insanity" embodying clinical observations of abiding value, and his work in connexion with experimental dietetics in lunacy practice being of the most brilliant character. His *magnum opus*, however, was "A Clinical Manual of Mental Diseases," published in 1897. He held the post of Lecturer on Psychological Medicine at St. Mungo's College, Glasgow, and was President of the Caledonian Medical Society, which held its annual meeting in Glasgow in August last. The fact that it was prepared on a sick bed lent a pathetic interest to his presidential address on that occasion. Dr. Clark was a man of generous character and wide sympathies, and his death will be deplored as a personal loss by his many friends, and also in the wider circle of those to whom he had held out a helping hand in time of distress and adversity.

**DEATHS OF EMINENT FOREIGN MEDICAL MEN.**—The deaths of the following eminent foreign medical men are announced:—Dr. Bohoslav von Jirus, Professor of Pharmacology in the Bohemian University of Prague, at the age of 60 years.—Dr. Giuseppe Chiarleoni, Professor of Medical Pathology in Palermo.

## THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE proceedings of the General Medical Council came to a conclusion on Tuesday afternoon, Dec. 3rd.

Those who best know the work and the working of the General Medical Council anticipated that the late session would be a short one. They expected that it would last five days and end on Saturday, Nov. 30th. They have been mistaken. The Council sat seven days instead of five, and has something to show for the time and the money spent. In our opinion the really interesting and important work might easily have been done in five days with advantage to the Council's finances, but we do not lay stress on this, preferring to be thankful for the progress made.

Readers of the Life of Sir James Paget will have noticed that he disliked the work of the Council. Doubtless his dislike was due to its constitution and the limitations of its power. Those who have been accustomed to office in smaller and more compact bodies, with definite functions and absolute power within the limits of those functions, naturally feel unwilling to spend session after session in discussing the same subjects somewhat academically. This is what members of a complicated body whose resolutions only amount to recommendations, and have to be framed so as to please all the consenting parties, are forced to do. This fact is much concealed in the Council by the general sense of responsibility of the various members and by their perception of the fact that they are mutually indebted to each other for sound suggestion in matters affecting all the bodies in common and medical education in particular.

Unless the sense of public responsibility and of the unseemliness of differences between bodies with similar functions grows there can be little doubt that the authority and credit of the Council will suffer seriously.

The business of the Council in the session which has just closed was, in fact, extremely simple. It was divisible as usual into two chief parts—one having reference to the disciplinary function of the Council and the other to its action as a council of medical education. The Council appeared to great advantage in the discharge of the first part of its business. The proceedings were grave and full of consideration for the practitioners implicated. The case of the Scottish practitioners charged with employing as assistants for the sale of scheduled poisons persons not qualified to act as pharmaceutical assistants and thereby causing such persons to commit breaches of the Pharmacy Act was very important. The proceedings were much simplified by the dignified action of the accused practitioners who, at an early stage of the inquiry, expressed their regret at the custom complained of and made it easy for the General Medical Council to close the case at once. The degree in which registered medical practitioners can compete with pharmaceutical chemists in the sale of ordinary drugs has not been settled by this decision of the General Medical Council. This is a point which must be left meantime to the judgment and the taste of registered medical men, and to their sense of what is due to the great profession of which they are members. But it was clearly impossible for the General Medical Council to allow registered practitioners to infringe, or even to appear to infringe, the law as to the sale of poisons.

Not at all less important, whether viewed in its professional or public aspects, is the case of Dr. Robert Rendall, M.B., C.M. Edin., who had been summoned before the General Medical Council charged with "having accepted and continuing to hold the appointment of medical officer to the Liverpool Victoria Legal Friendly Society at Great Yarmouth, a society which systematically practises canvassing for the purpose of procuring patients, and with approving and acquiescing in such canvassing." The particulars will be found fully reported in our present number and may be assumed to be familiar to our readers. The gravity of the charge against the medical practitioner involved may be gathered from the eminence of the counsel engaged to represent him, and, as we have said in a leading article upon the situation, it is no small testimony to the ability with which the case was conducted by Dr. A. G. Bateman that in spite of the opposition of such counsel he secured all his points.

Among the most important acts of the Council was the appointment, on the motion of Dr. McVail, seconded by Mr. Young, of a Special Committee to prepare a report on the differences between certain licensing bodies on the one hand and the General Medical Council on the other. The questions at issue have regard to the conditions of preliminary study and the institutions and schools in which the required courses may be taken. The report will be considered at a special meeting of the General Medical Council, when the Council will decide what action shall be taken, and especially on the question of an appeal to the Privy Council. This resolution promises to make the recent session of the Council a memorable one. The majority by which it was carried was substantial, but the minority included members who cannot be disregarded, and not a few who do not sympathise with the Conjoint Board of England in their refusal to submit their list of institutions for teaching the

ancillary sciences for approval by the General Medical Council. It is not easy, after all that has passed, to see how the Special Committee can stop short of recommending an appeal to the Privy Council, but the step is so serious and the justification of it so doubtful that we venture to hope that some other way out of the *impasse* may even yet be discovered.

Sir William Turner was re-elected President of the Council unanimously for a further term of five years.

THURSDAY, NOV. 28TH.

THE Council met and resumed the work of its winter session, Sir WILLIAM TURNER, President, being in the chair.

*Great Yarmouth Club Question: the Case of Dr. Robert Rendall.*

The first business was the consideration of the case of Robert Rendall, of 19, St. Peter's-road, Great Yarmouth, registered as M.B., Mast. Surg. 1893, Univ. Edin., who had been summoned to appear before the Council to answer the following charge as formulated by the Council's solicitor:—

That you have been guilty of infamous conduct in a professional respect, particulars of which are that you have accepted and continue to hold the appointment of medical officer to the Liverpool Victoria Legal Friendly Society at Great Yarmouth, a society which systematically practises canvassing for the purpose of procuring patients, and that you have approved or acquiesced in such canvassing.

Dr. A. G. Bateman, with Mr. Hempson, attended to conduct the case for the Medical Defence Union who were the complainants.

Dr. Rendall had for his legal representatives Mr. Lawson Walton, K.C., M.P., and Mr. Charles Matthews, instructed by Mr. J. Tickle, solicitor.

Mr. WINTERBOTHAM, solicitor to the Council, read the terms of the charge.

Dr. BATEMAN, in opening the case for the complainants, said that questions were raised here which were of the very greatest import, not only to the medical profession, but also to certain societies like the Liverpool Victoria Legal Friendly Society and the National Medical Aid Company. The case turned upon the question raised by the resolution of the Council of June 6th, 1899, in which they expressed strong disapproval of medical practitioners associating themselves with medical aid associations which systematically practise canvassing and advertising for the purpose of procuring patients. The system of these medical aid societies was to plant themselves in a city or town and send their agents canvassing for patients from door to door quite irrespectively of whether the people in the houses were or were not able to pay ordinary medical fees and quite irrespectively of whether or not they already had a medical attendant. Where the medical practitioners in the district agreed to this arrangement there was no difficulty, but where they disagreed and objected to acting for these societies then men from the outside were planted in the district. Many complaints were of course received and the Council inquired into the subject and in the end passed the resolution to which he had referred. After that the National Medical Aid Company found it exceedingly difficult to obtain medical officers, and what he was directed to say was that they associated themselves with the Liverpool Victoria Legal Friendly Society, a society which was a sort of burial club or insurance society. The result was that the persons who were canvassed for insurance were also canvassed for medical aid; they were asked would they not like to join the "doctor's club" as well as the life insurance. In this case Dr. Rendall's club was a branch of the National Medical Aid Company. It might be said that Dr. Rendall's club did not canvass and that therefore Dr. Rendall could not be brought within the terms of the resolution, but it would be seen that Dr. Rendall's name had been specifically mentioned in the advertisements. In the case of Mrs. Wilkins she was asked to put herself and her baby into Dr. Rendall's club; the canvasser said it was Dr. Rendall's club. In other instances there was distinct evidence of touting on behalf of Dr. Rendall. In one case the canvasser said to the woman that the more members the better for Dr. Rendall. One person asked whether she could join the burial club without joining the "doctor's club" and she was told that she must join both or none. It might be said that

the canvassers acted without the authority of the society, but that was no defence here because the moment Dr. Rendall heard of the affair it became his duty to resign. Dr. Rendall could not, moreover, plead ignorance, for the practitioners of Yarmouth had been at great pains to bring the facts before him and to persuade him to give up the appointment.

Mr. WILLIAM EDWARD WYLLYS, L.R.C.P., L.R.C.S. Edin., of Great Yarmouth, then gave evidence in terms of a statutory declaration he had made on April 27th, 1901. He explained that in March, 1896, the practitioners residing in the Yarmouth portion of the borough of Great Yarmouth with one exception united in a local medical association called the Great Yarmouth District Committee. At the time three industrial assurance companies were actively conducting medical aid work in the town—namely, the London and Manchester Assurance Company, the Liverpool Victoria Legal Friendly Society, and the Refuge Assurance Company. Each society, he was informed, had a different system of working its medical aid branch, but the effect was the same so far as the canvassing was concerned; the private patients of practitioners were solicited directly for the insurance company and indirectly for the medical officer attached to the medical aid branch. All the members of the local medical association who held or had previously held appointments of this nature were satisfied that when medical aid was managed by these industrial assurance companies as an adjunct to their ordinary business it was impossible for either the medical officer or the company to prevent their agents, who were paid by commission on the amount of the business introduced by them, from using the medical aid as an inducement to attract custom to the life insurance department. From the very formation of the local medical association it was unanimously agreed that no member should canvass, or knowingly permit others to canvass on his behalf, for patients and that no member could therefore consistently act as medical officer to any of the medical aid departments carried on as described. Mr. Charles O'Farrell resigned the position of local medical officer to the London and Manchester Assurance Company, but the company appointed another gentleman whom they brought into the town for the purpose. This gentleman left shortly afterwards and the position was then taken over by Dr. Herbert Collier who thereupon became medical officer to all the medical aid societies conducting business in this part of the borough of Great Yarmouth. After the passing of the resolution of the Council in 1899 Dr. Collier wrote to him as secretary of the local medical association that in view of the resolution he felt obliged to resign the whole of his appointments. The London and Manchester Assurance Company and the Refuge Assurance Company at the expiration of Dr. Collier's six months' notice abandoned the medical aid section of their business. The Liverpool Victoria Legal Friendly Society did not, however, follow that course. Dr. Rendall succeeded Dr. Collier as the medical officer to the company and its auxiliary company, the National Medical Aid Society. As the medical aid work carried on by the Liverpool Victoria Legal Friendly Society through its auxiliary company and Dr. Rendall, its medical officer, was in the opinion of the local medical association contrary to the resolution of the Council, on May 18th, 1900, witness, acting as secretary, wrote to Dr. Rendall calling his attention to the objectionable features inseparable from his appointment. Dr. Rendall subsequently saw the president of the association and witness and discussed the position. In view of the fact, however, that Dr. Rendall was bound by his engagement to act as medical officer for 12 months from the date of his appointment no definite action was taken by the local medical association. The 12 months expired in February last. On Dec. 19th, 1900, witness wrote to Dr. Rendall inquiring if he intended relinquishing his appointment on the expiration of the 12 months, but nothing satisfactory had been arranged and Dr. Rendall still retained the appointment. At the interview with Dr. Rendall it was pointed out to him that the body for whom he was acting was supported by a general indiscriminate canvass by paid canvassers, that the medical aid branch was used as an attraction to induce people to take life policies, and that other members of the local profession had previously held the same appointment but had relinquished it in consequence of the resolution of the General Medical Council and in deference to the opinion of the Great Yarmouth District Committee. In reply Dr. Rendall denied that there had been systematic canvassing

and stated that the agents of the society worked only amongst the poor and that he had the power of refusing any candidate whom he deemed unfit by reason of his state of health or of his social position. On June 11th, 1900, Dr. Rendall wrote to say that he had carefully questioned the agent and collectors and they all strongly denied that there was any systematic canvassing carried on.

In cross-examination WITNESS said that in the letter of June 11th, 1900, Dr. Rendall asked to be furnished with the names of the party or parties who were alleged to have been canvassed, but witness did not think that the association would have been justified in giving up the evidence in its possession.

Mr. A. H. MOXON, ex-president of the local medical association, who was present at the interview with Dr. Rendall, gave an account of what took place.

Dr. BATEMAN then read a number of statutory declarations as to alleged instances of canvassing by agents of the society and as to what was printed on "the doctor's card." He also read a declaration by Mr. Charles O'Farrell, L.R.C.P., L.R.C.S. Edin., of Norfolk-square, Great Yarmouth. Mr. O'Farrell said that he was satisfied from his experience that where medical aid departments were managed by industrial life insurance companies as an adjunct to their business it was quite impossible for either the medical officer or the company to prevent the agents from using the medical aid as an inducement to a tract members to the life insurance department. Dr. Herbert Collier, of 21, South Quay, Great Yarmouth, made a declaration to the same effect, as also did Dr. Henry Blake, of Regent-road, Great Yarmouth. Mr. George Horne, local superintendent at Great Yarmouth of the Refuge Assurance Company, stated in a declaration that policy-holders had permitted their policies in that company to lapse and joined the Liverpool Victoria Legal Friendly Society, giving as a reason that the latter offered medical aid to its members.

This completed the case for the Medical Defence Union.

Mr. LAWSON WALTON then addressed the Council for Dr. Rendall. He contended that the resolution of 1899 was not intended to proscribe medical aid associations, but only to put down systematic canvassing for patients and he submitted that in this case there had been nothing which could be so described. The friendly society and the medical aid society were distinct entirely in their origin and history. The latter made no profits. Of the money collected 80 per cent. went to the medical officer, 10 per cent. was represented by the expenses of collection,  $7\frac{1}{2}$  per cent. by office expenses, stationery, &c., and  $2\frac{1}{2}$  per cent. by central management expenses. The staff of agents and collectors were engaged for the insurance business and were paid for the work they did in that connexion and not for the work in connexion with the medical aid society. Not only so, but the staff were expressly told that they must not canvass for the medical aid society. When complaint was made as to alleged canvassing Mr. Cully, the district manager, called the collectors together and questioned them, and they insisted that there was absolutely no foundation for the allegations. Dr. Rendall also saw them and they made the same denial to him. Further, he thought the correspondence showed that from the first Dr. Rendall was perfectly honest in discountenancing canvassing and in his desire to act within honourable professional lines.

Mr. PETERS, chief clerk to the Liverpool Victoria Legal Friendly Society, was the first witness. In examination by Mr. MATTHEWS he said that the membership of the Liverpool Victoria Legal Friendly Society was about 2,500,000, and that of the National Medical Aid Company 150,000. The medical officers employed numbered about 2000. There were no canvassers for the medical aid society, only collectors for the friendly society, and the instructions to these were that they were not to do any canvassing for medical aid.

The PRESIDENT called witness's attention to a card of the National Medical Aid Company which contained the name of the district and spaces for the name of a collector and a medical man. Witness explained that the name of a medical man would be written in by the collector, but only after a person joining the Victoria had elected to have medical relief. The collector collected for both societies, and both paid him something. He got his collecting commission from the Liverpool Victoria Legal Friendly Society and a small percentage from the National Medical Aid Company.

Further examined by Mr. MATTHEWS: The entrance fee of the National Medical Aid Company was 6d. and the charge for the card was a penny. The Victoria was a friendly society

entirely. It was not a business carried on for profit. The medical aid society was conducted on the same principles.

Cross-examined by Dr. BATEMAN: It was quite possible that the collector started out with a policy in one pocket and a card in another. The cards were supplied from the London office. There had been some difficulty since the war in getting medical officers. When there were vacancies for them these were not advertised in the medical papers but in the public newspapers. The latter and not the former, he thought, were the best for getting men for their vacancies. The advantages of medical aid were generally brought to people by neighbours who were members recommending others to join.

By Sir WILLIAM THOMSON: Any person could be a member of the medical aid society, although not insured in the Victoria.

By Mr. TOMES: Although there were 2000 medical officers for the Victoria that did not mean that every medical man connected with the Victoria also did work for the medical aid society.

By Dr. LOMBE ATTHILL: Witness had not calculated how much the 10 per cent. of payments from 150,000 members which went for the management amounted to. He would take it that the sum would reach about £3650, and he would also take it that the 2½ per cent. which the management got would amount to £900 or so a year.

By Mr. MUIR MACKENZIE: He had not brought details, but he thought that the percentage of persons insured in the Yarmouth branch of the Victoria who were also members of the medical aid society would be a little higher than the general 6½ per cent., because Dr. Rendall was very popular.

By Dr. GLOVER: A suggestion from a collector to join the medical aid society would be contrary to instructions. The object in establishing that society was a purely philanthropic one. Doubtless there were Foresters and Oddfellows among the members of the society, as there was no hindrance to such joining it. He was not aware that some friendly societies had given up their medical aid branch after becoming aware of the Council's resolution on the subject.

Re-examined by Mr. MATTHEWS: Experience had shown that the 10 per cent. for collection was actually required, and there had been no profit; consequently there was absolutely no motive for the Victoria Society to extend the medical aid business. There was not a single person who could canvass for the medical aid society without breach of duty, and as a director he had to say that his board were doing their best to conform to the requirements of the General Medical Council.

Mr. WILLIAM CULLY, district manager at Great Yarmouth of the Liverpool Victoria Legal Friendly Society, and also manager for the National Medical Aid Company, stated that on receiving from the head office in London intimation of the General Medical Council's resolution on the subject of medical aid associations he had called a meeting of his collectors and had read the letter to them. When correspondence about Dr. Rendall's position arose he questioned the collectors, and all of them utterly denied any instance of canvassing for medical patients. There had been no canvassing for the medical aid society, and that was in obedience to his orders. The people who belonged to the society were very poor, earning perhaps from 10s. to 20s. a week.

Cross-examined by Dr. BATEMAN: Witness did not think that the collectors for the Victoria Society asked whether members of that society required medical aid, neither did he think that the collectors showed the card of the medical aid society. It became known in a general way that the Victoria Society had a medical aid society connected with it, and new members were brought through recommendation only.

A large number of the witnesses I brought forward to-day have proved that these people had their own doctors?—I cannot account for it.

Asked by Dr. GLOVER how the society in Yarmouth managed to confine themselves to the poor, witness replied that it was only natural that the collectors should go to the poorer class, because the money that had to be paid was so small. The society, however, did not give any instructions to avoid the better-class houses; in fact, they gave the collectors a free hand.

By Sir JOHN TUKE: About 2000 of the members of the Victoria Society in Great Yarmouth belonged to the medical aid society. The income was about £475 a year, but two medical men had to be paid out of that.

By Mr. BALL: Persons joining the medical aid society were not entitled to benefit until they had paid for seven weeks.

By Dr. LITTLE: Such persons must be persons earning not more than 30s. a week.

The PRESIDENT: Are we to understand that there is a wage-limit?

The WITNESS: We are not allowed to take people with wages above 30s. a week.

By Mr. HORSLEY: He could not say if this wage-limit applied to all districts or to Yarmouth alone. He thought that instructions were given from headquarters that they were not to take persons earning more than 30s. a week. Asked how he ascertained the earnings of the people he replied that, as a rule, he asked them about their income when he visited in order to verify the collector's report that they had joined the medical aid society.

By Dr. BRUCE: Have you ever struck a man out because of the wage-limit?—I do not know.

By the PRESIDENT: The society did not require Dr. Rendall's whole time and service. They did not interfere with his private practice.

Re-examined by Mr. MATTHEWS: One of the rules was that no person could join the medical aid society unless he was healthy, and he could not get benefit until after seven weeks. It was no advantage to the Victoria Society to run the medical aid society. He personally got 2½ per cent. of the income and beyond that he had no interest in it whatever.

In answer to Mr. HORSLEY, who asked who was the judge of good health, witness stated that the collectors' instructions were that they were to see each person; then he saw each person for himself, and if there was any doubt about the healthiness of anyone he sent a report to the medical officer who had the power of rejection.

By Mr. MATTHEWS: Have you ever heard it suggested that any of your collectors put a person on the benefit at once?—No, sir; I have never sanctioned anything of the kind.

Mr. PETERS, recalled, and questioned as to whether the central board of the National Medical Aid Company had issued instructions to their district managers that they were not to accept members unless their earnings were below 30s. a week, stated that verbal instructions had been given respecting the matter just as occasion arose. In the case of Mr. Cully witness believed that that gentleman was informed that he must not take cases above a certain limit. 30s. was Mr. Cully's limit for his district. The central board must leave the fixing of the limit to the local managers. It would be impossible for the board to fix a general wage-limit and none had been fixed by them.

By Dr. LITTLE: Some of the directors of the Victoria Society were also directors of the medical aid society.

By Dr. GLOVER: There were two London offices, but he would not call the one commercial and the other philanthropic. He would call them both the same—mutually friendly. The aid society had been formed in a time of emergency as a company and it had remained a company ever since, though not in the commercial sense.

By Mr. TOMES: They were under the Companies' Acts.

By Sir WILLIAM THOMSON: There were no shareholders in the Victoria Society. There was a committee of management, of which each member was paid salary as voted at the annual meeting of the society. The directors of the medical aid society were paid a small sum for their attendance at the board.

Dr. RENDALL was next examined. In answer to Mr. WALTON he stated that he had practised in Edinburgh, Ipswich, and the north of Scotland. Then he came to London and when looking out for an appointment obtained the one which he at present held at Great Yarmouth through an advertisement in a daily newspaper. So far as he was aware, in the work which he was carrying on he was not interfering with other medical men in the district. The class of people who received benefit through the medical aid society was not the class who would pay medical fees. He had been very distinctly assured by the local manager of the Victoria Society that there was no canvassing by the collectors of that society for medical relief members. He had received a similar assurance personally from each of the canvassers of that society. Moreover, he had frequently asked his patients if they had been canvassed, and they said that they had not; that they had been recommended by neighbours. When the Council's solicitor

wrote to him he emphatically denied the suggestion that he had approved or acquiesced in canvassing for patients, systematically or in any other way. He certainly had not had the slightest wish to utilise the insurance machinery to secure private patients for himself.

Cross-examined by Dr. BATEMAN: In his interview with local medical men it had not been put to him directly that practitioners who had held office under the Victoria Society had resigned because, after the action of the General Medical Council as regards medical aid associations, they could not continue in office. He might have gathered that, but not distinctly. He had never taken any great interest in the question of medical aid societies. The salary he got for the first year he was in Yarmouth was about £150.

By Mr. HORSLEY: He was not quite aware that there was a wage-limit in Yarmouth, but Mr. Cully had told him of the class of people he would have as patients. Mr. Cully had not stated any sum, but had said that if witness found any applicants for aid able to pay medical men's fees he was at liberty to strike them off his list.

The further hearing of the case was then put off until the next day, and

The Council adjourned.

FRIDAY, NOV. 29TH.

The Council met again, Sir WILLIAM TURNER presiding.

#### A Dental Case.

The Council proceeded to the further consideration of the case of Mr. Alexander Wood Donaldson, dentist, of 86, Whiting-street, Bury St. Edmunds, who was registered in the Dentists' Register as having been in practice before July 22nd, 1878. The Dental Committee reported that Mr. Donaldson had advertised himself for many years with the description R.D.S. R.C.S. Eng., and subsequently with the description R.D.S. Eng., but had apologised for what he had done, stating that he had erred through ignorance, and that he had withdrawn all descriptive letters from his advertisement and undertook not to use them in the future.

After the Council had sat *in camera* for a time the PRESIDENT announced that the Council, taking note of Mr. Donaldson's pledge with respect to the withdrawal of the false description which he had been in the habit of advertising and of his expression of contrition for the offence he had committed, had decided to proceed no further in reference to the facts proved against him.

#### The Degrees of Italian Universities: Recognition by the Council.

Discussion was resumed on the report of the Executive Committee on the medical degrees of the Italian universities. The report was in these terms, viz.:—

The Executive Committee report that Part II. of the Medical Act, 1886, having been applied to Italy by an Order in Council dated March 9th, 1901, application was made to the Privy Council, at the suggestion of the Education Committee, requesting that the Council might be supplied through the proper official channels with such information as to the existing regulations for medical qualifications in Italy as would enable the Council to fulfil its statutory duties under Section 13 (1) of the Medical Act, 1886.

This information having been supplied by the Privy Council, the committee have carefully examined the Royal decree of Oct. 8th, 1876, which applies to all Italian universities, and, having satisfied themselves that the regulations provide a sufficient guarantee of the possession, by Doctors of Medicine and Surgery of these universities, of the requisite knowledge and skill for the efficient practice of medicine, surgery, and midwifery, have resolved:—

"(1) That the degree of Doctor of Medicine and Surgery of all Italian universities should be recognised as entitling to registration in the Foreign List of the Medical Register.

"(2) That with reference to applications from Italian medical graduates for registration in the Foreign List, the Registrar be instructed to require the applicant to produce:—

- "(a) Satisfactory evidence of identity;
- "(b) Satisfactory evidence of good character;
- "(c) Satisfactory evidence that he is by the law of Italy entitled to practise medicine, surgery, and midwifery in that country;
- "(d) The diploma of Doctor of Medicine and Surgery of an Italian University;
- "(e) Satisfactory evidence in relation to the circumstances (1), (2), (3), set forth in Section 12 of the Medical Act, 1886."

[The circumstances referred to in Section 12 of the Act of 1886 are that the applicant is not a British subject, or that being a British subject the diploma or diplomas was or were granted to him at a time when he was not domiciled in the United Kingdom or in the course of a period of not less than five years during the whole of which he resided out of the United Kingdom, or that being a British subject he was practising medicine or surgery or a branch of

medicine or surgery in the United Kingdom on the said prescribed day and that he has continuously practised the same in the United Kingdom or elsewhere for a period of not less than 10 years immediately preceding the said prescribed day.]

Mr. HORSLEY moved that the report be referred back to the committee.

Dr. BRUCE seconded the motion.

Mr. HORSLEY said that although he considered that in this matter the Council had been treated by the Government with the grossest disrespect and contempt, he, of course, recognised that they were under the harrow and must submit. When they were ordered by the Government to do this thing they had no option but to comply provided they did their duty towards those gentlemen in the same way as they did towards the gentlemen who were educated in the universities of this country. In this report the Executive Committee said that they had come to the decision that the regulations of the Italian universities provided a sufficient guarantee of a person's qualifications to be entered upon the Register. Now he urged that no regulations by themselves could provide such a guarantee. In the case of the universities of this country the Council did not accept regulations as a guarantee, for they inspected and visited the examinations, and he wished to know whether the Executive Committee proposed to inspect and visit the examinations of the Italian universities. The scheme of these Italian regulations was constructed in 1876, since which year a good deal of water had flowed under the bridge. In this country they had entirely altered the curriculum. As to the conditions which the committee had applied, he did not think that they were at all satisfactory and, indeed, in his opinion, they were not worth the paper on which they were written.

Dr. MACALISTER said that although the regulations were dated originally in 1876 they had been revised from time to time since by royal decrees, and had really been brought up to date. As for the conditions to which Mr. Horsley took exception, they simply followed the lines laid down in the Act and they were not the choice of the Executive Committee. The regulations of all the Italian universities were on the same level and were laid down by the law of the land, so that there was no question of discriminating between one university and another. It was true that they did not propose to inspect the examinations, but they registered Indian and Colonial degrees without inspection of the examinations. If this Council were to refuse recognition merely because they could not inspect, the practitioner who applied was empowered by law to appeal to the Privy Council who might order this body to recognise the diploma.

Dr. GLOVER thought that Mr. Horsley should indicate what he proposed the Executive Committee should do. He was sure that all members felt that the mere reading over of regulations was a very unsatisfactory way of testing the sufficiency of an examination.

Mr. HORSLEY said that in his opinion colonial questions were not to be placed on the same platform as foreign questions. Foreigners did not treat us in the same way as our colonists and therefore they did not deserve the same treatment upon our part. As to inspection, if the Privy Council chose to order this Council to take up certain duties, the responsibility was upon the Privy Council and so upon the Treasury to provide the necessary expenses for those duties. The Council could not derive from the income which they drew from the registered practitioners of this country the money necessary for the inspection of the Italian universities and he maintained that this point should be laid before the Privy Council and that direct application should be made to it to defray the expenses of their inspection of the Italian universities.

Dr. McVAIL suggested that the opinion of their legal advisers should be taken as to whether they considered that inspection was a duty of this Council under the Act.

The PRESIDENT said that the sufficiency of the examination was a matter for the decision of the Council.

Mr. HORSLEY said that the Act of 1886 clearly laid down that the whole responsibility for recognising a diploma rested upon the shoulders of this Council and he contended that if they felt that responsibility to the universities in this country to the extent that they were obliged to inspect them, *a fortiori* they ought to inspect the Italian universities.

A vote was then taken, when 10 members voted for Mr. Horsley's motion to refer the report back to the committee.

and 11 voted against it, seven members declining to vote and three being absent. The motion was accordingly lost.

#### *The Standard of Preliminary Examinations.*

The Education Committee presented a second report on the steps taken for the improvement of preliminary examinations. In this report reference was made to steps taken in connexion with the examinations of the College of Preceptors, the Educational Institute of Scotland, and the Royal Colleges of Physicians and Surgeons in Ireland, and the committee proposed for the adoption of the Council the following list specifying the examining bodies in Great Britain and Ireland whose examinations in general education would be recognised by the Council as qualifying for the registration of medical or dental students from Jan. 1st, 1902, viz. :—

#### **I.—UNIVERSITY EXAMINATIONS HELD IN THE UNITED KINGDOM.**

##### **A.**

Final Examination for a Degree in Arts or Science of any University in the United Kingdom.

##### **B.**

##### *University of Oxford.*

Junior Local Examinations. (Certificate to be endorsed as fulfilling the Council's requirements.)

Senior Local Examinations. (Certificate to be endorsed as fulfilling the Council's requirements.)

Responsions. (Certificate to be supplemented by others showing that the required mathematical subjects have been passed.)

Moderations. (Certificates to include the required subjects.)

##### *University of Cambridge.*

Junior Local Examinations. (Certificate to be endorsed as fulfilling the Council's requirements.)

Senior Local Examinations. (Certificates to be endorsed as fulfilling the Council's requirements.)

Higher Local Examinations. (Certificates to include the required subjects.)

Previous Examination. (Certificates to include the required subjects.)

General Examination. (Certificates to include the required subjects.)

##### *Oxford and Cambridge Schools Examination Board.*

Lower Certificate Examinations. (The required subjects to be passed at one time.)

Higher Certificate Examinations. (Certificates to include the required subject.)

##### *University of Durham.*

Examination for Certificate of Proficiency. (The required subjects to be passed at one time.)

Senior Local Examinations. (Certificate to include the required subjects.)

##### *University of London.*

Matriculation Examination. (Certificate to include the required subjects.)

##### *Victoria University.*

Preliminary Examination. (Certificate to include the required subjects.)

##### *University of Birmingham.*

Matriculation Examination. (Certificate to include the required subjects.)

##### *University of Wales.*

Matriculation Examination. (The required subjects to be passed at one time.)

##### *Universities of Scotland.*

Preliminary Examination of the Joint Board of Examiners of the Scottish Universities for Graduation in Medicine and Surgery. (The required subjects to be passed at one or not more than two Examinations.)

Preliminary Examination of the Joint Board of Examiners of the Scottish Universities for Graduation in Arts or Science. (Certificates to include the required subjects.)

##### *University of St. Andrews.*

Final Examination for the Diploma of L.L.A.

##### *University of Dublin.*

Principal Public Entrance Examinations. (The required subjects to be passed at one time.)

Examinations for the First, Second, Third, or Fourth Year in Arts. (Certificate to be signed in the approved form by the Medical Registrar of the University.)

##### *Royal University of Ireland.*

Matriculation Examination. (Certificate to include the required subjects.)

#### **II.—GOVERNMENT EXAMINATIONS HELD IN THE UNITED KINGDOM.**

##### *Scottish Education Department.*

Examinations for Lower Grade Leaving Certificate. (The required subjects to be passed at one or not more than two Examinations.)

Examinations for Higher Grade or Honours Leaving Certificate. (Certificates to include the required subjects.)

##### *Intermediate Education Board of Ireland.*

Middle Grade Examination. (The required subjects to be passed at one time.)

Senior Grade Examination. (Certificates to include the required subjects.)

##### *Central Welsh Board.*

Senior Certificate Examinations. (Certificates to include the required subjects.)

#### **III.—EXAMINATIONS BY CHARTERED BODIES HELD IN THE UNITED KINGDOM.**

##### *College of Preceptors.*

Examination for a First Class Certificate. (The required subjects to be passed at one or not more than two Examinations.)

Preliminary Examination for Medical Students. (The required subjects to be passed at one time.)

##### *Educational Institute of Scotland.*

Preliminary Medical Examination. (The required subjects to be passed at one time.)

##### *Royal Colleges of Physicians and Surgeons in Ireland.*

Preliminary Examination. (The required subjects to be passed at one time.)

Sir JOHN BATTY TUKE in moving the adoption of the report gave a general account of the work of the Education Committee in this connexion. He said that it had been found impossible in the present state of secondary education in this country to raise the standard to that of the senior or higher grade examinations, but they had done a good deal to improve generally the quality of the examinations which they recognised. They had invited the various examining bodies to substitute to a very much greater extent than previously unseen books for prepared books, and to raise the standard of pass marks rather than to increase the apparent difficulty of the examination, and they had met with very great success in the establishment of these two principles all along the line. He might be asked whether the committee saw a chance of giving effect to a further rise in the quality of the examinations, and his answer would be that it was hopeless in the present chaotic condition of secondary education in this country. The responsibility rested with the Government, and he sincerely hoped that during next session of Parliament they would bring forward a strong and satisfactory measure which would benefit not only the medical profession but the country at large. In his opinion the Education Committee had done as much as it was possible to do in the circumstances and had made a very material advance in the improvement of the standard of the preliminary examinations. There was, however, a sad side of the question. It was quite possible that all their work might be futile because he noticed that in the regulations of the Conjoint Examining Board in England for 1902 it was stated that students were required to complete five years of professional study after passing a recognised preliminary examination and this preliminary examination was as recognised not by this Council but by the Examining Board. It was possible that the Examining Board would adopt the list of examinations now put forward by the Education Committee; it was possible that it might not; but it must be always remembered that it was open to anybody to do exactly as this Board proposed to do so far as their individual recognition of preliminary examinations was concerned. It was with a considerable amount of regret and sorrow that he saw this regulation, because he felt that the work which had engaged the attention of the Education Committee for the last five years might be rendered useless and futile.

Sir CHRISTOPHER NIXON seconded the motion. The announcement just made of the determination of the English Royal Colleges to adopt a list of recognised examinations of their own without any reference to the requirements of this Council was new to him and, he fancied, also to the other members of the Education Committee.

Dr. NORMAN MOORE said that there was no ground whatever for the statement which had just proceeded from Sir John Tuke; the subject had not even been considered by the Royal College of Physicians of London.

Sir JOHN BATTY TUKE said that he based his statement on the regulations supplied by Dr. Norman Moore last year for the information of the Council.

Dr. NORMAN MOORE insisted that there was nothing in these regulations which bore the interpretation put upon them by Sir John Tuke.

Sir JOHN BATTY TUKE, reading from the regulations, said that the student would be required to produce before admission to the several examinations a certificate of having

passed one of the preliminary examination in general education recognised by the Examining Board, a list of which might be obtained on application.

Mr. YOUNG said that the matter was not so new as Sir Christopher Nixon imagined, because he (Mr. Young) read out this paragraph at the last session of the Council and called attention to its importance. It might be that the Royal Colleges did not intend to depart from the list of this Council, but the point was that they claimed the power to depart from it at any time that they thought fit and consequently there was no guarantee that the standard of preliminary education would be maintained.

Dr. NORMAN MOORE, speaking for the Royal College of Physicians of London, said that they had the right, and they intended to retain it, of saying what should be the conditions of admission to their licence. They absolutely retained that in the fullest degree. They had not, however, discussed the question of having any other regulations with regard to the preliminary examination than those to which this Council had agreed. He would like to explain the clause read out by Sir John Batty Tuke. The Council had endeavoured to encroach upon the undoubted right of the Royal College of Physicians of London and of all the other qualifying bodies to see where the people had studied who proceeded to their licence. It therefore became necessary to frame their regulations in such a way as clearly to show that when they carried out the precise regulations of the Council they did not in the least give up any of these duties which were theirs before the regulations of the Council were made. He did not doubt that the qualifying bodies throughout the United Kingdom complied with the regulations of this Council because they had been so clearly demonstrated to be wise and just and in accordance with the best interests of education, but if they could suppose for a moment that, say, 20 years hence, the Council made some extremely unwise regulations in regard to education, would the Royal College of Physicians of London and the other qualifying bodies agree merely because they were the edict of this Council? No qualifying body could give up its responsibility. Its decision might be to follow exactly what this Council said, but none the less that was the result of its own judgment. With regard to this report of the Education Committee he cordially supported it. There was one detail, however, which he thought might be amended, and he moved, after the words "University of London, matriculation examination," to omit the words "certificate to include the required subjects." He thought that it would be wise to omit these words until the University of London had been communicated with.

Mr. BRYANT seconded this amendment.

On the motion of Dr. PAYNE the discussion was adjourned until next day.

*The Great Yarmouth Club Question: the Case of Dr. Rendall.*

Consideration of this case was then resumed.

Dr. Rendall appeared for further examination.

Mr. HORSLEY asked witness whether, when he received the names of persons who had furnished the Medical Defence Union with declarations, he went to those persons and asked them if they had been canvassed.

The WITNESS replied that he did not do so, but left inquiries to be made by his solicitor, Mr. Tickle. He did not know whether Mr. Tickle acted for the medical aid society.

Mr. HORSLEY reminded the witness that in a letter which he addressed to the President of the General Medical Council he offered to resign if a case of canvassing was made out, and inquired of Dr. Rendall if he had asked his solicitor whether these persons were canvassed.

The WITNESS said that he had. His solicitor had reported, but not in writing. He had been told through the solicitor's clerk that a number of persons alleged to have been canvassed had not been canvassed. He had not inquired as to whether all these persons were included and he had not visited any of them himself. He had not resigned because he considered that the allegations of canvassing had not been proved.

By Mr. MATTHEWS: It was not until Nov. 13th that any case of canvassing had been suggested officially, and the result of the inquiries which had been made showed that the declarations obtained by the Medical Defence Union contained statements which were untrue.

Three collectors for the Liverpool Victoria Legal Friendly Society—Mr. Harry Savell Mann, Mr. William Willett, and

Mr. Charles Walter Newark—were called next, and in turn they declared emphatically that they had carefully carried out Mr. Cully's instructions against canvassing for medical aid members or on behalf of Dr. Rendall. They also asserted that the allegations of canvassing by them made in the declarations put in by Dr. Bateman were absolutely untrue.

In answer to the PRESIDENT, Mr. NEWARK stated that when members were admitted to the insurance society for a small sum they did not need to undergo a medical examination. He believed that Dr. Rendall acted for both the insurance society and the medical aid society.

Several declarations were read by Mr. MATTHEWS and put in. These contained statements conflicting with the allegations in those submitted on behalf of the Medical Defence Union to the extent of showing that instead of members for the medical aid society being obtained by direct or indirect canvassing they were got by neighbourly suggestion or recommendation.

Mr. PETERS, who was recalled at the request of Dr. PETTIGREW, explained that the National Medical Aid Company was composed of 10 or 11 shareholders who got an annual present of about £10 each for directing affairs. About 1000 doctors did work for the company. He was secretary to the company and also a director of it.

This concluded the evidence.

The PRESIDENT said that as this case had evidently been made a test one—he did not think there would have been such an array of counsel otherwise—it had been resolved, although contrary to the usual procedure in penal cases, to hear anything in the nature of argument which Mr. Lawson Walton would care to urge and to allow Dr. Bateman an opportunity to reply on the whole case.

Mr. LAWSON WALTON thereupon submitted that the charge as framed against Dr. Rendall had not been proved. The evidence in support of it came from a class of persons whose statements if not altogether untrustworthy were usually not strictly accurate. There was conflict not only between the witnesses but between their statements, and the whole evidence was a mere morass and not to be accepted with any degree of confidence. On the other hand, they had the testimony of a higher class of witnesses who, moreover, had subjected themselves to cross-examination. The collectors' evidence had exonerated themselves and the organisation for which they acted, and he therefore claimed that the alleged systematic canvassing for medical patients had not taken place. As to Dr. Rendall's approval or acquiescence in such canvassing, that gentleman's evidence was dead against that. He therefore asked that the Council should come to the conclusion that the case had not been established, and in dismissing it to leave all the societies of a nature kindred to the Victoria and the National Medical Aid Company to continue to carry on their operations providing the authorities conducting them set their faces against canvassing for medical men. He was authorised to say that if the Council thought that the wage-limit at Yarmouth was not sufficiently rigid his clients were willing to adopt any new limit laid down in order that their operations might be confined to those people who were so poor that they would never employ any medical man of their own. Further, that as it would not be worth while to keep up a separate staff for the medical society which could only be worked through the Victoria Society his clients wished him to say that it would be better to let the medical society die out than to have a separate staff for it.

Dr. BATEMAN contended that the case had been proved absolutely in all its aspects. He admitted that it was a picked case, but it was picked because it embodied most of the objectionable characteristics that were involved in medical aid associations. The Medical Defence Union was determined to do its level best to stop advertising of medical men through these associations and it did not care how many thousands were involved and would not be frightened by their number. The profession were watching this particular case very carefully and he hoped that any decision the Council came to would be for the benefit of the profession.

The Council deliberated on the case *in camera*. On the parties being recalled the decision was announced.

The PRESIDENT, addressing Dr. Rendall, said: The Council have deliberated very carefully on your case, and they have come to the conclusion that the facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council. They have instructed me to

say to you that they feel it their duty to express their sense of the gravity of the facts which have been proved against you; but in order to give you an opportunity seriously to reconsider your position in relation to the Liverpool Victoria Legal Friendly Society and the National Medical Aid Company, Limited, they have adjourned the further consideration of the charge until the next session, when you will have to appear and to satisfy the Council as to your conduct in the interval.

The Council adjourned.

SATURDAY, NOV. 30TH.

The Council resumed, Sir WILLIAM TURNER, President, being in the chair.

#### *The Standard of Preliminary Examinations.*

The debate on the report of the Education Committee with reference to the steps taken for the improvement of preliminary examinations was resumed.

Dr. PAYNE expressed the view that it would be a mark of partiality if they made the exception proposed by Dr. Norman Moore in his amendment in the case of the University of London.

Dr. MACALISTER pointed out that if there were any case of hardship it could be dealt with by the Students' Registration Committee.

Dr. WINDLE congratulated the Education Committee on the work which it had accomplished. He was a member of the committee which advised the Board of Education on secondary education and he could assure the Council that he and his colleagues attached a very high value to the report of the Education Committee. They often heard in the medical papers loud cries to that Council to raise the standard of preliminary education. Now, he wished to point out that any person who had carefully studied the matters relating to secondary education must perceive that it was perfectly impossible for that or any other body suddenly to raise the standard of preliminary education. No body could, without producing a dangerous dislocation in educational matters, go too far in advance of the schools, and at the present time he thought they had brought their standard up quite as high as the standard of education in the schools of this country would bear. If they were to attempt to do anything further they would produce a sudden decrease in the number of persons passing the preliminary examination for medical education, which he thought would have a serious effect upon the necessary output of medical men for the service of the country. What the Council could do, and what, it appeared to him, the policy of the Education Committee had been, was gradually to endeavour to screw up the standard and to draw with them the teachers in the schools. That was a policy which would certainly succeed; the other was one which must inevitably fail, and he hoped that no pressure from the outside would lead the Education Committee to attempt to take any very sudden step in the matter or to pursue any other course than that they had pursued. In his opinion, the secondary education of the country as a whole required a stimulus of exactly the character which had been imparted to it by the Education Committee.

Dr. PYE-SMITH said that he was not aware that the University of London asked for the exceptional treatment which Dr. Norman Moore proposed for it. This examination was used partly as an introduction to further study and partly as a leaving examination for schools, and its future was now under consideration. The two classes of candidates were so different that the Senate of the University was at the present moment considering whether it would not be better to have two examinations, one for internal and the other for external students. He did not think that there would be the least difficulty in bringing the examination into harmony with the regulations laid down in this report.

In view of the statement of Dr. MacAlister Dr. NORMAN MOORE agreed to withdraw his amendment.

The debate therefore proceeded on the motion for the adoption of the report.

Sir CHRISTOPHER NIXON said that the object of the report was mainly to effect a uniform standard of preliminary training, and in order to secure that it was necessary that the regulations should apply to every university and licensing body throughout the kingdom. The body which declined to

conform with the regulations was the Conjoint Examining Board in England, which stated that it would only accept the examinations of institutions recognised by itself. What would that lead to? Had that Council any guarantee that this body would adhere even to the present arrangement? There was talk about an understanding that the Conjoint Board would only recognise the examinations recognised by the Council, but there was no official communication on the subject. It would not be fair to the other bodies if that Council refrained from asserting its authority, if it had any authority in this matter. He contrasted with the action of the English Royal Colleges the action of the Irish Royal Colleges when the Council recommended that the examination of the latter should be discontinued. They did not write back to say that the Council had no power in the matter, and that they took their stand on their ancient charters and privileges. The Irish colleges had quite as many charters as the Royal College of Physicians of London. They had two or three from William and Mary and several others. They had exactly the same rights as the English Colleges, and they were determined to exercise those rights, but not in antagonism to the work which that Council were doing to raise the status of the profession and the character of medical education. They put themselves in communication with the University of Dublin and the Royal University and the Intermediate Board, and when they found that these bodies could not help them they reorganised their own board and improved the system of examination, and when they presented an account of what they had done the examination was continued. Were the Irish representatives to go home and say that that Council had one rule for Colleges in Ireland—a very drastic rule, that they must conform to the regulations or their examinations would be struck off the list—and quite another rule for Colleges in England? He assured the Council that unless they were prepared to deal with this matter in a uniform spirit of fairness he would tell his College and the Royal University with which he happened to be connected that that Council were not disposed to act with uniformity towards the universities and corporations throughout the kingdom, and that they were not necessarily obliged to adhere to, or follow, any of their recommendations. That was the situation. For their own dignity that Council should have their position defined. If they had not the power let them get the power; if they had the power let them exercise it.

Mr. BRYANT said that while the English Colleges adhered to their rights they had been strictly loyal to that Council. It was at his instance that there had been an inquiry made as to the value of the special examination held by the College of Preceptors. With regard to these preliminary examinations they had accepted all the recommendations of the Council and no one had any right to suggest that they meant to do otherwise than work with the Council in the future as they had done in the past. They had been loyal in the past and they would be loyal in the future.

Dr. NORMAN MOORE assured the Council that his College had nothing but the profoundest respect for every body represented there. He would not enter into the question whether William and Mary, from whom the Irish College got their Charter, or Henry VIII., who lived a little earlier, from whom the English College obtained theirs was most mischievous to the human race. His College based their case upon its justice as considered at the present day. Rights such as theirs were in the strictest sense a trust and it was of the essence of every trust that the people holding it should be rendered accountable and they were perfectly ready to be rendered accountable. They considered that they had a trust for the public, and that was the way in which they looked upon their duties. When a trust was imposed upon a man he was bound to give it up to nobody else but to discharge it according to his conscience, and that was what his College had endeavoured to do. It had been said that they acted independently of the Council, and it had been tried to be made out that they were endeavouring to put themselves in a different position from every other body. Anything that that Council recommended was carried out by the bodies of their own act. The Council said so and so and the body considered it and adopted it; that was the procedure. They were all independent bodies. If the statute had given the Council power to command a thing to be done then the bodies would not be in that position. It was in the highest degree desirable that they should all agree to some things and the

subject of preliminary education was one of them. The English Colleges were alive to the fact that it was desirable that all the qualifying bodies should agree to this, and they themselves had agreed to it. It was open to any person to apply to the Conjoint Board for the list of examinations recognised by the two Colleges, and they would find that it was absolutely identical with that of the Council. But, said Sir Christopher Nixon, what security had they for this. They had no security except the character of the Colleges. Had they in the past endeavoured to do everything for their own private interest and nothing for medical education? Had not exactly the contrary been their career? That was the only security they could have and no other security ought to be given.

Dr. PETTIGREW insisted that this was the parting of the ways, and that if the English Colleges were allowed to do this thing their example would be followed by other bodies.

Dr. GLOVER, speaking as one who would soon cease to be a member of the Council, said that he greatly regretted the tendency to the creation of questions which required annual attention and annual discussion, and he hoped this question would soon pass from that category. He thought they should try to bring to a point the different elements in the question. For one thing, he would like to know why one conjoint body, like that of the English Colleges, should be so entirely dissociated from other bodies which were practically in the same position. Sir Christopher Nixon said if they had not the powers let the Council get them, and if they had the powers let them use them. Would Sir Christopher Nixon tell them when they were likely to get the powers? He thought it unwise to speak as Sir Christopher Nixon had done. His opinion was that the Council should make the best use of the powers they already possessed. There was no prospect within the life-time of any member sitting at that table of seeing the Council endowed with such powers as Sir Christopher Nixon desiderated. It had been the constant practice and pride of that Council to refer to the authorities of the individual bodies and it had been the policy of the Council not to interfere with them but to leave as much as possible intact the individual responsibility and authority and functions and dignity of these bodies. He held that they would not get the legislation Sir Christopher Nixon referred to and he further held that if that Council went to the Privy Council to ask it to adjudicate between itself and the Colleges the former would come to terrible grief. He would quote to the Council the words of one of its distinguished members, Sir James Paget, who said: "I hold that our great anxiety, our great strife, should be to be a self-governed profession, to know our own wants and not to go to others to help us, to find out the remedies for ourselves, to find out by careful, patient controversy and mutual concessions how we may without any external help bring about the results which the best and the largest number of us wish for. Let us be, as all highly cultivated persons should be, self-governed. It tells of feebleness, of cowardice, and want of self-reliance when we want to go to any Parliament living to help us." He wanted to know what the English Colleges had done that they should be treated with such criticism and suspicion as they had been treated with in the course of these debates. Would the Irish Colleges, who had been so much in evidence in debate, say that the English Colleges were a refuge for illiterate or incompetent students? He had never heard that said, and there was no evidence of anything of the kind. Was there anything in the proceedings or minutes of that Council to show that there was any defect in the science teaching of the candidates of the English Colleges? In fact, was there anything to justify this persistent attack upon the English Colleges for asserting their own functions and independence as other bodies had done? He should like to hear these questions answered.

Mr. BALL wished to point out that the Royal College of Surgeons in Ireland had made no pronouncement on the subject before the Council, but when discussion arose on other business on the programme he would crave liberty to answer what Dr. Glover had said.

Dr. ATTHILL suggested that the question had now been discussed very largely and it would be raised again on Monday or Tuesday, and therefore he thought consideration of it should end for that day. He moved the closure.

The PRESIDENT reminded the Council that on a previous occasion when he at once put to the vote a motion for the closure representation had been made to him that he might first have afforded the mover an opportunity to reply.

Perhaps, therefore, before proceeding to a vote now Sir John Batty Tukey should be allowed to reply if he had anything to say.

Sir JOHN BATTY TUKE wished to say only a few words. He made no apology for having made the remarks he did when presenting the report, for he thought they had led to a very important debate and brought out important information from the representatives of the two Colleges. He inferred from what Dr. Norman Moore and Mr. Bryant had said that they gave a promise or undertaking that the Royal Colleges would not go outside the list of qualifying bodies which the Education Committee had laid before the Council. He wished to ask Dr. Norman Moore if that was not right.

Dr. NORMAN MOORE: The question is hardly a question to be put in that sort of way and I decline to answer.

Sir JOHN BATTY TUKE: I do not ask for an answer. I infer that, rightly or wrongly, from the statement of these two gentlemen; but the main difficulty is that the Royal Colleges demand for themselves an examination in general education recognised by the Examining Board for England. The same action would be open to any other body, and it would be absolutely impossible for the General Medical Council or its committees to maintain a standard of examination if other bodies took the same line.

The motion for the closure having then been carried,

The report was unanimously agreed to.

#### *Prevention of Personation.*

The Council proceeded to the consideration of the proposed regulations for the prevention of personation.

Mr. HORSLEY, as chairman of the Personation Committee, explained that the regulations to be now brought forward formed part of a general scheme which had been discussed by the Council in previous sessions. He moved that they should go into committee and consider the proposals one by one.

This motion was agreed to.

Mr. HORSLEY moved the adoption of the following proposed regulation:—

1. No registration on the Students' Medical, or Dental Register respectively shall be effected unless application has been made for that purpose on one of the forms included in the accompanying schedule.

The PRESIDENT asked how far the forms in the schedule were altered.

Mr. HORSLEY replied that they were altered to this extent, that they contained a provision that the person applying for registration must fill up the form in his own handwriting.

Dr. WINDLE remarked that the schedule would in no way prove that the person presenting a pass certificate to the registrar was the same person who passed the examination. That, he said, was a most important point, as it was within his own knowledge that a "coach" had been up and passed the examination for his pupil, which he thought was quite an easy way of getting through. He of course excluded university examinations, because a pupil who passed one of these was afterwards seen at the classes. However, it was possible to have an examination conducted outside of the universities passed apparently without detection, and what he should like to see would be the adoption of some means by which a body whose examination had been passed might have an opportunity of comparing the handwriting of the examination papers and that of the person who had filled in the form of application.

Dr. MACALISTER said that that would be a very desirable thing to secure if it could be secured, but it was practically impossible that it could be. The papers that a candidate took and wrote himself for his examination were not preserved, and it would be practically impossible to send back an application form where he might have been examined years and years before and ask somebody to compare the handwriting. He agreed that personation was a fact at these preliminary examinations, and mentioned that one actual case of the kind had come before the Students' Registration Committee during the present session. So far as the form Mr. Horsley wished them now to adopt was concerned it was neither the form that was in existence now nor was it in accordance with the law.

The PRESIDENT pointed out that these regulations were to have been considered in consultation with the registrars—Mr. Allen their own registrar, and the registrars of the Branch Councils of Scotland and Ireland.

Mr. HORSLEY: Oh, yes, and there is nothing new. The schedule will have to be altered in several particulars.

Dr. MACALISTER: Quite so; made a different schedule.

Mr. HORSLEY: The alterations in Form 1 are verbal, but we can get the form corrected and brought up to date, and in its amended shape it can be brought up with the report of the committee.

The words "as revised to date" were added after "schedule," and the proposed regulation in this amended form was agreed to.

Mr. HORSLEY said that the next proposed regulation was simply a statement of what was the custom at the present time. It was purely formal and was as follows:—

II. All forms of application for registration, duly signed and presented, shall be bound, indexed, and preserved by the Registrar of the Branch Council to whom they may be presented.

On being seconded by Dr. REID this regulation was at once adopted.

Mr. HORSLEY next moved:—

III. No certificates of registration of any name on the Medical or Dental Register shall be given except a letter in the Form 8 of the accompanying schedule.

He explained that the present practice was to issue certificates of registration. The committee thought there was great danger attached to this system. The registrar held that if any person presented himself and asked for a certificate of registration, at the same time paying the fee, he was obliged to give a certificate stating that such-and-such a person was registered. It was a fact that the Council had never authorised the issue of such certificates, and it was equally a fact that certificates had been obtained and used for personating purposes. To meet the case the committee proposed that a letter in the following terms should be granted by the registrar in substitution of a certificate on request:—

General Medical Council, 299, Oxford-street, W.

DEAR SIR, I hereby certify that the following ——— is a true and correct copy in the (Medical or Dental) Register of the current date, and that this certificate is only valid until the next annual issue of the Register.—I have the honour to be, yours very obediently,

Registrar of General Medical Council.

Anyone producing such a paper as that could not hand it out as a diploma or anything of that sort, and the committee thought the registrar should only write such a letter upon an immediate request. They believed that the danger of personation would in a great measure be avoided if their suggestion were adopted. Some receipt should be given for the £5 handed over the counter, but the committee agreed that it should be a receipt in ordinary terms, not one in the form of a certificate.

Dr. REID seconded the motion.

The PRESIDENT asked if they were to understand that when a person applied for registration as a practitioner, and paid his £5, the only evidence that he had been put upon the manuscript Register was a receipt stating that he had paid £5.

Mr. HORSLEY: No; if he required evidence of registration he would ask for a letter and the registrar would fill up the letter in the proposed form.

The PRESIDENT: A man who comes for registration has a right to ask under the Act for a certificate, and, what is more, we have no right to refuse it. I do not see how we can get past that. Every registered practitioner should have some evidence that he is registered. For instance, when a young practitioner is challenged, say, in the witness-box he ought to have evidence in his pocket and not be required to write to the registrar for it.

Mr. HORSLEY: The feeling of the committee was that young practitioners ought not to have this evidence in the pocket, for the young practitioner very often loses his certificate.

The PRESIDENT: But this certificate is only a temporary one; it is only necessary until the following year when the name appears on the Register.

Dr. MACALISTER said that the certificates now issued were certificates for a life-time. An applicant should get a certificate when he first registered and he should preserve it. To give a letter such as proposed would only multiply labour and do no good.

Sir CHRISTOPHER NIXON supported the view that a man on first registration should get a certificate.

Further discussion of the proposed regulation was interrupted at four o'clock—the usual hour for the termination of the Saturday sitting.

The Council thereupon resumed, and immediately adjourned till Monday.

MONDAY, DEC. 2ND.

The Council resumed work, Sir WILLIAM TURNER presiding.

Mr. George Brown and the Chair—*Electioneering Literature.*

The first business was the consideration of the following letter addressed to the President—viz.:

6, Gibson-square, London, N.,  
November 30th, 1901.

DEAR SIR WM. TURNER.—I beg to call your attention to the annexed cutting from the *British Medical Journal* of to-day's date, headed "The Gallery of the Council Chamber," from which I learn that, during the time I have had the honour of occupying a seat in the Council chamber, I have been flouted by you from the Presidential chair.

It may be due to my obtuseness but I have no recollection of having at any time been treated by you in a manner which would justify such a description.

I scarcely need say that if this description of your conduct as our President is allowed to pass unchallenged it must tend to lower the Council in public estimation, and I propose, therefore, at our next sitting, after the reading of the minutes, to ask you to make a public statement as to whether the paragraph in question correctly represents your attitude towards me.

I remain, yours faithfully,

(Signed) GEORGE BROWN.

"THE GALLERY OF THE COUNCIL CHAMBER."

"SIR.—Mr. Horsley could not give Mr. George Brown a better testimonial than to say he has been 'shouted down' in the Council chamber and 'flouted' by the President. This proves that Mr. Brown has done his duty without 'fear or favour,' and the electors, I have no doubt, will reward him by returning him and Mr. Jackson by a thumping majority. At the same time I am quite prepared to accept Mr. Horsley's statement without going in person to witness such a disgraceful and unedifying spectacle. If the profession is only true to itself in this election 'midwife registration' will receive its quietus, and its advocates a most salutary lesson. The issue is clear, and the best advice on the eve of the election is to vote, vote, vote for Brown and Jackson."

"I am, &c."

"Liverpool, November 23."

"ALEX. MCCOOK WEIR."

The PRESIDENT suggested that in the first place an opportunity should be given to Mr. Horsley of saying whether the words and expressions marked by inverted commas were a correct representation of what he had said.

Mr. HORSLEY said that he should have thought that the first step in this matter would have been for the President on the receipt of Mr. Brown's letter to have communicated the contents to him (Mr. Horsley) and asked him whether Dr. Weir's letter was a correct statement or not of what he had said. The whole of this incident was nothing but a squalid electioneering device and he could show that this letter of Dr. Weir's was nothing but a literary forgery and yet it appeared on the programme of business of that Council. He did not think therefore that the matter had been dealt with quite in the proper way. He made a speech at Liverpool in which he drew attention chiefly to the methods of the Direct Representatives in this chamber and the way in which those methods reacted unfavourably upon direct representation and upon the conduct of business and how those methods brought down the condemnation of the chair. As he could not obviously refer to any of the Direct Representatives in person he was obliged also to refer to his own experience, to mix the two together, in fact; but in order that there should be no doubt as to what he meant he made his statements entirely in support of one fact, or what he wished to be a fact—namely, the return of a general practitioner to that Council who should worthily represent the practitioners, who should not, as he stated and as would be found in one report of his speech, excite derision and contempt on the part of members of that Council.

The PRESIDENT: I am sorry, of course, to interrupt, but the question I put to you was whether those words and expressions correctly represent what you said?

Mr. HORSLEY: I am about to say that they do not. I am stating to the Council what I did say. I thought that was the best way of beginning the business. If you think I have said enough I shall be quite ready to stop.

The PRESIDENT: No; because you have not answered the question.

Mr. HORSLEY: I am going on to answer the question, but you must lay a foundation first. That was his line of argument. Now, if they looked at the letter they would see that it was stated he said Mr. Brown had been shouted down in this chamber, and the words "shouted down" were in inverted commas. He never used those words. Then there was the expression "flouted by the President." He never used those words. Then the letter went on to say, "This proves that Mr. Brown has done his duty without fear or favour," and that Mr. Brown had been attacked by the

President in an unwarrantable manner in that Council and without any justification, and that that constituted a reason for returning him at the election. That was not what he (Mr. Horsley) stated. On the contrary, the whole tenour of his remarks were directed in absolutely the opposite direction, so that this letter was not only a falsification of words but a total falsification of his meaning, and if the President had addressed him on Saturday he could have shown him that that was not the first time that this speech of his had been falsified by Dr. McCook Weir. This was really the second edition of this forgery, if he might so describe it.

The PRESIDENT: We have nothing to do with Dr. McCook Weir.

Mr. HORSLEY: I thought you asked me to prove—

The PRESIDENT: The question I put to you was this, Did the words and expressions marked by inverted commas correctly represent what you said?

Mr. HORSLEY: No, they do not.

Mr. GEORGE BROWN asked leave to say a few words. He would be very brief and he would avoid the personal. It was only on Sunday morning that he had had an opportunity of reading this previous letter. For himself he should take no notice of an election speech, but when he found that the conduct of the President in the chair was called in question he thought it his duty to direct attention to the matter and therefore he wrote the letter which appeared on the programme of business. He was asked yesterday by a member of the Council if he could tell whether Mr. Horsley had said anything of the kind and he said that he did not know, he had no time to read Mr. Horsley's speeches. Having been 30 years before the medical profession in regard to medical reform and medical ethics he was very well content to leave his professional and public career to the judgment of that profession. But he said to the member of the Council that he would look up the files of the *British Medical Journal*.

Mr. HORSLEY, rising to a point of order, said that if Mr. Brown was going to read a report of his speech at Liverpool and to comment upon it he submitted that the Council should have notice and that the whole of the speech should be printed in order that members might see what he said. He was prepared to substantiate every word of that speech.

The PRESIDENT said that he thought Mr. Brown should just allow him to answer the question which had been put to him.

Mr. BROWN: Very well, I will leave the matter. I am only concerned about the Council and our President.

The PRESIDENT: I am answering this question, having clearly before me that Mr. Horsley has himself stated definitely that he did not use these expressions, and therefore it will be also understood that my answer does not apply to him because he disclaims having used the expressions.

Mr. HORSLEY: Not only the expressions but also the application of the expressions, which is far more important than the actual words, because I may have used words something like these.

The PRESIDENT: This is what I have put down in writing: "The President stated on his own behalf and on that of the Council, that the words and expressions referred to do not correctly represent his attitude towards Mr. George Brown in this Council and that such words and expressions are a complete misuse of the English language as regards any proceedings in the Council." That is the answer which I intend to put on the minutes of the proceedings.

The incident then closed.

#### *Prevention of Personation.*

Instead of proceeding with the further consideration of the report of the committee on this subject, the Council decided, on the motion of Dr. BRUCE, to refer the report back to the committee, together with the proposed regulations, with a view of obtaining detailed comments by the Branch registrars of England, Scotland, and Ireland. Dr. Bruce took the view that the matter was not yet ripe for decision. The names of Dr. Windle and Sir Christopher Nixon were added to the committee and Dr. Reid agreed to take the place of Sir John Batty Tuke who asked to be relieved from service.

#### *Medical Practitioners and the Sale of Poisons.*

Dr. MACALISTER moved:

That the following notice be issued by the Council for the information of registered medical practitioners:

Whereas it has been made to appear to the General Medical Council

that certain registered medical practitioners, who keep medical halls or open shops for the sale to the public of scheduled poisons and other drugs, have been accustomed to leave in charge of such halls or shops assistants who are not legally qualified to sell scheduled poisons to the public; and that such practitioners have thereby, for their own profit and under cover of their medical qualifications, enabled such unqualified assistants to sell scheduled poisons and so to commit breaches of the law; and whereas, in the opinion of the Council, such practices on the part of a registered medical practitioner are professionally discreditable and fraught with danger to the public, the Council hereby gives notice that any registered medical practitioner who is proved to have so offended is liable to be judged as guilty of "infamous conduct in a professional respect," and to have his name erased from the Medical Register under the 29th Section of the Medical Act, 1858.

He explained that that notice had been drawn up with the assistance of the legal advisers and followed very closely the lines of the notice with regard to covering. He thought it was more perhaps than usually desirable to issue a precise description of the particular offence which had come under their notice and which they had had to deal with judicially because some misunderstanding had obviously taken place among practitioners in a certain part of the kingdom as to the precise nature of what they had regarded as an offence.

Dr. BRUCE suggested that the words "for the sale to the public of scheduled poisons and other drugs" should be omitted as they made an offence of what was perfectly legal.

Mr. BALL thought that in place of these words they might insert "in which scheduled poisons are sold to the public."

This change commended itself to the Council and was adopted.

Dr. MCVAIL asked whether the notice would apply to the dispensing of scheduled poisons in a dispensary in a practitioner's house.

Dr. MACALISTER replied that the notice was confined to the class of cases of which the Council had had recent experience—namely, to open shops.

Dr. HERON WATSON thought that the Council should make it clear whether the notice extended to "preparations containing scheduled poisons."

Dr. MACALISTER said that the courts had decided that point.

Dr. HERON WATSON: But this is for the information of medical practitioners.

After some discussion the Council agreed to accept the words mentioned by Dr. Heron Watson.

Mr. A. H. YOUNG: Does "open surgery" mean the same as "open shop"?

Dr. MACALISTER: A man may call the place what he likes; the offence is leaving in charge of such a place where scheduled poisons can be sold a person not qualified to sell them.

The notice altered so as to read "who keep medical halls or open shops in which scheduled poisons or preparations containing scheduled poisons are sold to the public," &c., was then approved by the Council and ordered to be published.

#### *The Period of Professional Study.*

The Council proceeded to receive the following report from the Education Committee on the motion and amendment with regard to the conditions for admission to the Medical Students' Register, referred to them on June 10th, 1901, arising out of the consideration of certain communications from the Royal College of Physicians of London and the Royal College of Surgeons of England.

The Education Committee have considered the following motions by Dr. Bruce and Mr. Ball, which were referred to them on June 10th, 1901, by the following resolution of the Council: "That the Council, instead of expressing an opinion on the principles involved in the motion proposed by Dr. Bruce and the amendment proposed by Mr. Ball refers them to the Education Committee for consideration and report to the Council."

Dr. Bruce's motion: "That it be referred to the Education Committee to consider and report to the Council whether it is desirable and practicable to provide (1) that students shall be required to pass a recognised examination in the subjects of physics, chemistry, and biology subsequently to passing a recognised examination in the subjects of preliminary education; (2) that a second or preliminary scientific registration of students who have thus passed in chemistry, physics, and biology be established by the Council; and (3) that, dating from this second or preliminary scientific registration, the period of professional medical study be four years."

Mr. Ball's amendment: "That it be referred to the Education Committee to consider and report to the Council whether it is desirable and practicable to provide (1) that, after a date to be named, preliminary examination for admission to the medical profession shall consist of two sections:—Section (A).—An examination in general education as at present authorised by the General Medical Council, Section (B).—An examination in physics, biology, and chemistry conducted by any recognised licensing body. (2) That no person be

admitted to register as a medical student with the Registrar of the General Medical Council who has not passed both the above sections of the preliminary examination, and has not produced evidence of entry at a recognised medical school. (3) That no person receive any diploma until after the expiration of four winter and four summer sessions from the date of registration."

The principles involved in these proposals appear to the committee to be:—1. That for complete registration a medical student should fulfil three conditions: (a) He must have passed a recognised "arts" examination, as at present; (b) he must have passed a recognised "preliminary science" examination, such as at present usually concludes the first year of the curriculum; and (c) he must have begun professional study at a medical school. 2. That the minimum period of professional study after such complete registration should be four academic years.

While it may be maintained that a system of registration established on these lines would possess certain advantages, it is clear to the committee that it could not come into effect without the approval and cooperation of the several licensing bodies. In the case of a number of these the change from the present system would involve important alterations in their statutes and by-laws, and in some instances the bodies would be unable to make such alterations by their own action alone.

The committee therefore feel that they are not in a position, without further inquiry and consideration, to determine whether the suggested changes are practicable; and they are of opinion that the Council should not at present commit itself to either of the two proposals which have been submitted.

The committee are not unanimous as to the expediency of the Council's taking any action at present in the direction suggested. They have, however, agreed to submit the following propositions for the decision of the Council, and they are willing, should the Council adopt these, to undertake the necessary inquiries on the Council's behalf:—1. That the Council approves of the suggestion that the registration of a medical student should be postponed until he has passed a recognised examination in the preliminary scientific subjects, on the understanding that the subsequent course of professional study should occupy at least four academic years. 2. That the Council instructs the Education Committee to communicate the foregoing resolution to the licensing bodies and to inquire on behalf of the Council whether the change therein suggested is considered by them to be desirable and practicable.

JOHN BATTY TUKE, Chairman.

Nov. 28, 1901.

On the motion of Sir JOHN BATTY TUKE, seconded by Dr. BRUCE, the foregoing report was received and entered on the minutes.

Sir JOHN BATTY TUKE moved that the report be now considered.

This proposal was seconded by Dr. BENNETT.

Dr. WINDLE moved as an amendment that the following proposal, standing on the programme in the names of Dr. McVail and Mr. Young, be first dealt with, viz:—

That a committee be appointed to prepare a report on the differences that exist between certain licensing bodies on the one hand and the General Medical Council on the other regarding the courses and conditions of study and the recognition of the institutions and schools in which the required courses may be taken, and that the report be considered by the Medical Council at a special meeting, when the Council will decide what action, if any, shall be taken, and in particular whether the circumstances are such as to require action to be taken under Section 20 of the Act of 1858.

It was perfectly obvious, Dr. Windle said, that this motion raised the whole question involved in the Education Committee's report and, in his opinion, in a more convenient form than in the report.

Dr. REID seconded the amendment.

Mr. BALL opposed the amendment on the ground that if Dr. McVail's proposal was taken first and was carried it would dispose of the matter altogether and there would be no opportunity to discuss the report.

Dr. ATTHILL also opposed the amendment. He objected to any step being taken which would leave the matter involved in uncertainty for a third year. Nothing could be so unfortunate as a further postponement. There was a feeling of the greatest irritation on the part of the licensing bodies of Ireland at the repeated postponement of the question, and if something definite was not done this session it would cause a great deal of trouble.

Sir JOHN BATTY TUKE felt himself to be in a very difficult position at the moment, for he thought that it would be much better to proceed first with Dr. McVail's motion as that would settle the whole matter.

Sir WILLIAM THOMSON hoped that the order of business as on the programme would be adhered to.

Dr. McVAIL said that Mr. Young and he had no wish to press their motion on the Council unduly. The motion, however, could be discussed in a very short time, but what might take place if the report were discussed might not tend towards peace.

On a vote being taken the amendment was defeated by 14 to 7, and it was agreed to proceed with the consideration of the report. A proposal by Dr. ATTHILL that it be taken in committee of the whole Council was rejected.

Sir JOHN BATTY TUKE then stated that the motion by

Dr. Bruce and the amendment by Mr. Ball, which were embodied in the report, had been under the very careful consideration of the committee on two occasions during the past week. They had been considered in the best spirit and without anything like warmth. But there was such divergence of opinion that it was utterly hopeless for the committee to come to what might be properly called a report. His own feelings on the matter did not allow him to move the first of the recommendations at the end of the report, and he thought it was arranged by the committee that Sir Christopher Nixon should move the adoption of that recommendation.

Mr. HORSLEY did not understand this sort of procedure.

Sir CHRISTOPHER NIXON, in moving the adoption of the recommendation, said that what they wanted to do was to affirm the principle that it would be desirable to establish a preliminary scientific examination; that it would be desirable to postpone the registration of students until that preliminary scientific examination was passed, and that the period of the curriculum from the date of registration should be four years, these to be devoted strictly to medical study. This proposition was put forward to elicit from the Council an opinion as to whether it was desirable to make what was a very radical change in the present system. In supporting his motion he desired to keep two things apart—the first, the question as to the conditions in regard to the preliminary subjects and the length of the medical curriculum; and the second, the question as to where the preliminary scientific subjects should be studied. The first point which he desired to emphasise was that the subjects they put down for the first year of medical education were not medical subjects at all. They were subjects of general culture, and it was only by a high stretch of imagination that physics could be called medical physics, that chemistry as taught in the universities and institutions recognised by the Council was medical chemistry, and that botany and zoology could be so sufficiently specialised as to make them medical studies at all. He argued that these subjects were subjects of general education, subjects to insure that the student had broad general culture. What he put to the Council was that when they were raising the standard of preliminary education they ought to look upon that standard as having two sides—the arts side and the scientific; and if they added to the arts requirements the amount of science training which they now required from the student as his first year of study they would have students with such a broad degree of culture that when they came to medicine they would be capable of taking a proper view of the subject. Let them bear in mind that the Council had been treating these subjects not as medical subjects, but had been recognising that the examinations in the universities and the course of instruction in the universities were in connexion with arts and science and not in connexion with medical training. It did not mean that these subjects should be specialised as medical subjects at all. They recognised certain high-class institutions that had no lectures in connexion with medicine; so the Council had affirmed the proposition that these subjects were not medical subjects at all. In his view the student should be free and unfettered when he commenced his four years' medical studies. Of course, if the Council adopted what he was urging they would have to make a very considerable modification in the medical curriculum. The present arrangement of subjects was a bad one for the student. The suggestion of dissociating the preliminary scientific subjects was by no means new. In 1881, when there was a four years' course the Council had passed a resolution in the same direction as this motion went, and curiously enough the different examining boards when questioned agreed with the Council. There was far greater reason for introducing a preliminary scientific examination with the five years' course in existence than there was when the course was only four years. It was a hardship on medical students to prolong the study beyond five years, and on behalf of them the Council ought to secure that the five years were spent most advantageously, and he believed that it would be most advantageous to the student if the year prior to medical subjects proper was devoted to the preliminary scientific studies. As to what institutions should be recognised as giving instruction in these preliminary scientific subjects, he took it that this was a question which more concerned the licensing corporations than the universities. He supposed that the universities would require the higher form of

education, with lecturers and full equipment, but he did not think that that was at all necessary for students presenting themselves to the corporations. This was the point which had really raised the contention between the English Royal Colleges and the Council, and he must say that he thought the Royal Colleges were in the right. He did not wish to imply that in the matter of dealing with the General Medical Council the Royal Colleges were in the right. That was not a question he need enter upon now, but what he argued was this, that once the Council recognised certain scientific institutions in which training in the preliminary medical subjects might be taken it gave away the whole case, because it drew the distinction between the education given in medical schools—where men must take set courses in physics, chemistry, and biology—and institutions in which the preliminary subjects were taught. When that distinction was drawn he thought the Council should be satisfied with the high standard of the examination conducted by the licensing bodies and not take very much trouble as to where the training was got. Members were not, he thought, at that Council to consider vested interests. Their first duty was to raise the status of the medical profession and to secure that the men on their Register were men of the culture that medical practitioners ought to possess. They had nothing to do with the arrangements which existed in the schools. What they had to do was to see that the men secured such an education as would enable them to pass a strict examination. In conclusion, he expressed the hope that the representatives of the two English Royal Colleges would support the principle he had ventured to urge upon the Council, and he asked leave to put the proposal in the following form:—

That the Council approve of the suggestion that the registration of a medical student should be postponed until he has passed (1) a recognised examination in arts and (2) a recognised examination conducted by the qualifying bodies in the preliminary scientific subjects, on the understanding that the subsequent course of professional study should occupy at least four academic years.

Dr. BRUCE seconded the motion.

Dr. PETTIGREW strongly opposed the adoption of the recommendation. He thought that it was in order to make room for chemistry, physics, and biology that the five years' curriculum had been instituted, and the Council at the time had been quite unanimous in including the three subjects in the medical course, and so were the licensing bodies. All "rights" had been waived in order to secure what might be best for the students and best for the profession, and if Sir Christopher Nixon's motion was carried they would be taking a step backwards. He hoped that the three subjects would not be taken out of the medical course. They were very valuable as part of it; indeed, more valuable in these advanced days than they were when the five years' curriculum was adopted. They formed, as it were, a link between the arts examination and the medical course, and nothing would be gained by striking them out of the latter. Things were going on very well. His fear was that if they once began tinkering with the curriculum they would be plunged into indefinite confusion. The licensing bodies would not know where they were, and there would be no end of trouble.

Dr. BENNETT informed the Council that a few days ago the Executive Committee of Trinity College, Dublin, whose members with one exception were laymen, passed a resolution declaring that in consequence of the position taken by the English Royal Colleges regarding the first year's subjects it was to be clearly understood that the University of Dublin held itself free to deal with the five years' curriculum as it might consider best to further the interests of its students and medical education in Ireland. He was instructed to say that the proposal before the Council would operate against the medical status in Ireland—that it was a retrograde step.

Mr. BALL said that in his opening address the President had expressed the hope "that both the Education Committee and the Council will bear in mind the paramount importance of the Council not losing its hold on the standard of general education to be required from students of medicine." That was a sentiment which every member of the Council endorsed, and it was in accordance with it that he had last session proposed his amendment. If that were adopted in the form embodied in Sir Christopher Nixon's motion—adopted by the Council and accepted by the licensing bodies—it would place the preliminary scientific subjects on a similar plane to those of general education, and with a four years' medical course proper they would be

spared the melancholy spectacle of men trying to get on with the medical course and being repeatedly rejected in the three preliminary scientific subjects. The adoption of the preliminary scientific examination would, he believed, induce many good men to go into the profession who otherwise would not. Many men went to the universities without any definite intention to take the medical course. When there, however, they become enamoured of the subject, and having obtained a sound knowledge of the three subjects in question they desired to enter upon the medical course. What were they to do? At present they had five years' study to face, but if the proposition now before the Council were adopted they, having already passed the three subjects in their arts course, would start with only four years' professional work before them. He would ask those who did not agree with the proposal what alternative they proposed to get the Council out of the difficulty they were in. There could not be any doubt that the example set by Dublin University would be followed before long by other licensing bodies, and he would urge them, therefore, to consider whether they could not give their approval to Sir Christopher Nixon's motion so as to secure a uniform four years' course of professional study.

Dr. PAYNE reminded the Council that in 1899, on the first occasion that he spoke on the subject, he suggested that the best *modus vivendi* between the Council and the two Royal Colleges would be to adopt the system which was now suggested to the Council, and which he would give his support to. The resolution did not say how or where the scientific education was to be given, and the only real danger was that the scientific education might be got when the candidate was too young.

Dr. WINDLE had been very much surprised to hear that the fifth year was added for the purpose of introducing the preliminary subjects. He had always understood that it was added with the object of obtaining more clinical instruction, and in his university—Birmingham—they had as much as three years of the instruction. Birmingham was not prepared to alter its arrangements in the direction suggested by the motion, which, if not unanimously agreed to, would be mere waste paper.

Dr. McVAIL said that there had been no formal consideration of this matter by the Scotch Universities, but he was perfectly satisfied that not one of these universities would fall in with the proposal now made. Nothing had occurred to condemn the five years' system, or to lessen the importance of the three preliminary subjects as part of the regular medical course, and surely the Irish and Scotch bodies were not to tumble down the system that had been carefully built up in order to get this little system of preliminary scientific education, and all, too, for the sake of the two Royal Colleges.

Mr. HORSLEY assured the Council that the profession throughout the country was watching this matter very closely and was fully aware that the discussion of it was no academic one. They understood that it was the revolt of two licensing bodies against the Council, and the general practitioners throughout the country were of one mind and that was that the authority of the Council should be maintained. The resolution now before them would have no effect unless the second recommendation was passed, and if they read the second into the first they would find that they formed a proposal by which the authority of the General Medical Council was destroyed. He could not read it in any other way and he told the Council that that would be appreciated throughout the country by the profession at large as a very serious blow at education.

Mr. YOUNG said that his university (the Victoria) was waiting for the action of the Council. Their position, however, was almost expressed in the words of the Dublin resolution, and, like Dublin, they should hold themselves free to deal with the five years' course in the interests of the students.

Dr. GLOVER thought it must be the desire of every member of the Council to see this question disposed of. Mr. Horsley seemed to think that if the London University could only do this preliminary scientific work it would be all right.

Mr. HORSLEY: That is not my suggestion, but I agree with it.

Dr. GLOVER: If the London University took the Royal Colleges into its care all would be right. Does Mr. Horsley think that no good education is given out of the London University?

Mr. HORSLEY: That is a misrepresentation.

Dr. GLOVER: You will excuse me just putting it in my own

form. I am not an authority, but does not Mr. Horsley think that scientific instruction should be conducted by a university? He (Dr. Glover) went on to say that the time was come for them to recognise that that was not the trend of public opinion nor was it the opinion of public persons. There was a disposition to get science introduced into the schools and to make it an essential part of secondary education, and if they went against that they went against the best opinion of the Council. For instance, Sir William Gairdner thought the Colleges were right in throwing back scientific education on the schools and believed that boys would get more chemistry, and more chemistry of the right sort, in their school life than in some of the classes of the medical schools.

Mr. TICHBORNE agreed that if they adopted the motion they would be taking a retrograde step.

Dr. LITTLE felt that he must vote against the motion. One member had spoken of the proposal as one to take the Royal Colleges off the rails. To his mind it was one to take the Medical Council off the rails. Dr. Norman Moore had satisfied him last session that the Royal Colleges had done much to make their plan work well, but he (Dr. Little) must vote against the motion because he thought that the Royal Colleges should have thought of this before they gave their acquiescence to the five years' scheme. It was hardly becoming to them and greatly disturbing to the work of this Council that the matter was introduced now. His great reason for voting against the motion was that the system it would set up would substitute examinations for education.

The PRESIDENT asked Sir Christopher Nixon if in the event of his motion being carried he proposed to move the second recommendation.

Sir CHRISTOPHER NIXON: I do not. I disapprove of it.

Dr. MACALISTER said that a memorial on the subject had been received from professors and teachers in Scotland and perhaps it should be read before the vote was taken.

The document, which was then read, is printed in another column. It was signed by 17 names of professors and teachers in the University of Glasgow, St. Mungo's College, Glasgow, Extra-Mural Medical Colleges in Glasgow and Edinburgh, and Dundee University College.

Mr. BROWN wished as a member of the Royal College of Surgeons of England to state that the Members of the College were not at all in sympathy with the position taken up by the representative of the College (Mr. Bryant) in this Council. At their last meeting a resolution proposed by him was carried by a large majority to the effect that the Members regretted the policy of the Council of their College, that they were acting disloyally to the General Medical Council, and that their action must encourage other bodies to follow in the same direction and must result in materially lowering the standard of education.

Sir JOHN WILLIAMS remarked that before voting the Council should be in possession of a knowledge of the way in which science was taught in these schools which were so much tabooed and treated with contempt by this Council. In recent years modern science had been established in all the good schools throughout the country. There were many schools which were not public schools but higher grade schools where science was taught very liberally. It would be a good thing, an important thing, if this Council were to recognise them as institutions where the training of young boys might go on, as it was the case that when young men went to the universities they had done a great part of the work which entered into their final examination. If the motion was carried he should move that the registration should be after the arts examination and before the preliminary scientific education.

Dr. BRUCE hoped that the Council would pass the motion, but he was one of those who believed that the course which the Royal College of Surgeons of England had taken in this matter was not proper for any body connected with the General Medical Council. Their action had been such as would end in only one way—the introduction of the one-portal system.

After a short reply from Sir CHRISTOPHER NIXON, the Council divided, when 10 voted for the motion, 17 against it, 2 declined to vote, while 2 were absent.

Sir Christopher Nixon's motion was accordingly rejected, and the PRESIDENT intimated that that disposed of the Education Committee's report.

The Council adjourned.

TUESDAY, DEC. 3RD.

The Council met again to-day, Sir WILLIAM TURNER being in the chair, and by sitting later than usual succeeded in getting to the end of its session.

*Mr. George Brown and the Chair.*

When the minutes of the proceedings yesterday on this subject were under consideration it was arranged to insert words to the effect that Mr. Horsley entered a protest against questions of privilege being raised upon irresponsible reports of members' speeches.

*Re-election of Sir William Turner as President.*

The next business was to receive the following letter from the President, viz. :—

General Medical Council Office, 229, Oxford-street,  
London, W., Dec. 2nd, 1901.

DEAR CHAIRMAN OF THE BUSINESS COMMITTEE.—Acting on the undertaking given in my address on Nov. 26th, I now place my resignation of the office of President in the hands of the Council as from Tuesday, Dec. 3rd.

I take this opportunity of expressing to the Council my sense of the honour of the position to which I was elected three years and a half ago and my acknowledgment of the continuous support which the Council has accorded me in the discharge of the highly responsible and onerous duties attached to the office of President.

Believe me, very faithfully yours,

WM. TURNER.

Sir William Turner withdrew from the chamber and his place in the chair was taken by Mr. Bryant, the senior treasurer of the Council.

Dr. PYE-SMITH moved :—

That Sir William Turner be re-elected President of the Council for a further period of five years, provided that he remains so long a member of the Council.

No elaborate eulogy upon the qualities of Sir William Turner were, he said, required from him. All the members knew his scientific eminence and his great experience in university matters and they had all experienced his constant courtesy, punctuality, and good temper. They had all observed the benignant solemnity with which he addressed delinquents in carrying out perhaps the most important and certainly the most painful of the duties imposed upon this Council, but of all his qualities that which appeared to him the most admirable was his patience. The Council were glad to learn that the ancient and learned University which he represented had wisely re-appointed him her representative for another period of five years.

Dr. ATTHILL, in seconding the motion, said that it would be a serious thing to the Council if it were to lose the services of Sir William Turner.

The ACTING PRESIDENT said he would now put the motion.

Mr. BROWN asked to be allowed to say a word in support of it.

Dr. PETTIGREW said that they should all wish to speak in support of the motion, but he hoped the reappointment would be quite unanimous without any speech from Mr. Brown.

Mr. BROWN said that all he desired to say was that throughout the time he had had a seat at this board he had met with uniform, he might say sympathetic, courtesy from the President and he felt it his duty to state this and he hoped it would be publicly recorded. He would further state that if any member had met with anything to the contrary it was his duty to say so here and not about the country.

The ACTING PRESIDENT put the motion and declared it carried by acclamation.

Introduced by the mover and seconder, Sir WILLIAM TURNER returned to the chamber, and after the decision of the Council had been announced to him by Mr. BRYANT he resumed his place in the chair.

The PRESIDENT said that he would like to say a few words on this occasion. When the Council did him the honour three and a half years ago to ask him to take the chair he deeply felt the responsibility of the situation. He felt it the more on account of his place of residence and the fact that so much of the business of the Council was to be transacted when he was living 400 miles away. He had great doubts in his own mind at the time whether it would be possible with his living at that distance for the work to be performed in a way that would satisfy himself because he thought perhaps in this matter he was as keen a critic as any member of the Council, and he wished to put on record that if it had not been for the invaluable assistance which he had received

from the Registrar (Mr. Allen) it would not have been possible for him to do the work in a satisfactory manner. Mr. Allen had acted throughout his tenure of office with the greatest consideration towards him because they must keep this in mind, that though the part of the business of the President which came most prominently before the public was that which took place in this Chamber and was duly reported upon, yet during the intervals between the meetings of the Council a large amount of business, in fact, almost daily business of some kind, had to be brought before the notice of the President and considered by him. Mr. Allen had always sent him every item of business which he had to consider arranged and prepared in a way which enabled him at once to grasp the chief point that he had to take into consideration, and so Mr. Allen had greatly lightened his labours. Now he was satisfied that he would receive from Mr. Allen in the future as in the past the same loyal coöperation, and he thought that he might say on behalf both of Mr. Allen and himself that whoever followed him in the chair would find that the business of the office during his tenure of the presidency had been so methodised and arranged that no item of business that had ever had to come before him but they would find in its proper place duly minuted, so that his successors could at once if they required lay their hands upon it. He hoped that health and strength might be given to him, for a period at any rate, to continue in this work. He could not in the natural course of things look for the full period of five years for which he understood they had chosen him, but he hoped that he might be able to do his duty towards them and towards their common profession, because that was how they had to look on this question. They were the great administrative body of their profession and they had to strive, all of them individually, to do their duty to that great profession so that it might continue to advance and that in no matters might they ever lag behind. He thanked members heartily for again reposing their confidence in him.

*The Council and the English Royal Colleges: Special Committee Appointed.*

Dr. MCVAIL moved :

That a committee be appointed to prepare a report on the differences that exist between certain licensing bodies on the one hand, and the General Medical Council on the other, regarding the courses and conditions of study, and the recognition of the institutions and schools in which the required courses may be taken; and that the report be considered by the Medical Council at a special meeting, when the Council will decide what action, if any, shall be taken, and in particular whether the circumstances are such as to require action to be taken under Section 20 of the Act of 1858.

The differences between the Council and the English Royal Colleges, Dr. McVail said, had never been more apparent than during this session of the Council. They arose upon the interpretation of Sections 18 and 20 of the Medical Act of 1858. Section 18 said that the several colleges and bodies in the United Kingdom mentioned in Schedule A shall from time to time when required by the Council furnish them with such information as they might require as to the courses of study and examinations to be gone through in order to obtain the respective qualifications mentioned in the schedule and the ages at which such courses of study and examination were required to be gone through and such qualifications were conferred, and generally as to the requisites for obtaining such qualifications; while Section 20 said that in case it appeared to the Council that the course of study and examinations were not such as to secure the possession by persons obtaining the qualification of the requisite knowledge and skill for the efficient practice of their profession it shall be lawful for the Council to represent the same to the Privy Council. The Council had regarded their position under the Act as that of laying down the minimum standard of study to be required by the various universities and licensing boards. These universities and boards undoubtedly could add to the course of study, but under the Act; the Council had proceeded as if they could not subtract from the course of study. Obviously if the medical profession were to be governed in such a way that every name appearing on the Register under the keeping of this Council was that of a person who was adequately taught, only that body could decide what the adequate study should be, otherwise there could be no harmony and no minimum. All the universities and bodies in existence prior to this Council had charters, and in these charters they had rights

quite clearly stated and defined, but all these rights were modified by the Act bringing the Council into existence. Whatever these rights might be they must be carried out as regards study subject to the approval of this Council, and if this Council did not approve of the study then it was not the privilege but the duty of the Council to report the matter to the Privy Council. The Council had laid down certain regulations as to the study of particular subjects and the English Royal Colleges had not conformed to these as regards the conditions under which they might be taken. This action of the English Royal Colleges came to the notice of the Council three years ago, so that there was no question of want of patience on the part of the Council. The Education Committee had made reports upon it and the Council had decided that its recommendations and its policy must be upheld. The Colleges, on the other hand, had shown no disposition to meet the views of the Council. On the contrary, the departure from the Council's recommendations with regard to the first year of preliminary scientific study had led them to question the right of this Council to inspect any examinations except the final examinations in medicine, surgery, and midwifery. It had led them practically to take their students out of the Students' Register and to consider themselves free to deal with the preliminary examination as they thought fit. It was clear that what the English Colleges had done other bodies would regard themselves as at liberty to do, and the whole work of this Council in building up a system of education would crumble away. In his opinion it was of the utmost importance that the Council should determine whether or not in these grave circumstances they should take action. What he proposed was that there should be a special committee who would prepare a statement of the case and present it to an independent counsel and submit their report to a special session of the Council.

Mr. YOUNG, seconding the motion, said that he considered that it was essential in the interests of medical education and for the guidance of the licensing bodies as a whole that this Council should with as little delay as possible declare their policy and make a clear, explicit, and emphatic statement as to the course which they intended to pursue with regard to the conditions of registration of medical students and the conditions of study subsequent to registration. It was, of course, notorious that there were other bodies besides the English Colleges which deviated from the recommendations of the Council.

Dr. GLOVER said that he had never heard a more grave motion proposed upon a flimsy basis. His first objection was that it involved a certain amount of disrespect to the Education Committee.

Sir JOHN BATTY TUKE: There is no feeling of that sort.

Dr. GLOVER said that he had been a member of the committee for nearly 15 years and he knew that what he had said must be the innate feeling of most of his colleagues. Then he objected to the multiplication of special sessions and to the expense involved. He held that this subject would not be settled by meetings as much as by the reflection of members in the intervals between meetings. It was absurd to talk about putting the matter before an independent counsel. Mr. Muir Mackenzie, if he had any prejudice, must be in favour of the Council and he told them plainly that the Council had no power. What he (Dr. Glover) proposed was that they should leave the matter alone, at any rate for another six months.

Dr. ATTHILL said that while he regretted the action of the English Colleges he did not think that Dr. McVail's proposal would contribute to the settlement of this question. The facts were perfectly well known to every member of the Council and the only action which he could understand was that they should report them to the Privy Council.

Mr. HORSLEY said that he regarded this motion as the first attempt to get the Council to look at the question at issue properly. He believed that Parliament and the central Government considered that they had handed over the question of medical education to this Council and that they were not aware of what had been going on recently. In these circumstances he believed that it would be a good procedure if their legal adviser supported the idea of going to the Privy Council and asking the opinion of that body as to who was the highest authority on medical education, this Council or no.

Dr. LITTLE, while objecting to a special session, said it was most important to have this matter settled.

Sir WILLIAM THOMSON insisted that the motion of Dr.

McVail was the legitimate outcome of the discussions that had taken place and said that if the proposal had been to report to the Privy Council he should have supported it.

Dr. PYE-SMITH said that surely the object of the appeal to the Privy Council was to prevent the scandalous lowering of the standard in any case, and he asked whether anything of the kind could be suggested in the case of the English Royal Colleges. No one would suggest that the men admitted to this diploma would be less well-educated than the diplomates of other bodies. It was impossible to bring all bodies to exactly the same point, and they ought to remember that there were defects elsewhere if there were defects in the case of the English Royal Colleges. He confessed that he had noticed upon these occasions that some of the noisiest showmen of pebbles had come from what he might almost describe as crystal palaces. This Council derived their position not so much from their authority as from their influence. They had limited legal powers, and they had, on the whole, exercised them with judgment and moderation, and as they continued to do so their influence would gradually extend. In this particular case he thought that they might trust to peace and the progress of reason to make the right side triumph.

Sir CHRISTOPHER NIXON said the difficulty which he had was that he could not follow his friend who had just spoken in asking that the Council should adopt entirely a policy of peace, that they should endeavour to get a *via media*. It was a matter of regret to him that there should be a difference between the General Medical Council and two great incorporations like the Royal College of Physicians of London and the Royal College of Surgeons of England. But they could not shut their eyes to what would be the result of these Colleges insisting upon taking a particular action, on the one hand, which was in direct controversion to what was laid down by the General Medical Council on the other. And what they forgot was the danger that would arise from not being able to find a *modus vivendi* as between the parties, for at the end of three years' contention they were just as far from reconciliation as ever. The action taken by the Colleges in question reduced the powers of this Council to a nullity. It brought things to this—that the General Medical Council had practically no powers. The danger in not having it shown that the Council had powers was that they afforded an opportunity for the operation of a process of disintegration—that was, they would have each individual incorporation—some from not very particularly worthy motives—instituting a set of regulations which they would say they, equally with the English Royal Colleges, had the right to adopt. That was the danger, and it was threatened from various quarters. How was it to be got rid of? Dr. Glover was continually preaching peace, and to-day accused members of wasting the Council's time and money because it had not put upon its minutes a series of resolutions on this matter and that. The Council, he thought, should be the judge of their own actions. He was not quite sure that there was any occasion for postponing action by the Council or postponing to ask the Privy Council to say whether the General Medical Council had the power to direct medical education throughout the three kingdoms. Let the Privy Council say in reply that the General Medical Council had gone beyond their rights and had no power to direct the licensing corporations, or, on the other hand—and according to the provisions of the Medical Act—that the Council had acted within their rights in determining the medical curriculum and the subjects of medical study and how they should be taken. If the Privy Council gave decision to the latter effect he presumed that the licensing bodies in England would bow the head. If, on the contrary, the Privy Council said that the General Medical Council had not the power, they ought to try in every way possible to get the power, because it would be of advantage not only to the profession but to the public at large. It was of the greatest importance, in his opinion, that some definite action should be taken by the Council, and at once.

In answer to the PRESIDENT Mr. BRYANT said: I have nothing to add to what I said the other day on this subject, and I do not wish to take part in this debate.

The PRESIDENT: Dr. Moore, have you anything to say?

Dr. NORMAN MOORE: Not I, sir.

Dr. MACALISTER said that no one could say that he was not prepared to fight for the Council's position, but he also looked at the possibilities of the result of a fight. If the

Council examined the clause under which it was proposed to take action, he thought they would see that the only thing they could ask the Privy Council to do would be to deprive the English Royal Colleges of their diplomas. Could they imagine themselves going before the Privy Council with the demand that the Licences of these English Royal Colleges should cease to be registrable qualifications? The Privy Council, sitting as a judicial body, would not oblige the General Medical Council by giving a legal opinion as to whose power was paramount. This Council could not bring a case before the Privy Council unless they absolutely demanded, on the result of their investigations, that these diplomas were unworthy of being registered. They should not have any *locus standi* unless they were prepared to state that. He for one was not prepared to do that, and he thought that most of those around the table were not prepared to state that. There was no question that the English Royal Colleges by their independent action had dealt a blow at the importance of the three first year's subjects that would be felt for some time, but, notwithstanding, he did not feel that the Council had lost all influence. So long as they kept their hands on the medical students and kept their hands on the conditions of admission to the students' registration they should have a powerful lever with which to act on the teaching bodies and on the parents and guardians of possible medical students.

Dr. McVAIL could only express his great surprise at the speech which had just been made by Dr. MacAlister. Dr. MacAlister thought that the Council should sit and wait and hope that grace might enter into the English Royal Colleges. But what was to happen in the meantime? The University of Dublin had shown. Dr. MacAlister also seemed to suppose that the Privy Council would not refuse recognition to the Licences of two such great bodies as the English Royal Colleges. But he for one presumed that the Privy Council would deal with these two great bodies as they would deal with the smallest bodies in the country, and that would be justly and rigidly. The point was, that these two bodies were accepting a first year's course of study which in the opinion of the General Medical Council was "insufficient"; but as the whole matter was involved they must get up a clear statement of the facts, and that was the reason why he proposed his motion.

On a division 16 voted for the motion and 10 against it. Three members did not vote, while two were absent.

The motion accordingly was carried.

Dr. McVAIL moved, as a consequence, that the committee should consist of three members representing England—Mr. Bryant, Dr. Norman Moore, and Mr. Young; two representing Ireland—Sir William Thomson and Mr. Ball; and two representing Scotland—Dr. McVail and Sir Hector Cameron; and that the President should be *ex-officio* a member of the committee. He also proposed that the special meeting of the Council to consider the committee's report should begin on the fourth Tuesday of February next.

These proposals were unanimously consented to, and it was further agreed that Dr. McVail should be chairman of the committee, and that the committee should have power to ask counsel's opinion—that of Mr. Muir Mackenzie, their legal adviser, and that of any other counsel, if thought necessary.

#### *The Midwives Question.*

Mr. BROWN wished to know if the Council at the special meeting just decided upon would be able to consider any Midwives Bill that was introduced into Parliament early next session and sent in draft from the Privy Council asking the Medical Council's opinion on it.

The PRESIDENT: The first thing the Council will have to consider at the special meeting will be the report of the committee we have just formed, but if a Midwives Bill is sent to us in time I think the Council would consider it before separating.

#### *Recognised Scientific Institutions.*

The Council resumed consideration, adjourned from Wednesday, Nov. 27th, of a list of scientific institutions, other than universities or schools of medicine, recognised by the licensing bodies, presented by the Executive Committee in accordance with the desire of the General Medical Council that the list of institutions should be re-arranged by the committee.

Dr. MACALISTER moved the approval of the following list of scientific institutions, other than universities or

schools of medicine, at which the course of medical study might be commenced by applicants for registration in the Medical Students' Register:—

BRADFORD: Technical College.  
BRIGHTON: Technical Day College.  
BRISTOL: Merchant Venturers' Technical College.  
CAMBRIDGE: Girton College, Newnham College.  
CHELTENHAM: Ladies' University College.  
DERBY: Technical College.  
DUBLIN: Royal College of Science for Ireland, University College.  
EGHAM: Royal Holloway College.  
EXETER: Royal Albert Memorial College.  
LONDON: Royal College of Science, Bedford College, Birkbeck Institute, East London Technical College, Central Technical College, Westfield College.  
NEWCASTLE: Durham College of Science.  
NOTTINGHAM: University College.  
PRESTON: Harris Institute.  
READING: Reading College.  
SOUTHAMPTON: Hartley College.

Sir CHRISTOPHER NIXON seconded the motion.

Dr. NORMAN MOORE said that this list of scientific institutions was not thoroughly satisfactory to him as a member of the Council, seeing that the Council had not satisfied itself in respect to the efficiency of any one of the institutions. He moved as an amendment:—

That the list of scientific institutions, other than universities or schools of medicine, do consist of the teaching institutions where physics, chemistry, and elementary biology are taught, recognised by each licensing body, as stated in the list forwarded each year, provided that the list in each case be accompanied by the statement that after due inspection the licensing body is satisfied that each institution so recognised possesses sufficient laboratory accommodation and appliances for the efficient teaching of the required subjects.

Mr. BRYANT seconded the amendment.

Dr. MACALISTER said that the amendment would knock the bottom out of everything already done because it included every secondary or higher grade school on the list.

After some conversation,

Dr. NORMAN MOORE said that he was only anxious to show that the English Royal Colleges were anxious to take every possible way to meet the Council. Instead of fighting it they had profound respect for it. It would be far wiser to accept his proposal, because it carried out all that the Council originally recommended.

On a division, the amendment was rejected by 16 votes to seven, and the motion of Dr. MacAlister became the finding of the Council.

On the motion of Dr. MACALISTER, seconded by Dr. WINDLE, the Students' Registration Committee were empowered to give provisional approval on behalf of the Council to other scientific institutions of the same status as those now passed which might hereafter be recognised by licensing bodies, the names of such to be reported half-yearly to the Council.

#### *Instruction in Anæsthetics.*

The Council then considered a report by their Education Committee on a communication from the Council of the Society of Anæsthetists. The communication was as follows:—

At a meeting of the Society of Anæsthetists held April 19th a resolution was carried empowering the council to direct the attention of the General Medical Council to the desirability of including in the curriculum of medical education the subject of anæsthetics. The council of the Society of Anæsthetists ventures, therefore, to place before the General Medical Council the following facts:—(1) There is at present no compulsory training in anæsthetics in any hospital or teaching centre in Great Britain and Ireland. (2) There is no examination in this subject testing the knowledge or experience of students before admission to practice. (3) The responsibility of giving anæsthetics involves risks to life. (4) Every member of the medical profession is liable to be called upon to give anæsthetics, and very many are compelled to undertake that duty without help, advice, or guidance. (5) It is therefore submitted that the importance of the subject, touching as it does the actual risks to life, renders it essential that the teaching of the administration of anæsthetics should be included in the schedule of compulsory subjects. (6) While not venturing to suggest how such teaching and examination should be conducted, the council of the society is prepared to furnish details, founded on their experience, should the General Medical Council consider their doing so desirable and useful.

Sir JOHN BATTY TUKE said that the committee's report on this communication was as follows:—

The committee fully appreciate the importance of proper teaching in the subject of anæsthetics, but they are of opinion that it is not expedient that it should be compulsorily included as a separate subject of the medical curriculum.

He moved that the report be received, entered on the minutes, and approved of.

Dr. NORMAN MOORE seconded the motion.

Mr. HORSLEY hoped that the committee would somewhat

re-arrange the wording of their report. The teaching of anæsthetics as a separate subject sounded very formidable, but if the Council included the subject in the final examination he thought that the Council would be taking their proper position as regards it, for the schools were teaching it, they were far in advance of the Council in regard to it, and they ought not to be behind the schools on a question of medical education. Although he quite sympathised with the report and the idea that they should not magnify the subject, he still thought that it ought to be specifically mentioned in the Council's recommendations as being included in the final examination.

Mr. BROWN suggested whether it might not meet the case if a candidate on going up for the final examination showed a certificate that he had given attendance in a certain number of cases.

Dr. PYE-SMITH had no doubt that the subject was taught in every hospital. It was one that students were willing to learn. Surely they ought to be satisfied, therefore, that the thing was done well, and there was no occasion to magnify its importance.

The PRESIDENT remarked that the subject was taught in all the Scotch universities.

Dr. HERON WATSON said that not only was that so, but nurses and dressers were taught it in the Scotch hospitals and infirmaries and there were no accidents with anæsthetics there.

Sir John Battý Tuke's motion was carried.

#### *Financial Relations Committee.*

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, the Council received from the President, as Chairman of the Financial Relations Committee, and entered on their minutes, the following interim report:—

The committee report that the present relations between the General and Branch Councils are determined by the Medical Act, 1858. To modify these relations and secure a satisfactory financial basis an Amending Act will be required. The committee are not prepared at this meeting to recommend the lines on which the amendments should be framed, and ask the Council to continue the committee to the next session.

#### *The Sinking Fund.*

Mr. TOMES asked the Council to pass this motion:—

That the annual payments of £215 12s. 6d. to the Alliance Insurance Company, which form a sinking fund, be discontinued, under the terms of the agreement with the insurance company.

This fund, he explained, had been in existence for three years. But as it was one for an accumulation that would be enjoyed only 50 years hence at the expense of money which the Council required now he thought that it would be well if the annual payments were discontinued. If stopped now the Council would be able to recover the first year's payment and 10 per cent. on the "rest."

Dr. ATTHILL seconded the proposal. He said that he had opposed the origination of the sinking fund, and he believed the Council would be better without it. It was inaugurated to cover the expenditure on their premises in Oxford-street, but he was informed that so much had property in the vicinity risen in value since they acquired the premises that if they were selling to-morrow they would secure a profit of £20,000 on the cost. It would be very well to pay if they had an excess of income, but they had no excess, and, moreover, were every year selling out Consols in a falling market. He hoped the Council would pass the motion.

Mr. BRYANT, as senior treasurer, opposed the motion. He considered the sinking fund principle a sound one and that the continuance of the payments in respect of it would be most profitable to them in the future.

After further discussion it was resolved to refer the motion to the Finance Committee to report upon it next May, Mr. Tomes being added to the committee for this particular subject alone.

#### *Borrowing from the Dental Fund.*

On the motion of Mr. BRYANT, seconded by Mr. TOMES, it was agreed:—

That in order to obviate the necessity for the English Branch Council to sell out Consols at their present depreciated value the General Council sanction the temporary advance of £600 at 3 per cent. by the Dental Fund to the English Branch Council.

It was stated that this was only the return of a good turn, for at the inception of the Dental Fund the English branch had lent to it somewhere about £1100.

*The Pharmacopœia.*

Dr. MACALISTER presented the report of the Pharmacopœia Committee :—

The Pharmacopœia Committee have to report that up to the present date 31,268 copies of the British Pharmacopœia, 1898, and 320 copies of the Indian and Colonial Addendum, 1900, have been disposed of. In accordance with the Council's decision of June 7th the President in July authorised a fresh issue of 1500 copies of the Pharmacopœia. The opportunity was taken to insert a slip correcting a few minor errors in the text.

At the request of the Executive Committee the Secretary of State for the Colonies addressed a circular despatch, dated July 13th, 1901, to the officers administering the governments of the various colonies. The despatch sets forth the rights and duties in relation to the publication of the Pharmacopœia assigned to the Medical Council by the Medical Acts, 1858 and 1862, and communicates the desire of the Council that any colonial legislation for the adoption of the Pharmacopœia in the colonies should contain provisions for the safeguarding of the Council's rights.

Replies to the despatch received from a considerable number of Colonial Governments have been forwarded to the President by direction of Mr. Chamberlain, and from these it appears that the statutory claims of the Council will receive due attention from the Governments in question, should occasion arise for local legislation in reference to pharmacy.

The President has referred to the committee a communication from the Secretary of State for India asking that 3500 copies of the Indian and Colonial Addendum may be furnished for the use of the Government of India. In view, however, of the conditions obtaining in that country the Secretary of State requests that certain alterations affecting three of the formulæ in the Addendum should be made in the copies despatched to India.

The committee have considered in what manner this request of the Indian Government may best be met, and they are of opinion that by sanctioning the insertion of two short paragraphs in the appendix, with consequential alterations in a few lines of the text, the Council can do what is necessary to adapt the Addendum for official use in India.

He explained that the publishers of the book had informed the Council that they were £1500 to the good in respect to the British edition. The sale of the Indian Addendum had been rather disappointing, as only 320 copies had been asked for outside the Government order. For that order alterations required to be made in formulæ, but what these were he could explain only *in camera*.

For a while the Council sat in private. On the readmission of the public,

The PRESIDENT intimated that the Council had passed two resolutions as follows :—

1. That the issue of a "Government of India edition" of the Addendum, including the modifications communicated to the Council *in camera*, be sanctioned by the Council for use in India. 2. That the Executive Committee be empowered to take on behalf of the Council the necessary steps for the publication of the "Government of India edition" of the Addendum.

*The Apothecaries' Hall, Dublin.*

Mr. BRYANT submitted a report by the Examination Committee on the inspection in July last of the examinations of the Apothecaries' Hall, Dublin, by the Inspector, Dr. W. P. Herringham, and the Assistant Examiners in Surgery, Mr. Alexis Thomson and Mr. H. G. Howse, appointed by the General Medical Council, together with remarks by the body inspected. He also submitted a report on the inspection in October last of the examinations of the same licensing body. In the first of these two reports the committee stated :—

It is satisfactory to read that the "Inspector" and the surgical examiners of the Apothecaries' Hall, Dublin, report of the July examination that it was "thoroughly and satisfactorily conducted"; and the standard of knowledge required was satisfactory; also that the governor and court of the body inspected "were pleased to observe that these reports continue to be so favourable." Your committee note that there were but two candidates for the first examination, one for the second, none for the third, and four for the fourth or final. One of the two candidates for the first examination was passed in anatomy and rejected in pharmacy. The second candidate passed in all the subjects of the examination. The single candidate for the second examination passed in anatomy and materia medica. Of the four candidates for the final examination one passed in medicine and ophthalmology and was rejected in surgery and obstetrics, whilst the two other candidates were rejected in all subjects. The above record does not seem satisfactory to this committee, as it clearly indicates that candidates for this examination are of an inferior class of men, who seem to be incapable of passing a good examination in any important group of subjects, and can only obtain their licence to practise by what this Council condemns—the piece-meal method of passing examinations long spun out. The introduction of such men into the profession is not, from your committee's point of view, to the advantage of the public.

The October report stated that there were no candidates for the first, second, or fourth examinations, but there were two for the third, both of whom were candidates in April. One of these passed in hygiene but was rejected in pharmacy. The other passed in all subjects.

These reports, on Mr. BRYANT's motion, seconded by Dr. PETTIGREW, were received and entered on the minutes.

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, it was agreed :—

That the attendance of Dr. Herringham be not required at the final examination of the Apothecaries' Hall, Dublin, on the occasion in 1902 when the Council's Inspector of final examinations is present.

*Public Health.*

Dr. BRUCE presented the following report :—

The Public Health Committee beg to submit the following Report :  
1. Correspondence with the India Office with regard to recognition of Major Weir and others as qualified to give certificates in laboratory and outdoor work. 2. Communication from the Conjoint Board of Physicians and Surgeons in Ireland as to the sufficiency of instruction and training in public health in the cases of two candidates admitted for examination. 3. Report of a meeting with a deputation of London teachers of public health.

With regard to 1 the committee have to explain that the request of the Government of India came to the Council office in July. The President was of opinion that an early answer should be sent and that the matter could not be delayed until the November meeting. No other answer than that which was given seemed possible in view of the repeated declarations of the Council that the public health diploma is one implying a specially high standard both of study and examination.

With regard to 2 the committee recommend the Council to direct the Irish Branch Registrar not to register any diploma in public health which may have been obtained by Dr. Alfred Moore and Mr. M. B. Costello, inasmuch as they have not complied with the requirements of the curriculum, and recommend the Council to send an answer to the Conjoint Board to that effect.

With regard to 3, the committee are of opinion that the resolutions and rules adopted by the General Council on December 5th, 1900, for the diploma in public health should be amended by the substitution of three months for six months' outdoor sanitary work now required, the committee being, however, still of opinion that a total period of not less than nine months should be devoted to public health study.

The first and second recommendations having been adopted,

Dr. BRUCE moved the adoption of the third. He explained that it was thought desirable to make the change thus proposed because of the difficulty that had been experienced, in London particularly, in securing six months' "day-by-day" association "in the duty, routine and special, of public health administration under the supervision of the medical officer of health of a county or of a single sanitary district." So difficult had it been in the metropolis to get teachers that the whole country had been thrown open as a training-ground for candidates for diplomas.

Dr. NORMAN MOORE seconded the motion.

Dr. MACALISTER objected. The existing rules and regulations, he said, had hardly yet come into operation. He thought that only one examination had been held under them. They had been already more than once changed in the past three or four years, and it was very inconvenient generally that the Council should not know their own mind on the matter. With regard to the change proposed, he believed that the same difficulties experienced in respect to the six months would be found operating if three were substituted. The six months, moreover, had been in force for years, so the question of difficulty which was now raised was not new.

It was resolved to refer the recommendation back to the committee for a report upon it next session.

*Registration of Students.*

Sir HUGH BEEVOR submitted a report by the Students' Registration Committee on exceptional cases dealt with by them.

The report was approved and entered on the minutes.

*Final Examinations.*

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, it was resolved to appoint Sir George Duffey as inspector of the final examinations for the year 1902.

*The Recognition of Italian Medical Degrees.*

The following "notice of motion" by Mr. HORSLEY stood on the programme :—

That it be represented to His Majesty's Privy Council that in reference to the Order in Council imposing on the General Medical Council the duty under Part II. of the Medical Act, 1886, of the official recognition of Italian medical degrees, the funds at the disposal of the General Council do not allow of any inspection of the examinations of the Italian universities being made, as is applied to the examinations of the universities in the United Kingdom, and that application should be made to the Privy Council to obtain a grant in aid for this purpose.

On this Order being reached Mr. HORSLEY intimated that he withdrew it.

*Inspection of Preliminary Examinations.*

The following motion, moved by Sir JOHN BATTY TUKE and seconded by Dr. NORMAN MOORE, was passed :—

That the sum of £50 be placed at the disposal of the Education Committee for the purpose of providing for the inspection of certain of the

recognised Preliminary Examinations in general education during the year 1902.

#### *Multiplicity of Examinations.*

Dr. MACALISTER, on behalf of the Business Committee, asked the Council to place on their minutes a memorial addressed to them and to the councils of the Pharmaceutical Society, the Incorporated Law Society, the Royal Institute of British Architects, the Institute of Civil Engineers, the Institute of Actuaries, the Institute of Chartered Accountants, and the Society of Accountants, by the committee of the Headmasters' Conference. This document called attention to the

grave inconvenience and waste which arise from the multiplicity of examinations for entrance to professions. The Law Society, Actuaries, Architects, Chartered Accountants, and Society of Accountants had entrance examinations of practically the same standard, but as each included one or more special books the effect of the diversity upon schools was very serious, while there was the expense of five separate examinations whereas one would serve. The councils of the five societies enumerated, "as well as two others (the General Medical and the Pharmaceutical), which hold no examinations of their own, publish lists of public examining bodies whose certificates they accept in lieu of their own. This arrangement, which is intended to save candidates from trouble and expense, is only very partially successful. For no two of these lists coincide; and almost every one of the examining bodies in question sets its own special books and has its own separate definition of history, geography, and elementary mathematics. For the majority of candidates and of schools, therefore, this well-meant concession presents the same difficulties in another form. The syllabuses of the professional examinations make it clear that all the councils have the same object in view, to ascertain whether the candidates have been sufficiently well educated on the usual lines. While sympathising with this desire, the Head Masters' Committee think the object can be better attained by much simpler means. They venture to suggest to the seven professional councils that a conference should be held between representatives of the councils, the Headmasters' Conference, the Incorporated Association of Head Masters, the universities, and the Board of Education. Such a conference might devise a scheme for a combined examination, the results of which could be accepted by all the councils concerned."

This memorial was entered on the minutes.

Dr. WINDLE thereupon moved :—

That the Council recognises the disadvantages arising from the present multiplicity of examinations qualifying for entrance to the various professions, but that, being unable itself to take any active step in the matter, the Council do forward the memorial from the Committee of the Headmasters' Conference to the Lord President of the Council with a suggestion that this is a suitable question for the consideration of the Consultative Committee to the Board of Education.

In supporting this motion Dr. Windle said that the Board of Education was the only body in this country able to establish a single examination in preliminary subjects, or say who should do it. The one thing which apparently was needful was to follow the example embodied in the Scotch "leaving certificate."

Dr. MACALISTER seconded the motion, which was at once agreed to.

#### *Vote of Thanks to the President.*

Dr. GLOVER, noting that the programme of business was finished, asked permission to propose a final motion—one that at the end of their controversial subjects was without controversy. What he wished to do was to propose a vote of thanks to Sir William Turner, their President, for his conduct in the chair during the session—a session in which he had had harder work than he had had in any of the sessions of the past. He (Dr. Glover) had sat at that Council for many years and had seen what were their President's courtesy and consideration to the members, but in no previous session had these qualities of his been more in demand and more happily illustrated, and he now wished to propose a vote of thanks to Sir William Turner for his conduct in the chair.

The Council responded by clapping their hands.

The PRESIDENT, in acknowledgment, said that Dr. Glover had more than once proposed a vote of thanks to him at the conclusion of the Council's business. For this one he thanked those who had responded, but he was sorry that he was not likely again to receive on the same initiative a compliment such as that which had just been paid to him.

The Council then rose.

#### THE TEACHING OF MEDICAL PHYSICS.

The following memorial to the General Medical Council protesting against the relegation of chemistry, physics, and biology to the school period of the education of medical students has been signed, as will be seen, by a highly distinguished group of Scotch teachers :—

The position of the purely scientific subjects of chemistry, physics, and biology in the medical curriculum being one of

the questions at present before the General Medical Council we would beg to submit the following expression of our views.

The proposal to relegate the teaching of these subjects to the school period appears to us a retrograde step and one which is calculated to have a most prejudicial effect on medical education. The object of these sciences in a medical curriculum is to ensure a real scientific training for the student and to inculcate scientific method which he can apply to his purely professional studies. Were a parrot-like knowledge of the mere facts and formulæ of science all that is desired the committing of these to memory might be done at school, but knowledge thus obtained is of little practical and no educational value.

Medicine is becoming more and more scientific in its methods, and it is only by a sound training in the principles of science that the medical man of the future can hope to keep abreast of its developments and be properly equipped for his practice.

What should be aimed at therefore by those who care for the proper training of the student and the consequent status of the profession is a knowledge of scientific principles.

In view of this it would be greatly to the benefit of the medical profession were the standard of the first professional examination in science even raised and certain alterations made in the course of study, such as compulsory practical work.

To acquire a scientific training of real value it is necessary that the student devote his whole energy to the subjects in question. This is manifestly impossible when the preliminary examination in general knowledge is impending.

The methods of teaching best adapted to give the desired result—a true scientific training—are quite distinct from those suited to the school, and, further, the power of grasping scientific generalisations is seldom developed till a later stage than that at which the preliminary examination should be passed.

In our opinion, therefore, no graver mistake could be made than that the General Medical Council should agree to the relegation of those subjects to the school period.

MALCOLM LAURIE, Professor of Zoology.

JOHN YOUNG, Professor of Zoology, University of Glasgow.

FREDERICK BOWER, Professor of Botany, University of Glasgow.

A. GRAY, Professor of Physics, University of Glasgow.

D'ARCY W. THOMPSON, Professor of Zoology, University of Dundee.

JAMES WALKER, Professor of Chemistry, University of Dundee.

J. P. KUENEN, Professor of Physics, University of Dundee.

J. M. WATSON, Professor of Chemistry.

PETER BENNET, Professor of Physics.

J. BELL TODD, Professor of Zoology.

J. SWANSON, Professor of Botany.

J. BLYTH, Professor of Physics.

BEATH HENDERSON, Examiner in Biology.

ARTHUR T. MASTERMAN, Lecturer on Zoology.

DAWSON TURNER, Lecturer on Physics.

IVISON MACADAM, Lecturer on Chemistry.

J. FALCONER KING, Lecturer on Chemistry.

Glasgow, November, 1901.

## THE ELECTION OF DIRECT REPRESENTATIVES.

### SCOTLAND.

Dr. W. BRUCE has been returned by a majority of over 100 votes as Direct Representative for Scotland upon the General Medical Council.

**THE ORGANISATION OF NURSING.**—The Society of American Women in London entertained the nurse delegates to the recent International Congress of Nurses at Buffalo at a reception in the rooms of the society at Prince's Hall on Nov. 29th. The delegates gave the results of their observations on nursing in America. There was a large gathering.

## Medical News.

**UNIVERSITY OF CAMBRIDGE.**—At the congregation on Nov. 30th the following degree was conferred:—

*M.B.*: J. S. Clarke, Gonville and Caius College.

The Allen Scholarship, of the value of £250 for one year, will be vacant in the Lent term. Candidates must hold a degree in the University and be under 28 years of age. They must be prepared to undertake research in some branch of medicine, mathematics, natural science, or moral science. They are requested to send in their names to the Vice-Chancellor not later than Feb. 1st, 1902.

**FOREIGN UNIVERSITY INTELLIGENCE.**—*Cracow*: Dr. August Wróblewski has been recognised as *docent* of Biological Chemistry.—*Göttingen*: Dr. Bickel and Dr. Waldvogel have been recognised as *privat-docenten* of Internal Medicine.—*Kiel*: The newly-established asylum for the insane has been placed under the charge of Professor Simmerling who will give clinical instruction therein.—*Naples*: Dr. Camaggio and Dr. Ugo De Rinaldis have been recognised as *privat-docenten* of Surgical Anatomy and Operative Medicine and Dr. G. Sorge as *privat-docent* of Diseases of Traumatic Origin.—*Vienna*: Dr. Kraft-Ebing has resigned the chair of Psychiatry and the charge of the Psychiatric Clinic. The former post will be filled by Professor Gabriel Anton of Gratz and the latter by Professor von Wagner-Jauregg. Dr. Heinrich Lorenz, *privat-docent* of Internal Medicine, has been granted the rank of Extraordinary Professor. Dr. E. Schiff, *privat-docent* of Dermatology, and Dr. K. A. Herzfeld, *privat-docent* of Gynaecology, have also obtained the same distinction.

**MEDICAL MAGISTRATE.**—The Mayor of Saltash, Dr. Robert Thornton Meadows, was sworn in as a justice of the peace for the county of Cornwall on Nov. 27th.

**ENTERIC FEVER AND MILK.**—At the meeting of the Newton Abbot Rural District Council held on Nov. 27th, Dr. H. B. Mapleton, the medical officer of health, reported 12 cases of enteric fever at Kingskerswell which he had traced to an insanitary dairy.

**OFFENSIVE TRADES.**—At the Liskeard Town Hall on Nov. 29th, a firm was summoned for carrying on the business of fellmongers without the consent in writing of the urban sanitary authority and was ordered to pay a fine of £2 and costs.

**PRESENTATION TO A MEDICAL PRACTITIONER.**—A presentation has been made to Mr. Stenson Hooker, M.D. Durh., by his friends and patients, on the occasion of his leaving Hastings for London, of a silver tea and coffee service and cake-basket, together with an oak tea-tray upon which is engraved a suitable inscription.

**DRAINS INTIMATELY ASSOCIATED WITH RELIGION.**—The Rev. F. Lawrence, honorary secretary of the Church Sanitary Association, preaching last Sunday in the parish church of Westow, near York, upon the text taken from the Epistle for the day, "Put ye on the Lord Jesus Christ," said that the Founder of the Christian religion, Who cared "as well for the body as the soul," expects His followers to do their best to secure fulness in respect of bodily well-being for all persons, and hence that drains are intimately associated with true religion.

**OTOLOGICAL SOCIETY OF THE UNITED KINGDOM.**—At a meeting of this society held on Dec. 2nd, the following gentlemen were elected office bearers for the next session, 1901-1902:—President: Dr. Urban Pritchard. Vice-presidents: Dr. Peter McBride, Dr. Edward Law, and Dr. Arthur W. Sandford. Honorary Treasurer: Mr. Alphonso Elkin Cumberbatch. Honorary Librarian: Mr. E. Cresswell Baber. Editor of Transactions: Mr. Arthur H. Cheate. Honorary Secretaries: Dr. William Milligan and Dr. W. Jobson Horne. Council: Sir William Dalby, Dr. Adolph Bronner, Dr. Dundas Grant, Mr. Charles A. Ballance, Mr. Stephen Paget, and Professor John B. Story.

**ST. ANDREWS GRADUATES' ASSOCIATION.**—At the annual general meeting held at 11, Chandos-street,

Cavendish-square, W., on Nov. 29th, the following officers were elected for 1901-1902:—President: Sir Charles Gage Brown, K.C.M.G., M.D. Vice-presidents: Surgeon-General W. B. Beatson, Dr. R. L. Bowles, Dr. R. Braithwaite, Dr. T. B. Crosby, Dr. T. Duka, Deputy Surgeon-General E. McKellar, and Professor J. Bell Pettigrew, M.D., F.R.S. Treasurer: Dr. T. Langston. Honorary Secretary: Dr. W. Rigden.

**MR. J. E. O'CONNOR, M.B., B.Ch. R.U.I., D.P.H. Camb.**, medical officer of health of Lowestoft, has been appointed medical officer of health of the combined districts of Leicestershire, Rutland, and Warwick. Dr. O'Connor is a captain in the Militia Medical Staff Corps and during the campaign in South Africa he acted as medical officer of health at Pretoria, being chosen by Earl Roberts for the post.

**HOW DISEASE IS SPREAD.**—At the Lawfords Gate Petty Session held on Nov. 28th, a woman, residing near Bristol, was summoned at the instance of the Barton Regis Rural District Council, for allowing her child to be on the highway whilst suffering from diphtheria. She had been advised to let the child go to the isolation hospital, but had refused to do so. The clerk to the council said that there had been 140 cases of diphtheria in the district. The defendant was ordered to pay a fine of 5s. with 50s. costs.

**ROYAL BRITISH NURSES' ASSOCIATION.**—The fourteenth annual conversazione of the Royal British Nurses' Association was held on Dec. 3rd at the Kensington Town Hall, when the guests were received by Miss Thorold, Mrs. Coster, Sir J. Crichton Browne, Mr. T. Pickering Pick, Mr. J. Langton, and Mr. Fardon. There was an excellent vocal and instrumental entertainment. The association, which was founded in 1887, has now a fund for the establishment of a settlement for nurses to live in, rent free, after they are too old to work. Small pensions are also granted. A bazaar in aid of the settlement building fund will be held on Feb. 6th and 7th, at 24, Park-lane, W., when Princess Christian has promised to open the bazaar and to preside at one of the stalls.

## BOOKS, ETC., RECEIVED.

ARNOLD, EDWARD, 37, Bedford-street, Strand, W.C.

A Text-book of Zoology. By G. P. Mudge, A.R.C.Sc. Lond., F.Z.S. Price 7s. 6d.

BOYER, L., 15, Rue Racine, Paris.

Vade-mecum d'Obstétrique et Gynécologie des Médecins-Praticiens. By Dr. Henri Fischer. Price 4 fr. 50.

CHURCHILL, J. & A., 7, Great Marlborough-street, W.

Transactions of the Ophthalmological Society of the United Kingdom. Vol. xxi., Session 1900-1901. With List of Officers, Members, &c. Price 12s. 6d.

Elementary Ophthalmic Optics, including Ophthalmoscopy and Retinoscopy. By J. Herbert Parsons, B.S., B.Sc., F.R.C.S., Curator, Royal London (Moorfields) Ophthalmic Hospital. Price 6s. 6d.

GEORGE NEWNES, Southampton-street, Strand, W.C.

The First Men in the Moon. By H. G. Wells, Author of "Tales of Space and Time," "Love and Mr. Lewisham," &c. Price 6s.

GRIFFIN, CHARLES, AND COMPANY, LIMITED, Exeter-street, Strand, W.C.

Year-book of the Scientific and Learned Societies of Great Britain and Ireland, comprising Lists of Papers read from January, 1900, to June, 1901. Price 7s. 6d.

JOHN BALE, SONS, AND DANIELSSON, Limited, 83, Great Titchfield street, W.

Bale's Dental Surgeon's Daily Diary and Appointment Book, 1902. Price 7s. plain; 8s. 6d. interleaved with ruled or blotting paper.

KNOWLEDGE OFFICE, 326, High Holborn, W.C.

Knowledge Diary and Scientific Handbook for 1902. Price 3s. net.

MURRAY, JOHN, Albemarle-street, W.

The Descent of Man and Selection in Relation to Sex. By Charles Darwin, M.A., F.R.S. New edition. Price 2s. 6d. net.

The Origin of Species by means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life. By Charles Darwin, M.A., LL.D., F.R.S. Popular impression of the corrected copyright edition, issued with the approval of the author's Executors. Price 1s. net.

SCIENTIFIC PRESS, LIMITED, 28 and 29, Southampton-street, W.C.

Syllabus of Lectures to Nurses. By Andrew Davidson, M.D., Port Health Officer, Singapore, late of Dorset Asylum. Price 1s.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ACLAND, H. T. D., L.R.C.P., M.R.C.S., has been appointed Junior Obstetric House Physician at St. Thomas's Hospital.

BIRKBECK, L. H. C., B.A., M.B., B.Ch. Oxon., has been appointed House Physician at St. Thomas's Hospital.

BOWDLER, A. P., B.A. Cantab., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant to the Throat Department at St. Thomas's Hospital.

CHILD, F. J., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon at St. Thomas's Hospital.

CHOYCE, CHARLES C., M.B., Ch.B. Edin., B.Sc. New Zealand, has been appointed House Physician to the Leicester Infirmary.

CLARKSON, F., M.B., B.S. Durh., has been appointed Clinical Assistant to the Skin Department at St. Thomas's Hospital; also Clinical Assistant to the Ear Department.

DOWNES, T. W. H., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon at St. Thomas's Hospital.

DUDGEON, L. S., M.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Electrical Department at St. Thomas's Hospital.

DUNCAN, ANDREW, M.D., B.S. Lond., M.R.C.P., F.R.C.S., has been appointed Physician to the Westminster Dispensary.

GLANVILLE, W. M. G., B.A., M.B., B.Ch. Oxon., has been appointed House Physician at St. Thomas's Hospital.

GOUGH, H. E., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer of Health for the Rural District of Northwich.

GRIMWADE, A. S., L.R.C.P., M.R.C.S., has been appointed House Surgeon at St. Thomas's Hospital.

HAMILTON, A. D., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant to the Throat Department at St. Thomas's Hospital.

HARVEY, FRANK, M.R.C.S., L.S.A., has been appointed Medical Officer of Health for Padstow, Cornwall.

HENDERSON, T. B., M.A., M.B., B.Ch. Oxon., has been appointed Assistant House Physician at St. Thomas's Hospital.

HILL, W., B.A. Cantab., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon at St. Thomas's Hospital.

HODSON, V. S., B.A., M.B., B.Ch. Oxon., has been appointed House Physician at St. Thomas's Hospital.

HUNT, S., L.R.C.P., M.R.C.S., has been appointed House Surgeon at St. Thomas's Hospital.

LOW, V. WARREN, F.R.C.S., has been appointed Surgeon to Out-patients at the Great Northern Central Hospital, Holloway-road, N.

MARR, H. C., M.D. Glasg., has been appointed Medical Superintendent at Woodilee Lunatic Asylum, Lenzie, vice Dr. Robert Blair.

MENNELL, Z., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric House Physician at St. Thomas's Hospital.

NITCH, C. A. R., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed House Surgeon at St. Thomas's Hospital.

O'CONNOR, J. E., M.B., B.S., R.U.I., D.P.H. Camb., has been appointed Medical Officer of Health for the combined districts of Leicestershire, Rutland, and Warwick.

PARRY, LEONARD A., F.R.C.S. Eng., B.S., M.D. Lond., has been appointed Assistant Surgeon to the Royal Alexandra Hospital for Children, Brighton, vice Mr. T. H. Ionides, resigned.

PATERSON, T. W. S., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed House Physician at St. Thomas's Hospital.

SHIPMAN, G. A. C., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon at St. Thomas's Hospital.

SINCLAIR, NORMAN J., M.B., Ch.B. Aberd., has been appointed Medical Officer of Health and Police Surgeon for the Burgh of Brechin.

STANNUS, H. S., L.R.C.P., M.R.C.S., has been appointed Assistant House Physician at St. Thomas's Hospital.

SPOKES, H. FRASER, M.D., has been appointed Medical Officer to the Highbury Truant School of the London School Board.

THOMSON, B., M.B. Glasg., has been appointed Assistant Medical Officer of the Holborn Infirmary at Highgate.

TIMMINS, J. L., M.A., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant to the Skin Department at St. Thomas's Hospital.

WOODS, W. H. O., B.A., M.B., B.C. Cantab., has been appointed House Surgeon at St. Thomas's Hospital.

WYNTER, WALTER ESSEX, M.D., B.S., F.R.C.S., F.R.C.P., has been appointed Physician to the Middlesex Hospital.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

BETHLEM HOSPITAL.—Two Resident House Physicians for six months. Honorarium at rate of £25 each per quarter, with board and washing.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, unmarried. Salary £100 per annum, with board and residence.

BURGH OF PAISLEY INFECTIOUS DISEASES HOSPITAL.—Resident Physician. Salary £100 per annum, with board, washing, and attendance.

COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer, unmarried. Salary £150 per annum, with prospect of increase, and apartments, board, attendance, and washing.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—House Surgeon and Assistant House Surgeon. Salary, House Surgeon £100 per annum, Assistant £50 per annum, with apartments, board, and lodging.

DOWN DISTRICT LUNATIC ASYLUM, Downpatrick.—Assistant Medical Officer, unmarried. Salary £150, increasing to £200, with apartments, board, washing, and attendance.

GREAT NORTHERN CENTRAL HOSPITAL.—Assistant House Surgeon for six months. Salary at the rate of £30 per annum, and board.

LINCOLN COUNTY HOSPITAL.—Junior House Surgeon for six months, eligible for re-election. Honorarium of £25 for each period of six months, and board, residence, and washing.

MIDDLESEX HOSPITAL, W.—Assistant Physician.

NOTTINGHAM GENERAL HOSPITAL.—House Surgeon. Salary £100, rising to £120, with board, lodging, and washing.

QUEEN'S JUBILEE HOSPITAL.—Two Surgeons and Physicians, also Ophthalmic Surgeon.

ROCHDALE INFIRMARY.—Resident Medical Officer, unmarried. Salary £100 per annum, with board, residence, and washing.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Resident House Surgeon. Salary £100. Also Assistant House Surgeon. Salary £75, both with board, residence, and laundry.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Obstetric Tutor.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—House Surgeon. Salary £120 per annum, with board, lodging, and washing.

SWANSEA GENERAL AND EYE HOSPITAL.—Resident Medical Officer. Salary £75 per annum, with board, apartments, washing, and attendance.

TOTTENHAM HOSPITAL.—House Surgeon. Salary £50 per annum, with board, residence, laundry, &c.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Second House Surgeon, unmarried. Salary £80 a year, with board, residence, and laundry.

WEST HAM HOSPITAL, Stratford, E.—Junior House Surgeon for six months, renewable. Salary £75 per annum, with board, residence, &c.

WESTMINSTER GENERAL DISPENSARY.—Resident Medical Officer. Also Honorary Surgeon.

WORCESTER COUNTY AND CITY ASYLUM.—Junior Assistant Medical Officer. Salary £120, rising to £150, with board, apartments, and washing.

## Births, Marriages, and Deaths.

### BIRTHS.

BENHAM.—On Nov. 26th, the wife of Charles H. Benham, M.D. Lond., of a daughter.

DRAKE.—On Nov. 28th, the wife of Courtenay H. Drake, F.R.C.S., of a son.

MILLS.—On Nov. 30th, at Cookham, the wife of Frederick Andrew Mills, B.A., M.B., B.C. Cantab., of a daughter.

POTTS.—On Nov. 27th, at Birmingham, the wife of W. A. Potts, M.D. Edin., of a son.

### MARRIAGES.

GENGE—WHEELDON.—On Nov. 28th, George Gilbert Genge, M.D., B.S. Lond., to Catherine, second daughter of the late George Wheeldon.

JONES—DIXON.—On Nov. 23th, Robert Orford Jones, L.R.C.P. Edin., L.R.C.S. Edin., to Mrs. Ellen Flower Dixon.

PROWSE—FORD.—On Nov. 28th, William Barrington Prowse, M.R.C.S., L.R.C.P. Lond., to Mabel, youngest daughter of the late William Barton Ford.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## Notes, Short Comments, and Answers to Correspondents.

### STILL THE CHEAP PISTOL.

PISTOL tragedies are now almost weekly occurrences and we need hardly notice those which do not end fatally for anyone. This time it is a gas-stoker in Lambeth who, after duly threatening his victim in a letter with something that he kept in his pocket, proceeded to her house, shot her, and then shot himself. The girl at the time of writing is still alive; the man is dead. Further comment is not needed. On the day of the Lambeth tragedy referred to a hawker was arrested for being drunk and assaulting another man on the top of an omnibus by striking him on the head with a revolver, which turned out to be loaded in all its six chambers; but as the revolver did not go off, and consequently no one was killed, the matter is perhaps too trivial to be worthy of notice. The death of the mayor of a provincial town in France by a revolver shot fired in a scrimmage in the municipal chamber was reported in the newspapers on the same date (Nov. 26th) as the two other matters to which we have alluded, but it has no direct bearing on the question of cheap revolvers sold without inquiry to any customer, as presumably the restrictions we wish to see imposed, even had they existed. France, would hardly have prevented a borough councillor from acquiring his weapon. The incident, however, points to the increased and increasing extent to which pistols are carried by apparently peaceful and respectable persons in peaceful and civilised countries.

### FRIENDLY SOCIETIES AND THEIR MEDICAL AID INSTITUTIONS.

To the Editors of THE LANCET.

SIRS,—The almost contemptuous patronage of the profession by your correspondent in THE LANCET of Nov. 30th, p. 1554, on the subject of friendly society medical aid associations would be very amusing if it [were] not offensive. Your correspondent boasts of the privileged position of these medical exploitation syndicates as compared with that of men practising in their own names. The fact that such as he should glory in our shame ought to be sufficient to infuse energy into the feeble medical backbone to enable us to sweep away once and for all this miserable pretence of justice and fair dealing. Plainly the method of practice is this—that a number of persons shall combine to employ a medical man for their own uses and at their own price, that they shall take the money subscribed and give him so little as they deem fitting, that he shall attend their confinement cases for 10s each, and extract their valuable teeth for a penny or for nothing, and that he shall sacrifice all independence to act as their professional hack, as their hired servant. The men who attempt to drive, and too often succeed, this hard bargain with the profession are not poor workmen. The British working man would be ashamed to treat a fellow workman in this scurvy fashion. The ringleaders of the system are men well able to pay a medical man decent fees. They obtain their cheap attendance by the sweating of the unfortunate practitioner who falls into their clutches and from the comparatively adequate payments of the poor. But the shabby fraud does not end here. If one conceded the point that it might be right to exploit the profession in this way, which I for one will not, it would still be evident that these very independent institutions should be self-supporting; but are they? Emphatically no! In cases of accident, of emergency, of serious operation, they fall back on the hospital and its honorary surgeons. If they adopt the system they should do it thoroughly and render themselves and their medical nominees independent of outside help. I contend that this practising by a syndicate or by a committee through a salaried servant, in the interest of men who cannot plead poverty as an excuse, is a species of covering, and that as such we ought to demand its suppression or strict regulation by the General Medical Council.

I am, Sirs, yours faithfully,

Loughborough, Nov. 30th, 1901. J. B. PIKE.

### THE OUTBREAK OF INFLUENZA IN 1742.

In the *Yorkshire Herald* passages are being occasionally reproduced from the *York Courant*, a well-known paper in the eighteenth century, and a recent extract bearing the date 1742 has a distinct medical interest. "By private letters from Rome," says the *York Courant* 160 years ago, "we have a very melancholy Account of the surprising Progress an Epidemical Distemper called the Influenza, makes there; that in one day 500 persons were carried to their Grave by it; that scarce a Noble Family in that City had not lost some person; and Hearses, Coffins, and the Host carrying to the Sick were to be met with in all the streets. They observe that this distemper began in Saxony last September, had visited Venice, Genoa, Milan, and Florence, in the latter it still continued; that it had reached the city of Naples, but had not made much Havoc; that the Venetians had begun a Land Quarantine; and that it was expected the Sea Coasts of other Countries would do the same. Though not in itself a plague, the Physicians of those parts reckon it a Forerunner."

### DIFFERENTIAL DIAGNOSIS BETWEEN SMALL-POX AND CHICKEN-POX.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Oct. 12th, p. 1007, there appeared a letter on the above subject, and I agree with the writer, Dr. G. S. Perkins, that the point noted by him furnishes us with one of the most reliable means of distinguishing the two diseases. What I wish to call attention to, however, is that, although undoubtedly the severity of the chicken-pox rash on the face is, as a rule, nothing compared to that of small-pox, yet exceptions do occur. In Fagge's "Medicine" (second edition, vol. i., page 245) one reads: "Formerly it [the eruption of varicella] was said to spare the face; and although this is incorrect it certainly does not come out more thickly there than elsewhere, as is the case with variola." In the beginning of September last I was called to see a boy whose parents were afraid that he had developed small-pox, as they had recently returned from Glasgow. When I saw the patient I rapidly diagnosed chicken-pox, and this in spite of the fact that his face and ears were literally covered with vesicles and there was little eruption elsewhere. I had many points of difference to go upon, but the pricking of a few of the vesicles was decisive.

I am, Sirs, yours faithfully,

Dec. 3rd, 1901.

VARICELLA.

P.S.—The diagnosis in this case was clear enough; what I wish to emphasise is the peculiar distribution of the exanthem.

### DOUBTFUL COMPLIMENTS.

To the Editors of THE LANCET.

SIRS,—Have you not missed a point in dealing with the matter of Dr. Lunn's complimentary tickets to medical men? I have made inquiries and I doubt if the real position of Dr. Lunn's firm in the matter is quite clear in your columns. Let me take the case of a trip to Rome to illustrate my meaning. The complimentary 1st class return ticket to Rome is £16 1s. 8d., instead of £17 17s. Do the recipients of these complimentary tickets know how much they cost Dr. Lunn's firm? Just £10 18s. 3d. They are certainly "society" tickets, available only on fixed days, and the price of these tickets is, I am credibly informed, £10 18s. 3d. Dr. Lunn puts down the expenses of seven days' *en pension* in Rome at £3 5s. Accepting his figures, if we add £3 5s. to £10 18s. 3d. we have a total of £14 3s. 3d. £14 3s. 3d. is the cost to Dr. Lunn's firm of the complimentary ticket, for which the receiver of the compliment pays £16 1s. 8d. as a favour, being expected to return the favour by lauding the methods of the firm.

I am, Sirs, yours faithfully,

Kensington, Dec. 4th, 1901.

M.B.

### A SUGGESTION FOR TREATMENT.

To the Editors of THE LANCET.

SIRS,—In reply to "M.B. Lond." in THE LANCET of Nov. 30th, p. 1554, I would recommend the following treatment: one drachm of tincture of lobelia, one drachm of tincture of stramonium, 20 minims of tincture of belladonna, two minims of glycerine of carbolic acid, and distilled water to two ounces. Filter. Place a tablespoonful of the above mixture in Burroughs and Wellcome's "Paroline ointment atomiser" and let the patient forcibly inhale three or four puffs of the spray through the nostril well down into the bronchi. This will cut short an attack if used early. Will "M.B. Lond." please report result?

I am, Sirs, yours faithfully,

Montreux, Dec. 1st, 1901.

TUCKER WISE.

### MESCAL INTOXICATION.

In THE LANCET of June 5th, 1897, p. 1540, Mr. Havelock Ellis gave a lengthy account of his personal experiences of the vision-producing properties of the mescal button (the fruit of the anhalonium Lewinii). These buttons, he says, are eaten by the Kiowa and other Indians of New Mexico, and their use is connected with religious ceremonial. In his experiments Mr. Ellis cut up three buttons (a full dose) into small fragments, poured boiling water on them twice, and took this infusion in three portions at intervals of an hour. His conclusions were that "the phenomena of mescal intoxication are thus mainly a saturnalia of the specific senses and chiefly an orgy of vision." Mr. Ellis makes no mention of mescal products being in extensive popular use as an alcoholic intoxicant, but it is known that some species of agave (agave Americana, agave Mexicana, agave pulque) supply such beverages. Several of the species have a resemblance to plants of the genus aloe, with which they are sometimes confounded. Agave Americana (the so-called American aloe or century-plant, one of the maguays of South America, the mescal of Mexico), when it has reached maturity, which takes from 10 to 70 years according to the climate, sends out a stem 40 feet high surmounted by a panicle of yellow flowers. A writer in the *Echo* of Nov. 25th states that the use of agave products as alcoholic intoxicants is having a deplorable effect on the Mexican people. Pulque, he says, is made by diluting the sweet paste of the agave juice with water and leaving it for five days to ferment, but a far more deadly drink is mescal, which is distilled from the juice of a plant also belonging to the natural order amaryllidaceae, but very different from the ordinary pulque-producing agave. It is called in popular parlance the maguey and grows wild in abundance. The leaves are collected from the ripe maguey plants and carried by donkeys and mules to

a rude oven, where they are roasted for two days and then put into the vats to rot and to ferment. After being well rotted they are taken out and mashed and put into the still, an apparatus of primitive construction, from which the condensed vapour trickles out in a colourless stream, and is then redistilled. It is now put up in kegs, oval-shaped and flat on the sides, almost two feet high, and a foot and a half wide across the broadest part. Among the greater part of the community in Mexico no social entertainment is complete without copious draughts of mescal. To its use can be traced 90 per cent. of all the crimes perpetrated in the ranches and villages.

#### ADMINISTRATION OF ETHER TO YOUNG CHILDREN.

To the Editors of THE LANCET.

SIR,—From time to time it has fallen to my lot to see infants and young children being inverted, artificially respired, and otherwise stimulated in order to bring them out of a state of collapse due to the inhalation of chloroform. On my inquiry of the administrator why he did not use ether I am nearly always informed that young children either will not take ether at all or that they take it very badly. This is so contrary to my experience that I wish to draw attention to the fact that ether, given alone or with nitrous oxide, is an admirable anæsthetic for young children, always provided that plenty of air is given at the same time. I use the ordinary Clover inhaler with a small facepiece. After a few preliminary breaths of nitrous oxide the indicator is gradually turned on to about the No. 3 and the bag is removed, the child inspiring and expiring through the open inhaler and so getting a free supply of fresh air. If nitrous oxide is not available the inhaler is used without the bag from the start, the indicator worked up to "Full" in from three to five minutes, and when anæsthesia is complete moved back to near the number three. *Cæteris paribus*, the younger the child the quicker the anæsthesia and the smaller amount of ether required. The only drawback is the somewhat large amount of ether used. This might be obviated by having inspiratory and expiratory valves on the facepiece.

In regard to the old controversy of ether *versus* chloroform the conviction is gradually being forced upon me that a large number of the advocates of chloroform, in preferring chloroform, omit to state the real reason for their preference, which is simply that they do not know how to administer ether. The value of such testimony is obvious. A surgeon once described to me a ridiculous scene at which he had been assisting in which a practitioner, armed with the latest form of gas-and-ether inhaler, had totally failed to anæsthetise the patient, who at the end of half an hour was wide awake. I can quite understand such an administrator being a strong advocate of chloroform and an equally strong opponent of ether. The following are examples of cases in which during the past nine months I have used ether or nitrous oxide and ether for young children under six years of age, the limit within which chloroform is often supposed to be the best, if not the only, anæsthetic:—

Anæsthetic.	Age of patient.	Nature of operation.	Duration of administration.
Nitrous oxide and ether.	4 years.	Amputation of toe.	30 minutes.
ditto.	4 years.	Necrosis of lower jaw.	20 minutes.
ditto.	4 years.	Brasion of knee-joint.	50 minutes.
ditto.	3 years.	Radical operation for inguinal hernia.	30 minutes.
ditto.	2 years.	Abscess of groin.	15 minutes.
ditto.	11 months.	Scraping tubercular finger.	10 minutes.
Ether.	6 months.	Cauterising nevus.	10 minutes.

I am, Sirs, yours faithfully,

C. HAMILTON WHITEFORD,

Senior Anæsthetist, South Devon and East Cornwall Hospital.  
Plymouth, Nov. 29th, 1901.

#### THE CASE OF THE LATE MR. W. K. BROCK.

IN THE LANCET of Nov. 16th, p. 1387, we published an appeal for contributions to a fund on behalf of the family of the late Mr. W. K. Brock, M.R.C.S., L.S.A., L.M. (formerly in the A.M.S. but obliged to leave the service on reduction of staff), whose untimely death, owing to an accident, left in very straitened circumstances a widow and eight children. It was pointed out that it was specially urgent to collect a sum on behalf of one of these children to enable him to obtain a living for himself and eventually to help the rest of the family. The appeal was signed by George Dunlop, The Vicarage Knowle, Bristol; E. H. C. Pauli, M.R.C.S. Eng., L.R.C.P. Lond., Alma Villa, Wells-road, Knowle, Bristol; Charles Steele, M.D. Durh., F.R.C.S. Eng., Clifton Villa, Clifton, Bristol; and James Stewart, B.A. R.U.I., F.R.C.P. Edin., Dunmurry, Sneyd-park, Clifton, Bristol. This appeal has, we understand, not received the support which it deserves. The secretary states that it was hoped to receive at least £25 before Christmas, but up to the present the total does not reach much more than half that amount. As the money is being raised to

save a family from actual starvation it is hoped that this renewed appeal may not be in vain. Subscriptions will be gratefully acknowledged by Mr. B. Jones, Balcarras, Wells-road, Knowle, Bristol, and cheques should be drawn in favour of the honorary treasurer, Mr. E. H. C. Pauli, and crossed "Lloyd's Bank, Limited, Temple-gate, Bristol Branch (Brock Fund)."

T. W. B. acted correctly, as it was completely impossible, in the circumstances, to swear that the vulvo-vaginitis was of gonorrhœal origin. The medical witness could only testify to what he knew, and it would have been entirely wrong of him to back up other circumstantial evidence by stretching his own evidence to a point where science would not have endorsed him. The solicitor for the prosecution, who described "T. W. B.'s" properly restrained and accurate scientific evidence as "weak," appears not to have cared much what was said so long as a conviction was secured. This attitude is not an uncommon one, but we do not regard it with much respect.

M. D., who expresses the hope that we shall "be able to give a satisfactory reply," has omitted to inclose the card to which he alludes. Our reply, however, is that what we said in our leading article is our belief and the belief of most sensible persons. A certain class of humanitarians appear to think that a large section of the community are the victims of flagellomania, a pathological condition which, in our experience, very few medical men have ever witnessed.

R. G. and R. P.—We do not give medical advice. Both matters can be adequately dealt with by the usual medical adviser.

A. M. F.'s letter has been forwarded to the writer of the inquiry.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

#### METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 5th, 1901.

Date.	Barometer reduced to Sea Level and 59° F.	Direction of Wind.	Rain-fall.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 a.m.
Nov. 29	30.49	N.W.	...	54	46	34	33	36	Cloudy
" 30	30.42	W.	...	57	49	36	42	45	Overcast
Dec. 1	30.31	W.	...	67	51	42	45	47	Cloudy
" 2	30.25	W.	...	67	54	42	45	47	Cloudy
" 3	30.21	W.	...	55	51	45	45	48	Cloudy
" 4	30.38	W.	...	47	45	41	40	42	Foggy
" 5	30.17	S.W.	...	51	47	39	42	44	Overcast

#### Medical Diary for the ensuing Week.

##### OPERATIONS.

##### METROPOLITAN HOSPITALS.

**MONDAY (9th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynaecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopaedic (2 P.M.), City Orthopaedic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

**TUESDAY (10th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**WEDNESDAY (11th).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopaedic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

**THURSDAY (12th).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynaecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**FRIDAY (13th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London

Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square, (9.30 A.M.), City Orthopedic (2.30 P.M.).  
**SATURDAY (14th).**—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

## SOCIETIES.

**MONDAY (9th).**—MEDICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Dr. A. Crombie: The Physical Disabilities for Tropical Life.—Dr. J. Anderson: The Remote Effects of Tropical Life on Europeans.

**TUESDAY (10th).**—PHARMACEUTICAL SOCIETY OF GREAT BRITAIN (17, Bloomsbury-square, W.C.).—8 P.M. Communications from the Research Laboratory:—Prof. Greenish and Mr. Upsher Smith: Tincture of Nux Vomica.—Prof. Greenish: The Official Test for Myrrh. Papers:—Mr. E. M. Holmes: (1) Note on Pure Otto of Rose; (2) Note on the Official Test for Strophanthus Kombe.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Address: Dr. S. M. Copeman: Modern Methods of Vaccination and their Scientific Basis (illustrated by lantern slides and followed by a discussion).

**WEDNESDAY (11th).**—DERMATOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—5.15 P.M. Demonstration of Cases of Interest.

SOUTH-WEST LONDON MEDICAL SOCIETY (Bolingbroke Hospital).—Paper:—Dr. A. E. Giles: Diagnosis of Pelvic Tumours.

**THURSDAY (12th).**—CHILDHOOD SOCIETY (Library of the Sanitary Institute, Margaret-street, W.).—8 P.M. Lecture.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-street, Cavendish-square, W.).—Clinical Evening. Cases will be shown by Mr. H. W. Dodd, Mr. H. Juler, Mr. B. T. Collins, Mr. E. Stephenson, Mr. G. B. James, Mr. G. Keeling, Mr. J. B. Lawford, Mr. G. W. Roll, Mr. J. H. Fisher, and Mr. L. V. Cargill.

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8 P.M. Specimens will be shown. Paper:—Mr. S. Bishop: A Demonstration of some Changes observed in Uteri the Seat of Fibromyomata.

**FRIDAY (13th).**—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers:—Dr. Habershon: The association of Moveable Kidney on the Right Side with Symptoms of Hepatic Disturbance.—Dr. S. Wilson: The Theory of Compensation in Disease of the Mitral Valve.—Dr. W. H. White and Dr. W. O. Pakes: A Case of Malignant Endocarditis giving Widal's Reaction.—Mr. E. P. Paton: A Case of Hair Ball removed from the Stomach of a Child nine years.

EPIDEMIOLOGICAL SOCIETY (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Paper:—Dr. Mott: Dysentery in Asylums.

## LECTURES, ADDRESSES, DEMONSTRATIONS, &amp;c.

**MONDAY (9th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. J. J. Pringle: Clinique. (Skin.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Paget: Empyema.

**TUESDAY (10th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. G. Rankin: Clinique. (Medical.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Bidwell: Nephrorrhaphy and its Results.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Mr. Ballance: Surgery of the Nervous System.

**WEDNESDAY (11th).**—ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Mr. T. R. Jessop: Personal Experiences in the Surgical Treatment of Certain Diseases. (Bradshaw Lecture.)

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. J. Smith: Clinique. (Surgical.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Eccles: Surgical Anatomy.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. H. Mackenzie: Pleurisy with Effusion.

**THURSDAY (12th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Robinson: Uterine Hemorrhage.

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Mr. Lister: Demonstration of Ophthalmic Cases.

CHARING-CROSS HOSPITAL.—4 P.M. Mr. M. Murray: Medical Cases. (Post-Graduate Course.)

**FRIDAY (13th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. D. Grant: Clinique. (Bar.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. S. Taylor: Medical Anatomy.

During the week marked copies of the following newspapers have been received:—Kiddermington Shuttle, Macclesfield Advertiser, Sussex Daily News, Wills County Express, Glasgow Times, Portsmouth Evening News, Cardiff News, Bridge of Allan Reporter, North Guardian, Glasgow Herald, East Anglian Times, Coventry Telegraph, Gazette des Hôpitaux (Paris), Evening Standard, Westminster Gazette, Morning Advertiser, Standard, Daily Express, Aberdeen Weekly Press, Surrey Advertiser, Leeds and Yorkshire

Mercury, Municipal Reformer, Allgemeine Medicinische Central-Zeitung, Revista Medica de San Paulo, Liverpool Daily Post, Windsor and Eton Express, Reading Mercury, La Caducée, Hong-Kong Weekly Press, Times of India, Pharmaceutical Journal, Dublin Evening Telegraph, Southampton Echo, Stafford Advertiser, &c.

## EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side of the paper only. AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising, departments of THE LANCET should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

## MANAGER'S NOTICES.

## TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsgents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently, inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid and not to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or on any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and Agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

### Communications, Letters, &c., have been received from—

- A.**—Albion Steamship Co., Newcastle-on-Tyne, Manager of; A. B. C., Llandilo.
- B.**—Mr. G. B. Browne, Lond.; Mr. C. L. Bedford, Birmingham; Mr. A. A. Bradshaw, South Farnborough; Messrs. Bayliss, Jones, and Bayliss, Wolverhampton; Mr. W. G. Burcombe, Lincoln; Messrs. Benetfink and Co., Lond.; Messrs. R. and J. Beck, Lond.; Berkefeld Filter Co., Lond.; Dr. G. Bellei, Bologna, Italy; Mr. A. E. Barker, Lond.; Messrs. Burroughs, Wellcome, and Co., Lond.; B. O. R.; B. T.; Messrs. W. Blackwood and Sons, Lond.; Monsieur L. Boyer, Paris.
- C.**—Mr. J. P. Conway, Newport; Dr. E. H. Colbeck, Lond.; Chesterfield and North Derbyshire Hospital, Secretary of; Central London Throat and Ear Hospital, Lond.; Medical Staff of; Messrs. S. Clark and Co., Lond.; Dr. T. Carwardine, Bristol; Dr. Choksy, Bombay; Dr. Thompson Campbell, Glasgow; Clinical Society of London, Assistant Secretary of; Dr. E. P. Cathcart, Munich; Sir C. A. Cookson, Lond.
- D.**—Mr. M. L. Das, Mahadevpur, India; Herren G. L. Daube and Co., Berlin; Mr. B. Darke, Lond.; Mr. T. Dixon, Lond.; Lieutenant-Colonel J. Day, R.A.M.C., Dublin; Dr. Des Vaux, Lond.; Messrs. Dowdeswell, Lond.
- E.**—Dr. C. R. Elgood, Windsor; Messrs. W. Edwards and Son, Lond.; Dr. W. A. Evans, Bradford.
- F.**—Herr G. Fischer, Jena; Mr. H. Frowde, Lond.; Messrs. J. S. Fry and Sons, Bristol.
- G.**—Mr. H. J. Glaisner, Lond.
- H.**—Dr. J. Wilson Hamill, Manchester; Halifax Union, Clerk of; J. C. Hamilton, St. Morans; Messrs. J. Haddon and Co., Lond.
- I.**—International Plasmon, Lond.; Interstate Medical Journal, St. Louis, Editor of.
- J.**—Dr. J. B. Jobson, Ilford; Mr. T. R. Jessop, Leeds; Mr. Brooks-bank James, Lond.
- K.**—Messrs. Krohne and Seseman, Lond.; Kern Burner Co., Lond.; Secretary of; Lieutenant-Colonel Kirwan, Hounslow; Messrs. R. A. Knight and Co., Lond.; Dr. B. Knowles, Lond.
- L.**—Mr. J. L. Lock, Cambridge; Dr. Arthur Latham, Lond.; L. R.;
- M.**—Mr. J. McMurtrie, Glasgow; Maltine Manufacturing Co., Lond.; Mr. A. MacGregor, Lond.; Messrs. Mather and Crowther, Lond.; Dr. W. McCallin, Lond.; Messrs. McKesson and Robbins, New York; M.R.C.S., Claremont; Mr. E. D. Marriott, Nottingham; Messrs. C. Mitchell and Co., Lond.; Meyrowitz Manufacturing Co., New York; Dr. J. D. E. Mortimer, Lond.; Mr. F. Montague Miller.
- N.**—Notts County Lunatic Asylum, Sneinton, Clerk of; Messrs. J. R. Neave and Co., Porting-bridge; Nottingham General Hospital; Mr. J. C. Needes, Lond.; Mr. H. Needes, Lond.
- P.**—Mr. F. E. Potter, Lond.; Mr. Y. J. Pentland, Edinburgh; Price's Patent Candle Co., Lond.; Portable Building Co., Fleetwood; Dr. J. B. Pettigrew, Lond.; Messrs. Paté, Burke and Co., Lond.; Messrs. Peacock and Hadley, Lond.; Messrs. Parke, Davis, and Co., Lond.; Dr. Percy Pope, Lond.; Mr. W. Pelle, Lond.; Perplexed.
- R.**—Royal College of Physicians, Lond.; Rochdale Infirmary, Secretary of; R. J. B.; Royal Surrey County Hospital, Guildford; Mr. E. J. Reid, Lond.; Mr. E. W. S. Richmond, Lond.; Dr. T. H. Rookwell, Lond.
- S.**—Mr. S. Snell, Sheffield; Surgeons' Hall, Edinburgh, Treasurer of; Dr. D. Singer, Lond.; Mr. A. Marmaduke Shield, Lond.; Mr. W. Summerskill, Lond.; Mr. A. Stenhouse, Glasgow; Messrs. Street and Co., Lond.; Messrs. W. B. Saunders and Co., Lond.; Mr. W. Scott, Felling; Messrs. G. Street and Co., Lond.; Scholastic, Clerical, &c., Association, Lond.; S. H.; Stockton and Thornaby Hospital, Secretary of; Dr. J. Lindsay Steven, Glasgow; Dr. P. Blaikie Smith, San Remo.
- T.**—Dr. J. Thomson, Daventry; Mr. R. Tallerman, Lond.
- U.**—University Life Assurance Society, Lond.; University College Hospital, Lond.; Secretary of; United Breweries Co., Lond.
- V.**—Vinolia Co., Lond.; Mr. W. Van Praagh, Lond.; Victoria Carriage Works, Lond.
- W.**—Mr. S. Wand, Leicester; Messrs. J. Wright and Co., Bristol; Mr. C. J. Wallis, Lond.

Worcester County Asylum, Powick, Superintendent of; Dr. Hugh Walsham, Lond.; Western General Dispensary, Lond.; Hon. Secretary of; Wills, Ltd., Lond.; Dr. E. R. Weir, Glasgow; Dr.

Arthur Waddell, Potter's Bar; Professor A. E. Wright, Netley; West Ham Hospital, Secretary of; W. J. O. Y.—Yorkshire Herald Newspaper Co., York.

### Letters, each with enclosure, are also acknowledged from—

- A.**—Mr. Anderson, Lond.; A. B. S.; Messrs. Allen and Hanburys, Lond.; A. M. W.; Anderson's College Medical School, Glasgow; Ancoats' Hospital, Manchester; A. D. D.; Aberystwith Corporation, Borough Accountant of; Miss Akerigg, Lond.; Ashwood House, Kingswinford; A. E. K.; Apollinaris Co., Lond.; Aberdeen (9).
- B.**—Dr. D. F. Brown, Northampton; Mr. C. J. Bond, Leicester; Mr. H. Brice, jun., Exeter; Mr. C. W. Browne, Taung, South Africa; Mr. J. H. Bray, Hastings; Borough of Southwark, Borough Accountant of; B. T.; Messrs. J. H. Booty and Son, Lond.
- C.**—Mr. C. A. Crossley, Liverpool; C. A. R.; Dr. Cotton, Newmains; Messrs. Carter, Lond.; Cantab, Lond.; Mr. B. Cochrane, Ryde; Messrs. Cosenza and Co., Lond.; C. D. R.; Mr. G. P. P. Clapham, Wallasey; Dr. W. Craik, Thurnscoe.
- D.**—Mr. T. A. Dowse, Grimsby; Doctor, Strood.
- E.**—Mr. D. E. Edwards, Lliwynypia; Mr. H. T. Evans, Blackwood; East Anglian Sanatorium, Nayland, Matron of; E. H.
- F.**—Mr. E. L. P. Furniss, Hastings; Mr. E. J. Foulston, Liverpool; Folkestone Medical Society, Hon. Secretary of; Mr. W. Foreman, Fairfield; F. N. D. B.; Messrs. Fletcher, Fletcher, and Co., Lond.
- G.**—Mr. T. Gray, Pontypridd; Great Eastern Railway Co., Lond.; Secretary of; G. M. C.; Messrs. G. Gale and Sons, Birmingham; Glasgow Royal Infirmary, Cashier of; G. S. D.; G. A. C.
- H.**—Mr. T. Horsfall, Bedale; Messrs. Hooper and Co., Lond.; Mr. H. E. Haycock, Alfreton; Mr. D. Heron, Ballynahinch; Hulme Dispensary, Secretary of; H. E. G.; Humphreys, Ltd., Lond.; H. J. W.; Dr. W. J. Hirst, Barnsley.
- I.**—Ingham Infirmary, South Shields, Secretary of.
- J.**—Jeyes Sanitary Compounds Co., Lond.; J. H. M. M.; J. C. B.; J. C. G.; Dr. J.; J. S. L.; J. G.;
- Dr. C. E. Jennings, Beaconsfield; J. T.**
- K.**—Mr. W. Kirkby, Maesteg; Messrs. Knight and Co., Lond.; Dr. J. Knott, Dublin; Mr. A. C. King, Lond.
- L.**—Dr. G. D. Logan, Ecclefechan; Mr. J. Lacaye, Manchester; Liverpool Hospital for Consumption, Secretary of; Locum, Leicester.
- M.**—Dr. D. McCallam, Tarbolton; Manchester Medical Agency, Secretary of; Medicus, Headingley; Mr. J. D. Marshall, Lond.; Mr. H. H. Mason, Croydon; Dr. A. MacGregor, Clayton West; Messrs. Moore and Co., Lond.; Male Nurses' Temperance Co-operation, Lond.; M. E. L.; Mr. S. Mackey, Manchester; Mr. S. K. Mukerji, Rai Bareilly, India; M. H.
- N.**—Northern Medical Association, Glasgow; Nottingham Children's Hospital.
- O.**—Dr. W. Overend, Clacton-on-Sea; Mr. E. S. Ockenden, Hove.
- P.**—Mr. T. Pierce, Wexford; P. B.; Mr. S. V. Pearson, Manchester; Dr. W. H. Packer, Crossage; Mrs. Peel, Pembroke.
- R.**—Mr. W. L. Rhys, Aberdare; Dr. A. G. Richardson, Rhayader; Mr. H. A. Rivers, Lond.; R. J. S.; Lady Russell Reynolds, Lond.; R. H.; R. L. R.
- S.**—Dr. F. O. de Souza, Singapore; Dr. H. G. Stacey, Leeds; Mr. R. Sim, Wroxall; Dr. J. A. R. Smith, Morwell, Australia; Smith's Advertising Agency, Lond.; S. G. M.; Surgeon R. W. Stanistreet, R.N., Portsmouth.
- T.**—Mr. J. Thin, Edinburgh; T. G. B.; Mr. A. W. Tabuteau, Dunfanaghy.
- U.**—Upper Montague-street (7), Lond.
- V.**—Messrs. G. Van Abbott and Sons, Lond.
- W.**—Mr. C. Wace, Winchester; Dr. R. P. White, Standishgate; Messrs. H. Wilson and Son, Lond.; Mr. E. Welch, Accrington; Messrs. Woolley, Sons, and Co., Manchester; Mr. W. Warden, Lond.; Mr. R. W. Walden, Lond.

EVERY FRIDAY.

THE LANCET.

PRICE SEVENPENCE.

### SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six months	0 16 3	Six months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

### ADVERTISING.

Books and Publications	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6
Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.		
Terms for Position Pages and Serial Insertions on application.		

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice but is in itself an additional advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance. Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8 Rue Traversière Asnières, Paris

# The Bradshaw Lecture

ON

## PERSONAL EXPERIENCES IN THE SURGICAL TREATMENT OF CERTAIN DISEASES.

*Delivered at the Royal College of Surgeons of England on Dec. 11th, 1901,*

By T. R. JESSOP, F.R.C.S. ENG.,  
VICE-PRESIDENT OF THE COLLEGE.

MR. PRESIDENT AND GENTLEMEN,—Permit me, before commencing my address, to express to you, however inadequately, my deep sense, shared, I am sure, by everyone here present, of the enormous loss our profession and the entire community have sustained in the death of our late President, Sir William MacCormac. The whole world knows how, at the call of the Government, he faced the dangers of the South African battlefields in order to place his unrivalled experience at his country's service, at a time, too, when he might well have claimed his right to rest. Who can estimate the sum of consolation carried by this act of patriotism into the innumerable anxious homes throughout the length and breadth of the land? We alone who have been brought into close contact with him within these walls can appraise the value of his work on behalf of this College. No man has had its interests more at heart, none been more ready to place time and labour at its disposal. To us it is a consolation to know that he has died honoured alike by his Sovereign, his professional brethren, and the people.

The generous Founder of the Bradshaw Lecture exercised, I think, a wise discretion in permitting each individual lecturer to select his own subject, placing no further restriction upon him than that he shall not range beyond the realm of surgery. Such liberty of choice would seem admirably calculated to afford opportunities for the appointed lecturers to place before their colleagues matured opinions upon subjects in which they may have been specially interested or may perchance have obtained wide, if not exceptional, experience. Our late distinguished President, when asking me to undertake the task for this year, must chiefly, I feel sure, have intended to do honour to the large and well-reputed hospital with which I have for many years been connected, and yet, whilst fully recognising this, I desire to place on record my high appreciation of the compliment paid to myself. A hospital surgeon, engaged as I have been in active surgical work for a period of more than 30 years, cannot fail to have observed facts, to have made deductions, and to have formed opinions from which perchance some advantage may accrue to those who follow after. It is in the hope that my own experiences may prove helpful to others in however small a degree that I have determined to speak to you to-day upon some lessons which I have learned in the surgical treatment of certain organs. Within the limits of a single lecture it would of course be impossible adequately to deal with the surgical affections of even a single organ or region, and it is not my intention to make so vain an attempt. My desire is rather to illustrate from the records of my own practice some well-known surgical diseases and to indicate the methods of dealing with them which have commended themselves to my judgment.

I have hesitated somewhat in my desire to say something concerning the surgery of the kidney, our colleague, Mr. Morris, having recently published so complete and masterly a work on this subject as to leave little unsaid. On most questions, however, and especially on those of recent origin and development, there is room for personal experience, even if the outcome be no more than to confirm what has been observed by others; nay, more, it is only by the accumulated experience of many that such works as Morris's are rendered possible, and so it becomes a duty for each of us to make what addition we can to the common stock. I will not therefore apologise for offering my small contribution to so large a subject, but will claim that in so doing "I've done my duty and I've done no more."

My first essay in renal surgery dates back to the winter of 1869-70, and as it exhibits a combination of boldness with

timidity which not inaptly exemplifies the surgery of that date I will not hesitate to make confession of it. It was about this time that M. Dieulafoy had introduced to the profession his well-known "pneumatic aspirator," an instrument which early came into very general use, and by means of which surgeons were emboldened to evacuate and to examine the contents of cavities and swellings hitherto most frequently reserved for post-mortem examination alone. Few diagnoses, indeed, were considered complete which did not include the information to be obtained by means of this instrument. A dispensary patient, pale and emaciated from a long-standing pyuria, was brought under my notice in whose right loin could be plainly felt a large swelling, firm, fixed, and elastic. A diagnosis of abscess in the kidney was confirmed by an obvious diminution in the urinary sediment after several ounces of pus had been evacuated through the loin by means of the aspirator needle. The suppuration along the needle track which ensued led me to incise freely the loin and the subjacent kidney, the dilated calices of which were readily felt by the finger introduced through the incision. No foreign substance was felt nor was any diligent search made. The after-treatment consisted of the inevitable linseed poultice, and the results, I need hardly say, were pyæmia and death. In addition to the pyæmic foci of recent origin the necropsy revealed nothing more than a kidney converted into a thick-walled sacculated bag of pus in which was embedded a phosphatic coated uric acid calculus of considerable size. Of the early history of this patient I have neither note nor recollection. Probably it was less eventful than the extent of mischief would seem to imply. The result warned me off the kidney and increased the superstitious dread which I shared with the profession at large of meddling with so vital an organ. These, too, were the pre-antiseptic days, for although Lister had been labouring hard for some years to secure the acceptance of his doctrines respecting the origin, causation, and prevention of surgical inflammation, it was not until about the year 1870 that he obtained anything like a general adhesion to his teaching; and it is not too much to say that had it not been for Lister's discoveries there would in all probability have been even now but little advance in renal surgery upon the sample I have just related. It was not, indeed, until late in the "seventies" that surgeons made any serious attempt to bring the kidney within the range of their treatment. Mr. Morris tells us that he was the first to undertake a nephro-lithotomy and his operation took place in February, 1880. Simon of Heidelberg is credited with having been the first intentionally to perform a planned nephrectomy in 1869; and in these early days Dr. Meadows and Mr. Durham in this country and others abroad have reported cases in which the operation was either completely or incompletely performed, albeit on a mistaken diagnosis.

In June, 1877, I undertook my first nephrectomy upon a child, aged two years and three months, who for several months had been passing bloody urine and whose condition was one of pallor with some wasting. In the left loin an increasing mass of considerable size, easily defined and possessing some slight degree of mobility, had been under observation during several weeks. The operation consisted of an incision in the loin commencing a finger's breadth from the vertebral spine and carried midway between the costal margin and the iliac crest to an extent sufficient to allow of the insertion of the fingers and thumb. On careful division of the muscles the capsulated tumour was exposed and its separation from surrounding tissues, together with that of the kidney from which it sprang, was easily effected. The whole of the pedicle, containing ureter and blood-vessels, was secured in a double ligature of hemp and the mass, severed from its pedicle by scissors, was removed. The growth, which involved a considerable portion of the renal structure, is described in the notes as "encephaloid." The immediate recovery of the child was complete and satisfactory, but the respite was not of long duration, inasmuch as during the ensuing autumn the child died with unequivocal signs of a return of the disease beneath the site of the operation. Owing to my absence from home the body was not examined. These details may be of some interest from the fact that this was, so far as I am aware, the first nephrectomy undertaken of set purpose in this country, and for the additional reason that the general outlines of the case as here given do not differ materially from those found in a large majority of the cases of sarcoma of the kidney in young children, of which this was probably an example. Eight similar cases have

come under my own observation in which, with variations only in age—the youngest being 13 months and the eldest five and a half years—in the size and the duration of the tumour and in the general condition of the patient the description I have given would apply equally. Nor have I in the later cases materially altered the mode of operation. The incision has been made somewhat nearer the last rib and has been lengthened when necessitated by the size of the tumour; silk ligatures have been substituted for the hemp, and greater care has been exercised in establishing and maintaining complete asepticity of the wound. One little patient died under operation from loss of blood and shock; the rest recovered from the effects of the operation.

Walsham in Morris's treatise on Anatomy points out the danger when performing nephrectomy on the right side of including within the ligature a portion of the vena cava. Once this actually occurred in my hands and on another occasion my previous experience alone enabled me to avoid a like catastrophe. The first of the two cases was that of a female, aged two years and 10 months, sent to me in June, 1883, in whose abdomen her father accidentally discovered a swelling at a time when the child was believed to be quite well. No deviation from health and not a symptom of any kind had been observed. Once attention had been drawn to the swelling it was closely watched and it soon became evident that a rapid increase was taking place. When brought under my notice the right half of the abdomen was occupied by a smooth, firm mass, equal in size to a foetal head at birth, which moved visibly during respiration and admitted of a considerable amount of lateral displacement (and I may remark parenthetically here that unusual mobility due to, or at least attended with, an elongated pedicle was a marked feature in both cases). In accordance with my practice at that time—a practice which I have long since abandoned as an aid to the diagnosis of any abdominal tumour—an aspirator needle was introduced with the result that the withdrawal of a minute quantity of blood only determined the solid character of the growth. It was then decided to remove it and the operation was performed at the patient's home. Owing to the entire absence of symptoms, the extreme mobility of the mass, and our inability to attach it to any organ no diagnosis was arrived at. An incision was made through the linea alba in mid-abdomen and the tumour with cæcum and ascending colon pushed across to the left of the vertebral column exposed. On inspection it was seen to consist of a growth springing from the kidney and tethered by a broad pedicle, containing the renal vessels and the ureter, to the loin so loosely as to allow a free range of movement. Through an incision made in the external layer of the meso-colon the peritoneum was stripped and the mass was delivered with more readiness than was expected owing to the length of the pedicle. This was transfixed and tied with a double silk ligature. The kidney and tumour, weighing together three pounds and two ounces, were detached by means of scissors. The peritoneal incision was sutured and the cavity drained by a rubber tube passed through the loin. The operation lasted one and a quarter hours. Five hours after its completion the temperature was found to be 101° F. and the pulse was of good volume. The child was cheerful and chatted freely with her nurses. Two hours later—viz., seven hours after the operation—the patient died with absolute suddenness. A subsequent examination of the growth—there was no post-mortem examination—threw some light on the cause of death, seeing that in the portion of the pedicle removed it was found that the enlarged renal vein abruptly widened out so enormously where ligatured as to suggest that the vena cava had been dragged by the weight of the mass of disease so as to project well within the root of the kidney. (Fig. 1.)

In removing the kidney for malignant disease the surgeon, naturally anxious to avoid leaving a portion of the disease behind, secures the vessels at as great a distance as possible from the kidney. In avoiding this danger it is well to bear in mind another, that, viz., of including within the grip of the ligature a portion of the wall of the vena cava, and so incurring the risk of the formation of a thrombus, which at any moment may be washed into the right heart and give rise to sudden death.

The second case was that of a child, two years old, admitted into the Leeds Infirmary in October, 1888, in whom the right kidney was the seat of a cystic sarcoma forming a large tumour which filled the right half of the abdomen and extended beyond the mid-line. This, like the former,

admitted of a considerable range of lateral movement, but, unlike it, was not visibly affected by respiration. It was removed by the abdominal route, the incision being made to follow the course of the outer right linea semilunaris. After incising the peritoneal covering and stripping the mass from its surroundings it was found, as in the former case, that owing to the length of its pedicle it could readily be withdrawn from the abdominal cavity; and on closely examining the pedicle there was no difficulty in demonstrating the vena cava as one of its constituents; it occupied, indeed, so much of the meso-nephron as to necessitate special care in the selection of the spot at which to place the ligature. The

FIG. 1.

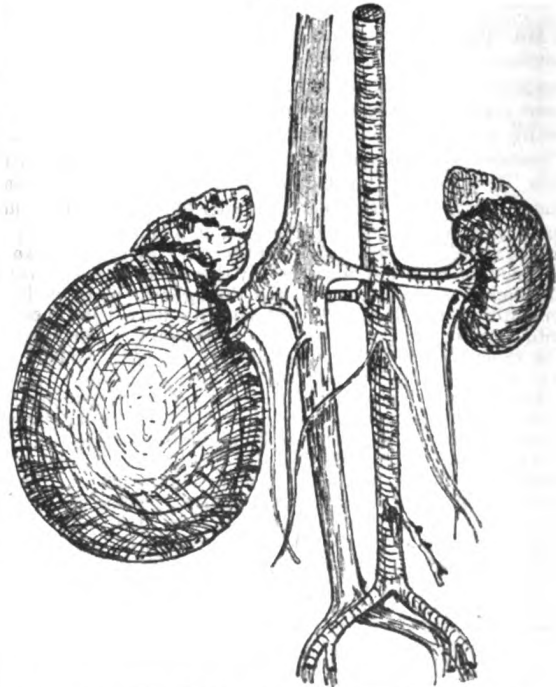


Diagram illustrating the effects of a large tumour of the right kidney producing great dilatation of the renal vein and lateral displacement of the vena cava.

visceral peritoneum was closed by a continuous suture except at its lower end, where it was attached to the inferior extremity of the abdominal wound for drainage purposes. The patient recovered and was sent home in December; but in the February following the medical attendant wrote to say that the child died on the 7th of that month.

It will thus be seen that of the 11 cases of nephrectomy for tumour in young children nine were operated on by the lumbar method and two only by the abdominal. In deciding which of the two methods to adopt I have been guided chiefly by the size of the tumour and in some measure by its mobility. Hitherto there has been, rightly or wrongly, a general consensus of opinion in favour of the lumbar route whenever applicable, and it is applicable in all or nearly all in which the tumour can be brought whole through the lumbar incision. In the two removed by the transperitoneal operation the mass was of relatively enormous size, and in both there was a degree of mobility sufficient to suggest an elongated and narrow pedicle. Of the 11, one, a pallid and wasted child, 13 months old, died before the completion of the operation, and another lived only seven hours, death being sudden and probably due to cardiac thrombus arising from an injury to the vena cava. Nine recovered from the operation, but the longest survivor lived only two years and five months, whilst one was reported to have died at the end of nine weeks. In how many deaths resulted from recurrence of the disease I have no means of knowing. Three times only had I the opportunity of seeing the child when nearing the end, and in each of these were undoubted evidences of recurrence. In two others the medical men in charge reported the presence of abdominal tumour.

My results are neither better nor worse than those reported

by other surgeons. It is several years since I last undertook a nephrectomy in a young child, and unless future experience gives better ultimate results than I have hitherto met with the want of confidence I already feel in recommending the operation in children suffering from malignant growths cannot but be emphasised.

In dealing with a mortal disease an immediate mortality of a little over 18 per cent. seems encouraging enough, but when it is borne in mind that the longest survivor of 11 died within two and a half years the question forces itself upon our consideration whether it is worth while to incur the undoubted immediate risk of the operation and the anxiety to parents and friends for the possibility of so small a gain. Bear in mind it is of young children I am speaking, in whom an addition of a few months or of even a year or two of life is not comparable with a similar addition to the lives of adults. It is even doubtful if in these 11 children there was any actual increase in the aggregate length of life obtained. This raises a grave question, one which cannot, of course, be determined upon the experiences of a few. It is, indeed, too early yet to express an authoritative opinion upon the point seeing that it is only within very recent years that nephrectomy has been undertaken by the general surgeon, and the collected data, although considerable, are insufficient for the purpose. In not one of my cases was an early diagnosis arrived at and in all the disease had consequently made considerable advance before the operations were undertaken. The absence of prominent symptoms has doubtless militated against early removal in some, whilst in none probably has the surgeon deemed it right to open loin or abdomen until such time as he has been satisfied of the presence of a substantial growth. Considering with what little risk an intra-peritoneal inspection of the kidneys may be undertaken if on the earliest suspicion of a growth an examination by inspection and palpation of the organs be made it may be possible to detect the presence of sarcoma or other growth at a much earlier date than has hitherto been accomplished and so, it may be assumed, to lessen the probabilities of return. Bearing in mind, however, that the only prominent signs of the disease in young children are the presence of a tumour in one or other loin and the occurrence of hæmaturia, that whilst the latter is by no means constant the former, even though it be of foetal origin, has usually attained a considerable degree of development before its existence is suspected, the probability of very early diagnosis seems somewhat remote; and yet by early detection and prompt removal alone can we hope to improve upon our hitherto unsatisfactory results. In estimating the value of this operation it is not sufficient for the statistician to tabulate his cases under the two heads "cured" and "died"; we must be informed as to the duration of life in those reported "cured," or indeed statistics will only mislead.

Much more encouraging are the results obtained after nephrectomy in adults, partly because in the majority of cases the operation is performed for conditions other than those of malignancy, and in part it may be because of the lesser degree of malignancy usually met with in the renal tumours of the adult and of their consequent diminished liability to diffusion and speedy return. I have operated on 16 adults, of whom six had tumour, three calculous pyelitis, four tuberculous or other form of non-calculous pyelitis, two fistula following nephro-lithotomy, and one uncontrollable hæmorrhage after nephro-lithotomy. Of the six cases of tumour two recovered, two died within a few hours from shock, one died on the third day after operation with symptoms of intestinal obstruction which were not relieved by enterostomy, and one lingered nine days, gradually sinking from exhaustion. The first of the two patients who recovered after nephrectomy for tumour was a man, aged 56 years, whose chief symptoms were frequent hæmaturia, a dull aching in the left loin which was completely filled by a large growth, and increasing pallor with loss of strength. The substance was removed by the lumbar operation and it was found to consist of an upper third of normal renal tissue and a lower two-thirds of new growth which was reported to be malignant adenoma. The second case was that of a woman, aged 36 years, in whom a diagnosis was arrived at only during the progress of the operation. She was very stout and her abdomen especially was fat and large. After her third confinement nine months before she came under observation she discovered a globular substance in her left abdomen, which, however, gave rise to no inconvenience. It increased in size and in June, 1900, it was

described as being round and of the size of an average cocoa-nut. It lay in the left iliac fossa, was firm, and it had a free range of movement. It could be made to lie on the lumbar vertebrae, could be pushed upwards into the loin, leaving the iliac fossa empty, and it could be brought downwards just within touch of the fingers in the vagina at the brim of the pelvis. No attachment to the uterus could be made out. The functions were in no way interfered with and the patient's general health was good. On opening the abdomen in the middle line and exposing the tumour it was seen to spring from the left kidney. Pushing the intestine to the right it occupied the whole of the space between the twelfth rib and the iliac fossa, and was composed of the upper half of the normal kidney resting upon a capsulated growth which included the pelvis and the rest of the kidney. The upper portion of the kidney not directly involved in the growth had a remarkably elongated appearance, as if it had been stretched by the weight of the tumour, and by its means the range of movement was greatly increased. Its peritoneal covering having been incised and stripped off the pedicle was secured and the whole removed. Drainage was effected through the loin and the peritoneal wound was closed by suture. The tumour was composed of a mass of cysts inclosed in a thick capsule and contained no malignant element.

The four patients who died presented large tumours and in all the transperitoneal method was the operation selected. Two males, aged respectively 53 and 61 years, and one female, aged 34 years, were the subjects of disease in the left kidney pronounced to be sarcoma. The fourth was a male, aged 56 years, with carcinoma of the right kidney and adrenal extensively adherent to the under surface of the liver. Of the 10 adults in whom nephrectomy was performed for conditions other than that of tumour two died and eight recovered. One of the fatal cases was that of a young man from the substance of whose kidney I had removed a calculus by an incision made directly over the stone through the substance of the kidney tissues. Very free bleeding at the time of operation was temporarily arrested by pressure and it was not until after several recurrences of the hæmorrhage during the next three days that it was decided to remove the kidney. At the operation the wound was believed to be in a septic condition, infected probably by the suppurating pelvis of the kidney. In spite of much care and pains taken to cleanse the wound the patient died from septic peritonitis. The other fatal case was that of a delicate woman, aged 30 years, from whom I had a few months before removed four small calculi found loose in the pelvis of the kidney, which was also largely distended with pus. It had become evident that the patient must sink. The lumbar nephrotomy wound continued to discharge pus mixed with some urine in large and undiminishing quantity, the condition of the patient was deteriorating, and the temperature pointed to a general septicæmia. In the hope of being able to arrest this down-grade the kidney was removed through the loin. The patient only survived the operation 58 hours, and during that time no more than eight ounces of urine were secreted. Of the eight who recovered three were the subjects of calculous pyelitis and had previously undergone the operation of nephro-lithotomy; four were for tuberculous or other form of non-calculous pyelitis, and, like the former, had previously undergone nephrotomy; and one was for urinary fistula following nephro-lithotomy. In each the lumbar operation was selected.

It will thus be seen that of the five transperitoneal operations four died, whilst of the 11 lumbar nephrectomies two died, showing a difference as between 80 and 18 per cent.; whilst if the whole 16 be classed together, with six deaths, the mortality is 37½ per cent. This places the transperitoneal operation in a very unfavourable light. But in estimating the relative dangers of the two operations the nature and extent of the disease, as well as the character of the operation itself, must be taken into account. The lumbar route being inapplicable to the largest tumours—and the larger the tumour, other things being equal, the more dangerous its removal—it follows that some of the least promising are transferred to, and made to swell the mortality of the abdominal operation. So, again, the age of the patient must influence the death-rate. Of the four who died one was over 60 and two between 50 and 60 years of age. A mortality of 37½ per cent. cannot be accepted as at all satisfactory, and increased experience leading, as doubtless it will, to improvements in the technique of the operation and the avoidance of many pitfalls may be

confidently reckoned upon for the securing of better results. How far, for instance, with improved methods of combating or averting shock we may be able to lessen the mortality the future will decide. At the time when the four transperitoneal operations for tumour were undertaken we were not in the habit of injecting strychnine hypodermically or of introducing saline solutions within the veins, two powerful agents without which no surgeon would at the present day consider himself sufficiently armed when undertaking operations of such magnitude or involving such prolonged anaesthesia. The two patients at least who died within a few hours of the operation I cannot but think would have had a better chance of recovery had we been able to make use of the means for averting shock with which we are now familiar.

In weighing the advantages and disadvantages of the two operations with a view to selection in a given case it must be noted that in the anterior method the peritoneum is twice incised, whilst in the posterior that membrane is not necessarily wounded at all. This is a matter of very considerable importance, more especially if the organ to be removed is in a septic condition, as is the case in all suppurative diseases. Speaking generally, the lumbar route is to be selected in preference to the anterior whenever the kidney is known to be undergoing septic inflammation, as also in those cases of neoplasm which present no such difficulties as are due to mobility or to extreme size; for whilst the danger of soiling the peritoneum during the extraction of a septic organ through an anterior opening is a very real one, and would lead to a preference for the posterior route, the difficulty of removing a very large growth through the limited space between the costal margin and the iliac crest or of enucleating a kidney having a free range of movement within the abdomen would suggest the desirability of attacking it from the front. The transperitoneal method possesses further advantages, such as enabling the operator to examine the opposite kidney as well as the other abdominal organs, in any of which might be found secondary growths or other conditions sufficient to negative the completion of the operation; and again the readiness with which the renal vessels may be secured in such manner as to render the operation a comparatively bloodless one.

On reviewing my own work apart altogether from results, for indeed the number of cases is not sufficiently large for statistical purposes, I incline to the opinion that the lumbar operation will continue to be preferred for those cases in which sepsis is known or is assumed to exist and for those neoplasms in which the growth is of recent origin and of small or moderate size; whilst the larger renal tumours will be attacked from the front with more prospect of success in proportion to our increased knowledge of, and attention to, details in the operation itself and to our ability to avert death from shock. I have said that nephrectomy in the adult gives more encouraging results than is obtained in children. This declaration must be qualified in that it applies not to the immediate but only to the ultimate result. It will have been seen that of the 11 children nine recovered from the immediate effects of the operation, showing a mortality of 18 per cent., whilst of the 16 adults six died whilst under treatment, giving a mortality of 37½ per cent.; but on inquiring into the future history of these 10 adults whose operations were successfully accomplished we find a much more favourable record than in the cases of the children, the longest survivor of whom you will remember died within two and a half years. Of the 10 adults who recovered one, aged 55 years, the subject of "malignant adenoma," attended with persistent and profuse hæmorrhage, whose kidney was removed by the lumbar method in 1888, survived nine years without any sign of return of the disease, the cause of death being certified "cardiac dropsy." This man during several years after the operation continued to work as a compositor in a newspaper office, and on several occasions he assured me that his health was in no way impaired. Another of the successful series was that of the woman, aged 36 years, whose left kidney with tumour attached was removed by the anterior operation in June, 1900. The growth in her case was reported on as one of cystic degeneration devoid of malignant elements, and she is now in good health. Of the remaining eight successful nephrectomies—all of which, undertaken for conditions other than that of neoplasm, were performed by the lumbar method—three are known to be still alive and well, and their respective operations bear the dates 1883, 1890, and 1891. One was reported to be in good health 15 months after the

operation, one migrated to Australia "about three years after his kidney was removed," and of three I have failed to find any trace. Such results as these, if we take into consideration the hopeless condition in which most of the patients were placed at the time their operations were undertaken, imperfect though they are, cannot fail to encourage us in persevering with a radical treatment which, if essentially fraught with risk, may yet admit of such improvements as will lead to greater and more certain success in the future.

In furtherance of my intention to place before you some examples taken from my own personal experience in renal surgery, and altogether repudiating any pretensions to originality or claim to address you *ex cathedra*. I will now pass on to a brief consideration of nephro-lithotomy—an operation which I confess not to have held in the highest estimation until within the last five or six years, owing, as I now realise, to the non-recognition of essential anatomical considerations. In October, 1882, I attempted to sound a kidney for stone by means of a long fine needle passed through the loin, and whilst the instrument was being manipulated it snapped, leaving five inches buried in the tissues. This *contretemps* compelled me to incise the loin, and owing to the difficulty I experienced in finding the needle, which, however, was eventually recovered, the kidney was exposed and I was thus enabled to make a more thorough exploration by means of the needle passed in many directions and to varying depths. The result was negative as regards the discovery of a calculus, but from that time the renal pain disappeared, and thus a cure, which at that date and for many years after seemed inexplicable, was accidentally brought about. Not until 1886 did I succeed in locating and removing a calculus, although I had in the meantime made unsuccessful attempts on four patients to discover a suspected calculus by means of manipulation and needle puncture of the kidney exposed at the bottom of a lumbar incision. Fortunately, no harm was done to any of the four. The patient from the pelvis of whose kidney I succeeded for the first time in removing a calculus had a narrow escape from death by hæmorrhage, owing, doubtless, to the position and direction of the incision which was made on the anterior aspect of the kidney immediately beyond the pelvis parallel with the long axis. The stone was branched, it weighed a little over two drachms, and was so embedded in the kidney structure as to cause some amount of tearing in its extraction. Hæmorrhage, very free at the time from the wound, was eventually arrested by sponge pressure, and as on removal of the sponge a few hours later the hæmorrhage had apparently ceased, whilst there was no indication of an escape of urine, the external wound was closed. Next day, as he had not voided urine and the bladder was found to be moderately distended, a catheter was passed and some deeply-stained urine drawn off without materially lessening the distension. Upon this a suction syringe was improvised, and by its means a large amount of coagulated blood was extracted. As upon examination the lumbar wound was found to be in a wholly satisfactory state further interference seemed uncalled for. During several days the pumping operation had to be repeated, but eventually the bleeding ceased and his recovery progressed slowly to its completion. In 1888 there occurred the unfortunate case I have previously mentioned, in which, after an incision similar to the one just described, repeated external hæmorrhage extending over several days decided me to remove the kidney with the result that the patient died from septic infection. It thus became manifest that hæmorrhage constituted a formidable danger in the removal of calculi impacted in the kidney substance.

Amongst my early cases, again, were two in which stones were readily discovered by palpating the pelvis, and were almost as readily removed through direct incisions in the pelvic wall without implicating the kidney tissue proper. In one of the two I made an attempt to suture the wound, but in both the whole of the urine continued to flow through the drainage-tube and permanent fistulae became established. Relief from the intolerable nuisance produced by the leakage was at length obtained by removal of the organ. For a time my hope for the future of nephro-lithotomy fell to a low ebb, and I almost despaired of seeing it established as a useful operation. Interest, however, was revived in May, 1888, by a successful issue in the following case. A farmer, aged 52 years, came under my care in the infirmary complaining of loss of strength and of his urine being "milky." He was

stout and sallow-faced, of aged appearance, and flabby-limbed. His complaints were exceeding few. His urine contained one-fourth pus, and the left half of his abdomen was occupied by a smooth definitely outlined elastic tumour. He had never known pain, had worked up to the time of his admission, and had only noticed the change in his urine for a few weeks. He was not an observant man, and his previous history was almost a complete blank. On a diagnosis of pyonephrosis I cut down upon the left kidney, and on incising it 26 ounces of pus were collected. A digital exploration of the thin-walled sac into which the kidney had been converted revealed the presence of an unusually large stone, which after extraction by means of large lithotomy forceps was found to weigh 11 ounces 160 grains (Fig. 2). It was firmly adherent and had to be peeled off, so

FIG. 2.



Renal calculus (rather more than half-size) weighing 11 ounces 160 grains.

intimate was its connexion with the pelvic wall. The kidney was a mere shell and had ceased to perform its function, for at no time was there any discharge of urine from the drained wound. During the first few weeks pus flowed freely though in diminishing quantity, and in little more than four months the wound was closed. About five years after the operation, having meanwhile enjoyed good health, he died with symptoms, so I was informed, of intestinal obstruction. In view of the enormous size of the stone and of the very extensive character of the disease in this case the entire absence of pain from commencement to end forms a very remarkable feature which serves, however, to emphasise the fact, verified again and again in my own practice, that the amount of suffering in nephro-lithiasis bears for the most part an inverse relation to the size of the stone. A small mobile calculus lying loose in the pelvis, partially blocking now and again the orifice of the ureter, gives rise to greater and more frequent pain than does a larger one fixed in a calyx or imbedded in the kidney substance. This, by far the largest specimen I have myself removed, was unattended with pain at any period of its formation or growth, whereas the patient who within my recollection suffered most, and most frequently, requiring daily administration of morphia for a period of from three to four months, eventually passed a small lithic acid calculus per urethram to her complete and permanent relief. It is worth mentioning in this connexion that the stone was passed during the night following my first examination of the patient, which included a free manipulation of the loin, and resulted in arrangements being made for a nephro-lithotomy on the following morning—arrangements which were, of course, indefinitely postponed. How far it may be claimed

that the stone received a determining impulse on its outward passage from the hands of the manipulator I am unable to assert, but that such an explanation is not wholly chimerical receives some support from the following two cases.

I was asked by the directors of a railway company to examine on their behalf a man who was seeking compensation for damages received in a collision. The injuries were severe and indicated considerable violence. Amongst the details of the accident it was stated that he was thrown upon the floor of the compartment where he received several blows upon his back from other passengers falling in a confused heap upon him. After having been conveyed home his sufferings were so severe that, pending the arrival of a medical man, his wife had him placed in a hot bath. Whilst lying there micturition became imperative and frequent, the urine being decidedly blood-stained, and at length he emitted a lithic calculus of the size and shape of a barleycorn. The other case was that of a young man suffering from well-marked renal colic, in whose kidney I failed to detect a stone by careful manipulation and needle puncture. The search was abandoned and the wound was closed. Early next day he was found to be suffering from retention of urine, due to the impaction of a calculus in the membranous urethra, plainly felt in the perineum. It was removed through a median incision and the retention was speedily relieved. In the one case the escape of the calculus so shortly after the patient had been violently shaken and severely pounded, amply suggests cause and effect, whilst in the other case there is little room for doubt that the search by palpation of the kidney and its pelvis directly resulted in the escape of the stone and its forced entrance into the ureter. The possibility, therefore, of a stone becoming detached and released should not be lost sight of lest an additional danger be introduced necessitating a further operation for the recovery of the stone, the presence of which in the ureter or elsewhere has become a matter of certainty.

To return, after this diversion, to the early misgivings I entertained in regard to the future of the operation of nephro-lithotomy, misgivings which were in no degree lessened by the satisfactory result following the removal of this exceptionally large stone. Up to the year 1896 I had operated on 19 patients whose symptoms had led me to diagnose stone in the kidney, exclusive of two in whom unsuspected stones were met with, that, viz., in whose attenuated kidney the large calculus was found, and another who presented similar symptoms of pyonephrosis only and in the pelvis of whose kidney, besides a quantity of pus, two calculi were discovered. In none of the 19 operations was the kidney withdrawn from its normal situation; it had not, indeed, occurred to me that such a procedure was feasible. The plan adopted had hitherto been to expose the kidney by incision through the loin, to strip it anteriorly and posteriorly of its investing fat, to palpate the whole organ, including its pelvis and the upper portion of the ureter, to needle-puncture in every direction those cases in which simple palpation gave negative results, and, finally, to cut directly upon the stone wherever one was discovered, whether in the substance of the kidney, in the pelvis, or in the upper reaches of the ureter. In five cases no stone was then or thereafter found; in one a displaced stone was subsequently extracted through an incision made in the perineal urethra; in two severe hæmorrhage—leading to a fatal nephrectomy in one—followed the incision made directly over the stone through the kidney substance; in two nephrectomy was resorted to for relief from permanent urinary fistula; and in nine recovery was uncomplicated and complete.

About the year 1896, in a conversation with him respecting a patient suffering from advanced tuberculous disease of both kidneys, Mr. Henry Morris stated that he was in the habit of withdrawing the kidney from its bed so as fully to expose it outside the lumbar wound, of splitting the organ into two symmetrical halves by an incision carried from its convex border through to the pelvis with the object of curetting and otherwise treating masses of tubercle, and of returning the kidney to its natural position after having passed three or four catgut sutures deeply through the substance of the organ which he tied with just the amount of force needed to arrest the bleeding. Since that time I have adopted a similar procedure in the removal of stones from the kidney in five cases with most satisfactory results. In none has there been any difficulty in controlling the hæmorrhage; in

all the wounds healed directly and there has been no urinary fistula to complicate the results. Should the future confirm these experiences nephro-lithotomy will have been deprived of two of its chief dangers—those, viz., of severe hæmorrhage at the time of operation and afterwards and of that most troublesome and distressing condition, a leakage of urine through the loin, in addition to which there are the manifest advantages during the operation of a complete inspection of the kidney and its pelvis and the consequent diminished likelihood of overlooking a stone, together with a greatly increased facility of examining the ureter from end to end by means of a probe in case of suspicion that a stone has escaped during the earlier steps of the operation.

To account for the abundant hæmorrhage attendant on an incision through the anterior or the posterior surfaces of the kidney as compared with one made through its centre, splitting it into two symmetrical halves, it is needful only to bear in mind the arrangement and mode of distribution of the renal vessels when once they have entered the organ and the very liberal supply of blood which they receive. The radiating interpyramidal arteries and veins intercommunicating by arches across the pyramidal bases, from which numerous vessels carry the blood to and from the cortex, constitute a plexus which if anywhere cut across pours out blood as freely almost as if the renal vessels themselves were wounded. The further we proceed, on the other hand, from the primary branches of the renal artery into the substance and towards the periphery of the cortex, the smaller the vessels become and the more easily is the bleeding controlled, and thus it follows that an incision carried from the outer border of the kidney straight through its centre to the pelvis, involving fewer of the primary branches, is attended with less hæmorrhage, and that of a kind more easily arrested, than if the incision is made transversely across the organ. So also as regards the formation of urinary fistulæ, incisions made through the comparatively thin walls of the ureter or pelvis, more especially if these be diseased owing to the presence of a stone, are less likely to result in primary union than are the extensive, even, and vascular surfaces of the two halves of the kidney when accurately approximated by deeply placed sutures. It has not, moreover, in every case been necessary to split the entire kidney, but I have not hesitated to do this where such a course has been called for, and in all the incision has been commenced at the convex border and carried down to the pelvis, or so far as has been needed to expose the stone.

In withdrawing the kidney so as to inspect it outside the loin the danger of tearing the pelvis or even of detaching the ureter must not be lost sight of. The former accident actually occurred in my hands, and although by carefully suturing the wound a fistula was avoided, the risk of establishing a permanent leakage is greater when the pelvis is torn than in the case of an incision made for the purpose of extraction, and we have seen that in two cases—in neither of which, it is true, was any attempt made to suture the edges of the incision—this untoward result was brought about. The pelvis which has been long occupied by a stone and has thereby become attenuated, and more especially if the seat of a pyonephrosis, will be likely to give way more readily to the stretching than one in a state of health, and the wound in it will, moreover, be less likely to close no matter how carefully sutured. Bearing these possibilities in mind, the withdrawal and exposure of the kidney followed by the operation of splitting, muffin-like, is calculated, I feel sure, not only to facilitate the removal of stones from the interior of the kidney, but to render the operation safer and more effective.

In no single branch of surgery have more important changes and improvements been made during recent years than in the method of dealing with stone in the bladder. Within the recollection of every middle-aged surgeon a complete revolution, indeed, has been witnessed, and it may be considered not altogether inappropriate if, after having indicated the method of dealing with calculus in the kidney which in my hands has given the best results, I conclude by making a few observations upon the present and former procedures made use of for the removal of stones from the bladder. Only a little while ago the choice lay between perineal lithotomy and lithotripsy as practised by Civiale. It is doubtful if at the present day half-a-dozen hospital surgeons could be found in this country who are in the habit of performing either operation. During several generations lateral lithotomy stood at the head of the list of the surgeon's performances, and few of the elders amongst us can fail

to feel a pang of regret on looking back to the days when students and other onlookers anxiously watched whilst the surgeon with more or less precision and rapidly relieved his patient of the stone. Lateral lithotomy was the accepted test of the surgeon's claim to pre-eminence as an operator, and few, I imagine, ever experienced an entire absence of nervousness when about to undertake its performance. The oldest, most experienced, and most successful lithotomist of my acquaintance published a confession that he invariably suffered from a feeling of nervousness when about to undertake the removal of a stone, and as on no other occasion was he the subject of fears or qualms he termed it his "lithotomy feeling." There was good excuse for this. So many pitfalls surround the operation as to make it a matter of relief when it is safely completed; so many excellent operators have failed once at least in bringing about a successful issue. The traditions of almost every large hospital contain at least one example of failure. I have myself seen one of the ablest surgeons of his day remove a stone of considerable size by this operation from an adult in whom, post mortem, it was found that neither urethra, nor prostate, nor rectum had been wounded, a result which elicited from an enthusiastic admirer the remark that the operator was probably the only surgeon in England who was capable of performing such a feat. Notwithstanding the difficulties and dangers attendant upon the operation itself, the occasional occurrence of unpleasant sequelæ, and the mortality, amounting in the best hands to one in eight, and in spite of the many attempts at modification—bilateral incision, median incision, the use of a curved, of a straight, or of a rectangular staff—lateral lithotomy maintained its position at the head of cutting operations for stone until within 20 years of the present time.

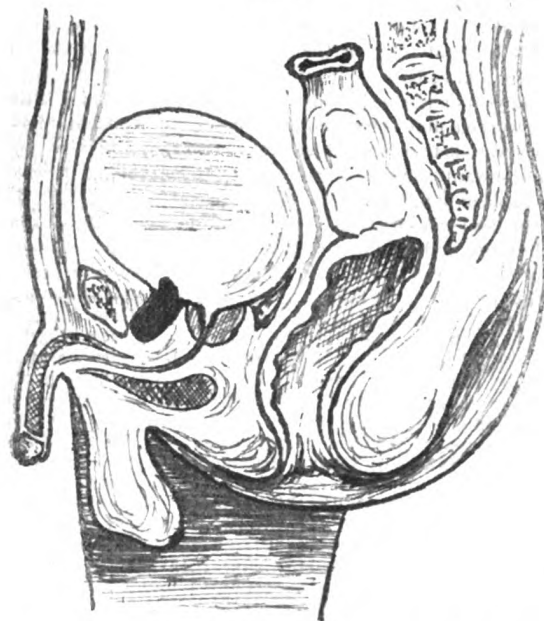
Lithotripsy, in the hands of a few skilful manipulators, from the time of its introduction, about the middle of the first half of last century, gradually increased in favour as the instruments for crushing and evacuation were improved, but it cannot be said at any time to have rivalled the cutting operation, being for the most part reserved for those comparatively few favourable cases in which the stone was small and the organs were generally healthy. It was not until the gradual development of lithotripsy into the more complete litholapaxy at the hands of Bigelow, nearly a quarter of a century ago, and the almost simultaneous revival of suprapubic lithotomy, that the doom of lithotripsy and of lateral lithotomy was sealed.

The manifest advantages and the vastly increased safety secured by removing at a single sitting the crushed fragments of a stone, whether small or of a considerable size, the precision and certainty with which the bladder was opened, digitally explored and even inspected through an anterior incision, were not long in obtaining for the two new operations an established position, and at the present time I shall not be far wrong in saying that with very few exceptions litholapaxy or suprapubic lithotomy is chosen in every case of vesical calculus whether in male or female, in child or adult; and litholapaxy claims first consideration. There must be some good reason for deciding upon lithotomy in preference to litholapaxy now that the latter operation in skilled hands and in well-selected cases is attended with so little danger and incurs so brief a period of disability. The mortality, no doubt, after either method of extracting a stone depends less upon the nature of the operation itself than upon the presence or absence of complications. Apart from the general health and strength and age of the patient, the size and composition of the stone, the capacity of the urethra, the presence or absence of prostatic enlargement and of inflammatory disease in bladder or kidneys, must materially influence the results. In a perfectly uncomplicated case, one in which a successful issue may be expected from either operation, litholapaxy would naturally be chosen as involving less mutilation and a less prolonged period of convalescence. Some complications there are which, apart from other considerations, entirely negative the less serious procedure; such, for instance, is the presence of an advanced stricture in any part of the urethra beyond the meatus, with which I may class an abnormally narrow urethra, one which admits only an instrument altogether disproportionate to the size of the stone. I have met with one instance in a generally ill-developed man of middle age whose urethra, though showing no signs of disease past or present, would not, even after the slitting of the meatus, admit the smallest sized lithotrite I possessed. The presence of advanced prostatic disease may be, I think,

rightly held to exclude litholapaxy, not so much on account of the obstruction it presents to the free use of the lithotrite and evacuator, or on account of its liability to injury, but chiefly because by adopting the suprapubic operation an opportunity is afforded for dealing radically with the prostate as well as for removing the stone.

There are calculi too large to be crushed, and a few—I have met with two such—so hard as to resist the most strenuous efforts to break them. The presence of cystitis, if of long standing, must be held, certainly if the stone be of more than moderate size, to contra-indicate the crushing of the stone, seeing that a prolonged operation involving more or less injury to the bladder would incur the risk of converting a mild into an acute and relatively dangerous state of inflammation; and finally, in the case of an encysted calculus, litholapaxy may be considered to be wholly inapplicable, not only because of the difficulty, for the most part insuperable, of releasing the stone from its pouch and of effectually breaking it into fragments which shall be accessible to the aspirator, but also because of the intense cystitis which, so far as my observation extends, is a marked feature in cases of encysted calculus. In these the superiority of suprapubic lithotomy over any other form of operation is abundantly manifest, and seeing that I have met with three such cases, whilst the total number successfully operated on is very small, I desire here to place them on record. The first was that of a young man of very poor physique in whom the sound struck a stone the moment it entered the bladder. His symptoms had been of long duration and markedly pronounced, so that I concluded that the stone was large. A lithotrite passed into the bladder grazed the under surface of the stone, but all attempts to seize it proved futile. With the left forefinger in the rectum and my right hand placed on the lower abdomen I could distinctly feel the projecting calculus fixed beneath the pubic arch. Here was a combination of circumstances which might be said to invite an attack from above, and accordingly I proceeded at once to perform my first suprapubic lithotomy. Sir Henry Thompson had but a

FIG. 3.

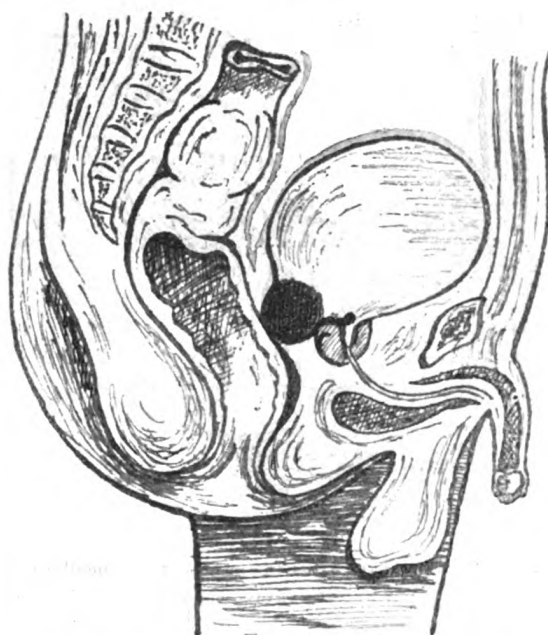


Sagittal section to the left of the middle line through the pelvis, showing an encysted calculus in the bladder beneath the pubic arch and to the left side, removed by suprapubic lithotomy from a young man. (Weight, seven drachms.)

few months before described the operation in detail, and I followed in the main the directions which he had given. On inserting my finger through the suprapubic opening it immediately impinged upon a stone slightly projecting on the left of the urethra. A further examination revealed the fact that the calculus was imbedded to about three-fourths of its extent in a sacculus occupying a space below the pubic arch and between it and the prostatic urethra. (Fig. 3.) From

this hollow it was shelled out by means of a scoop and the finger and then readily removed. I do not believe that by any other operation the stone could have been extracted. No finger could have done more than touch the exposed end if introduced through the perineum, nor could any lithotrite have been made to grasp the stone between its blades. Of further complications there were none, and the patient's recovery was uninterrupted. The second case, which came under observation at the infirmary in 1888, was in a man 73 years of age. His urethra, owing to what was supposed to be an enormously enlarged prostate, did not readily admit a sound, and on that account, as also because of his advanced age, the severity of his symptoms, the presence of a considerable amount of muco-pus in the urine, and the fact that his bladder retained from six to eight ounces of residual urine, the suprapubic operation was decided upon. A globular oxalate calculus weighing 13 drachms was removed from a pouch at the base of the bladder situated on the right of the middle line, which concealed all but the slightly projecting surface of the stone. (Fig. 4.)

FIG. 4.

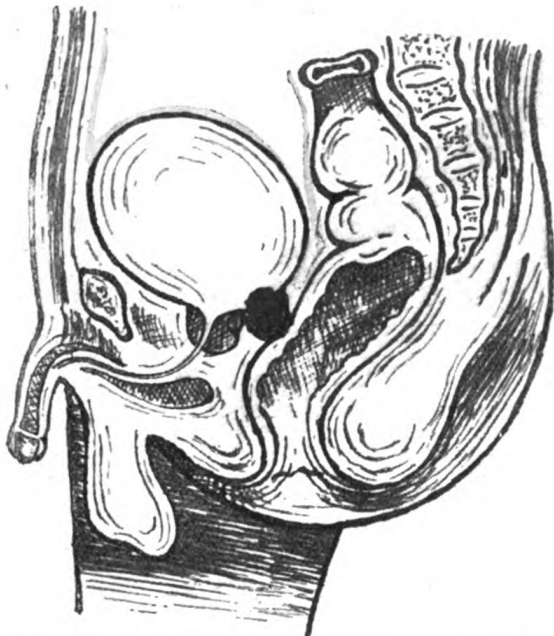


Sagittal section to the right of the middle line through the pelvis, showing an encysted calculus on the right of the base of the bladder and a projecting middle lobe of the prostate in a man, aged 73 years, both removed by suprapubic lithotomy. (Weight of calculus, 13 drachms.)

This it was which had led to the supposition of his prostate being largely hypertrophied. As a matter of fact the prostate was enlarged, but the hypertrophy was confined to the middle lobe, which, projecting upwards in such a manner as to obstruct the urethral entrance, was removed. Recovery followed. The third case came under my care in 1899. The patient, aged 60 years, after having long suffered from painful micturition had the misfortune whilst following his occupation to crush his perineum by falling from a height astride a beam. Urethral laceration, attended by copious hæmorrhage, was followed by a troublesome stricture which added considerably to his urinary difficulties and suffering. Prior to the accident he had undergone treatment for cystitis. When brought under my observation some months after his accident his condition was most unpromising. His urine, passed guttatim, was purulent and offensive. He was sallow, thin, and devoid of appetite. As a No. 3 gum elastic catheter had been occasionally passed with temporary relief and without exciting any febrile disturbance I began gently to dilate the stricture by means of Lister's sounds, beginning with 2-5. Before I had proceeded far the sound struck a stone, and thus I found myself in face of an added difficulty. My first impulse was to perform external urethrotomy and to extract the stone through the median incision, but as for this I was not

prepared proceedings in that direction were arrested. Further dilatation enabled me to make a closer and more detailed examination. First I satisfied myself of the facility with which a free dilatation of the urethra could be accomplished; then I was able to make out by means of the sound that the stone was of considerable size, that it lay on the left at the base of the bladder, that it was fixed in its position, and lastly, by means of the finger in the rectum, that it projected backwards beyond the prostate towards the sacrum and was probably situated in a pouch. On a subsequent day I opened the bladder above the pubes and removed a calculus weighing 10 drachms from a pouch situated as I have just described, which inclosed almost the entire stone, leaving only a segment of its surface exposed. His future course and recovery were uneventful. (Fig. 5.)

FIG. 5.



Sagittal section to the left of the middle line through the pelvis, showing an encysted calculus on the left of the base of the bladder, removed by suprapubic lithotomy from a man, aged 60 years. (Weight of calculus, 10 drachms.)

The success attendant upon these cases thus briefly narrated, together with the facility with which the stones, though deeply imbedded in the bladder wall, were extracted, weigh much with me in estimating the relative value of the several modes of performing lithotomy. In the first case, as I have already remarked, by no other route could the stone have been removed; in the other two the difficulties of their extraction through the perineum must have been well-nigh insurmountable, whilst in none of the three would it have been possible to grasp the stone within the blades of a lithotrite.

Up to the year 1883 perineal lithotomy, lithotripsy, or a combination of the two in the case of a very large stone, was adopted in my practice in every case, lithotripsy being reserved for the smallest stones in adults whose general conditions were favourable, median perineal lithotomy selected for small stones in children, and lateral or very rarely bilateral lithotomy for medium-sized and large stones at all ages. From 1883 to 1890 was a period of transition. Litholapaxy was rapidly superseding lithotripsy, and the suprapubic lithotomy was with almost general consent replacing the perineal operation. Since 1890 my practice has been without exception limited to the two operations, litholapaxy and suprapubic lithotomy—to the former whenever I have found it reasonably practicable, irrespectively of the age of the patient and to a great extent of the size of the stone; to the latter whenever existing conditions were such as definitely to forbid the use of the lithotrite and aspirator, and in a few instances in which the weight of evidence seemed to favour the shorter, if on the whole

severer, measure. With these two operations and their results I feel much reason to be satisfied; and although finality is no more applicable to the treatment of stone in the bladder than to other surgical problems I feel little doubt that in the near future any improvement in our means of dealing with calculous formations must be directed to the perfecting of our present methods of procedure rather than to the discovery of new operations or the revision and revival of the old. Perineal lithotomy, associated though it has been with many generations of the greatest surgeons in the world, up to a few years ago universally held to be the most important operation in surgery, is now all but relegated to the past, lingering only, I believe, in the hands of the few, and is doomed almost certainly to become ere long a subject for the historian alone.

The three subjects upon which I have so cursorily discoursed are not the least important amongst the many which have exercised, and still are exercising, the minds of the present generation of surgeons. In each there is much need for increased experience and for wider observation, and if my small contribution be considered at all worthy of the acceptance of this audience I shall feel myself more than rewarded.

## An Address

ON

### A MODEL HOSPITAL.

*Delivered at the Opening of the New Victoria Wing for Out-patients at Bolingbroke Hospital, Wandsworth Common, on Dec. 11th, 1901,*

By THOMAS BRYANT, F.R.C.S. ENG.,  
M.Ch. R.U.I.,

SURGEON-IN-ORDINARY TO THE KING; SURGEON TO BOLINGBROKE HOSPITAL; CONSULTING SURGEON TO GUY'S HOSPITAL, &c.

CANON ERSKINE CLARKE, LADIES AND GENTLEMEN,—I accepted with much pleasure the invitation of the governors of this hospital to open to-day its new out-patient department, as I have been connected with the hospital for more than 12 years and cordially appreciate the way in which it has been worked and is now conducted. I might recently have regretted that the main object its founder had in view has from the wants of the neighbourhood been obliged to take a back place, but I bow with respect to the necessities of the position and will, with my colleagues, do our best to work the hospital under its new conditions. The hospital, as most of you know, was founded in the year 1880, with the praiseworthy object of helping those who were willing and able to help themselves; for its founder, and our life-long President, our friend the Rev. Canon Erskine Clarke, fully recognised the fact that the free hospital system as generally established, though full of good influences, had a tendency to sap the self-reliant manhood and womanhood of the poorer classes, which it is so right to foster, and consequently to pauperise a large section of the well-to-do artisans and others who have the inclination and power to pay part of their cost when they are compelled to seek hospital treatment. With this well-conceived object this mansion was purchased, fitted up, and opened as a self-supporting hospital by Canon Clarke at his own risk, but with the aid of contributions, and with the hope that a sufficient number of patients would be found able to pay more than their cost, so that others might pay less, and that thus the hospital would be maintained. For 16 years the hospital was carried on upon these lines, with fluctuating and variable success, and during this period the founder had to advance large sums of money to keep it going. For the last three years of this period, also, great pressure from the outside leaders of labour was brought to bear upon the hospital authorities to change its constitution so that accidents might be admitted to its wards and out-patient casualties be attended to—for during these years Battersea had been rapidly growing and had become an important manufacturing centre, and it was naturally felt that with a hospital on Wandsworth Common it was rather hard, and in a measure detrimental to those who were the

subjects of accidents, to be denied access to the surgical treatment which was possible at their Home, Bolingbroke Hospital, and to be sent for treatment to St. George's Hospital, St. Thomas's Hospital, or Guy's Hospital, which were from four to five miles distant. Under this pressure and with a full appreciation of the urgent requirements of Battersea the governors of this hospital felt called upon to change in a measure the hospital as a self-supporting institution in to what it has since become—a free hospital for the admission of accidents and emergencies supported by voluntary contributions, relegating with regret the paying class into a less prominent position, although wisely still retaining it.

The following facts will help you to understand why the governors of the hospital were influenced and how necessary the change in the constitution of the institution had become, for in the course of the latter five months of the year 1893, when the change of practice commenced as an experiment, seven patients were as subjects of accident admitted into the hospital and 217 attendances of patients were given as out-patients. In 1894 there were 19 admissions and 980 attendances; in 1895 there were 64 admissions and 1784 attendances; and in 1896 there were 105 admissions and 3719 attendances—this year being the last of the old régime, for in December, 1896, the hospital became incorporated, and in 1897 the present home and free accident hospital for the treatment of in- and out-patients was practically started. How it has progressed since that date and how much the district appreciated the hospital the following figures well prove, for in 1897, the first year of its incorporation, there were 179 admissions and 9139 attendances; in 1898 there were 219 admissions and 13,668 attendances; in 1899 there were 217 admissions and 14,142 attendances; in 1900 there were 255 admissions and 15,162 attendances of 3206 new free patients. And in the 10 months of the year 1901 there have been 334 admissions, and far larger figures of attendances, whilst the attendances of cases of throat and ear diseases during this same period ran up from 148 in 1894 to 1108 in 1899.

This hospital is now, therefore, practically a free hospital for accidents and emergencies and its board of management looks to the inhabitants of this large industrial district with a population computed at 500,000 and their friends for the financial support which is not only essential to enable it to carry out its present functions, but to meet the rapidly growing requirements of the future. It is true that the new building which we have this day met to open will do much to facilitate the work of the out-patient department which has hitherto been carried on under grievous difficulties, but it will do no more. We want, and urgently want, more free beds for accidents as well as for the diseases which follow accidents, for at the present time we have but 30. In the excellent scheme which has been designed for future buildings, and which is displayed to-day for your inspection, these wants will be met. It has been drawn up by the medical staff under the supervision of Mr. Keith Young and is in every particular up to date. The scheme only wants your pecuniary support to enable it to be carried out, and I most strenuously urge your early attention to this great requirement. To defray the cost of this new out-patient department about £6000 have been wanted. A large proportion of this sum has been collected, including two liberal donations from the Prince of Wales's Fund; but a balance of at least £600 is needed to allow the governors to start clear of debt. Much more money will necessarily be required to complete the building as proposed, but it can be carried out piecemeal; and from the drawings you will learn that it can be done in three blocks. Each block may have its own name. The one which we have to declare open to-day will be the "Victoria Wing"—what better name could be found, for in the word "Victoria" all human goodness seems to be embodied as in the personal qualities of our late lamented sovereign. May other names implying as much be speedily attached to the blocks to be added, and may the blocks be reared higher. Let us hope that there will be some competition to secure the honour of having names attached to the blocks; there are only three that can be so associated. I wish that I could be one of the competitors for fame, for nothing would give me greater pleasure than having my name associated as its founder with such a block, but I am not a wealthy manufacturer and have more to do with mending broken things and helping lame dogs over stiles than making anything; but I envy those who have the means, and they are many, and I at any rate have

a pleasure in pointing out to those who have the power and will to do good the means of immortalising their names by such a work.

And here I must draw your attention to a special feature in the working of this hospital which in the past has been the secret of its success and in the future is not likely to be of less value—and that is the invaluable coöperation of the medical practitioners of the district in carrying on the hospital work. Indeed, I look upon this institution as an object lesson which has proved how by a little tact and useful methods a hospital can be made popular to the medical as well as to the lay classes without any loss of usefulness and with mutual advantages. In 1893, when the pressure from without the hospital was brought to bear upon the governors to admit and to treat accidents, the question was referred by the governors to the local medical practitioners, and at a meeting of these gentlemen with the resident medical officer, Mr. C. R. C. Lyster, whose tact and influence are of a high order, the following rules were drawn up:—

1. Emergency cases to be attended at once.
2. If possible patients after being attended are to be sent home to be under the charge of their own medical man.
3. If unable to leave the hospital the patient's own doctor will be so informed, in order that he may take charge of the case if found expedient.
4. The doctor of all in-patients to be consulted as to their means of paying either the whole or part of their cost while in the hospital.
5. Cases not sufficiently serious to be admitted as in-patients, and yet requiring dressing and attendance which they are unable to pay for, will be treated at the hospital free on the written request of their own doctor.

These rules were subsequently accepted by the board and passed and adopted as the rules for attending accidents. Indeed, all accident cases have been attended under these rules for the three years antecedent to the date of the incorporation of the hospital in 1896, and, in fact, have been so ever since they were originally made.

The leading principle upon which this hospital was originally founded and upon which it has been incorporated as an association is as follows: to provide accommodation for the reception of in-patients and treatment of out-patients suffering from disease, accident, or injury who are *unable to pay*, as well as those who are *willing to pay* wholly or in part, but that no patient shall be admitted (unless from accident or emergency) except on the recommendation of a duly qualified medical practitioner. The governors of the hospital entirely approve of this principle and strongly support it. In their report for 1900 they say: "The system of referring the out-patient cases to a medical practitioner in the neighbourhood in which they are resident in order to ascertain if the case is suitable for hospital treatment continues to work effectively and without friction, and the governors are satisfied that it prevents the abuse of the hospital by those whose circumstances permit of their paying a medical man"; and this opinion I cheerfully endorse.

The principles upon which the hospital has been incorporated are somewhat novel, and to the governors of our large general hospitals they may seem difficult to act upon or unsound; but if such thoughts exist in the minds of any of those who have honoured us by their presence on this occasion I can assure them that they are wrong, for it is not possible for any hospital to work more smoothly with the public and harmoniously with the medical officers of the district than this has done. Between July 1st of this year and Oct. 24th, a period of less than four months, 92 different local practitioners sent patients for treatment, numbering 322 cases; no difficulty has arisen in any case and no charge against the hospital of treating unsuitable cases has ever been made. The medical practitioners of the district look upon the institution as an acquisition and do their best to raise funds for its support and extension. I am quite unable to bring forward any instance in which there has been a difficulty with a local medical practitioner and the presence of so many busy medical men here to-day must tend to support this statement. Of the 344 cases admitted from Jan. 1st to Oct. 31st, 1901, 266 were free and 68 were paying cases, or about one case in five. In-patients who are able to contribute towards their cost pay from one to two guineas a week for their bed and board, whilst accident cases are all admitted free, although a few of these patients ask to be placed upon the paying list. It should be added that now and then a patient of good means can be admitted into a private room for an operation who is able to pay three, four, or five guineas for the accommodation, and who, of course, pays the fees arranged for by the

surgeon under whom he or she is admitted. It is to be regretted that at the present time these rooms are too few, and it is to be hoped that in the near future more may be provided, for such accommodation has valuable advantages to all who can utilise it.

The patients who are admitted into the hospital come from an area covered by a circle which radiates about six miles from the building; some come from far distances for special reasons. The out-patients are largely Battersea and Wandsworth people. General medical cases are neither admitted nor seen as out-patients, nor are any specific contagious or infectious diseases; such patients when they apply are referred either to their own medical men or to some hospital. 276 of these have been passed on during the 10 months of this year.

I have thus, gentlemen, briefly explained to you how this hospital came into being, and how from the wants of the neighbourhood it had in the course of years to yield part of its original constitution and to become practically a free hospital for accidents and emergencies. All its special features are worthy of your strongest support, for all are sound in principle and in this hospital have been proved sound in practice. In opening this "Victoria Wing" for out-patient work I must congratulate you upon doing so under the pleasant feeling that you have almost enough funds in hand to pay for it and to equip it. That it will be most beneficial for the work of the hospital I can vouch, for I know what good work has been done under the difficult circumstances which Mr. Lyster and his able helps have had to contend against, and with such arrangements as have been provided for the future the work must even be improved. But I must remind you that what has been done is but a promise of what in the near future has to be done, and that is the completion of the plan which has been laid before you. Until that is completed by no means rest on your oars, but pull on with all your force. The employers of labour in Battersea have through their influence upon the governors of the old hospital, where such good work was done, forced them as it were, by the weight of argument, the logic of facts, and the persistent expression of the wants of their people, to turn the hospital into a free one, with all its risks and responsibilities. The workers at the hospital are quite prepared to undertake all its professional and nursing responsibilities, and, indeed, to accept all risks, except one, and that is its financial responsibilities; these we must throw entirely upon the shoulders of the leaders of labour who by their action have brought about this change and the friends with whom they have influence. In saying this I will express my belief that we shall not do this in vain, for the interest which is taken by these leaders of labour, the tradesmen of the neighbourhood, the artisans and the gentry of the district, is so sound and earnest that we do not doubt, now that the hospital is established upon a free basis, that all will pull together with one object, and that is to get together a fund sufficient for the hospital to pay its way and to build the three wings as soon as possible.

Canon Erskine Clarke, ladies and gentlemen, I now declare this new wing, which is to be called the "Victoria Wing," open from this day—and may God bless the work which is to be done there.

## ON DUODENAL ULCER AND ITS SURGICAL TREATMENT.

By B. G. A. MOYNIHAN, M.S. LOND., F.R.C.S. ENG.,

ASSISTANT SURGEON TO THE LEEDS GENERAL INFIRMARY; CONSULTING SURGEON TO THE SKIPTON AND DISTRICT HOSPITAL AND TO THE MIRFIELD MEMORIAL HOSPITAL.

### DUODENAL ULCER.

ULCERATION of the duodenum may be acute or chronic—acute when there is a rapid destruction, tending to perforation, of the wall, and chronic when the symptoms are latent or subdued and the pathological processes which cause them are altogether passive. Possibly the two forms are often expressions of the same disease, the acute ulcer, with a rapidity and completeness of invasion that suggest an infective origin being the earlier stage of a chronic ulcer in which an attempt is made to check and to repair the ruin which has been wrought. Within the last few years duodenal

ulcers have come more closely under the observation of the surgeon. Acute ulcers have led to perforation; chronic ulcers have caused repeated attacks of hemorrhage or in their healing have so narrowed the bowel that surgical methods alone have been able to afford relief. As our capacity for dealing effectively with any of these complications has increased, so also and concomitantly have our opportunities increased.

**Position of the ulcer.**—Duodenal ulcers are generally situated in the first portion of the duodenum. Collin found in a series of 262 cases that 242 were placed in the first portion, 14 in the second, three in the third, and three in the fourth. Perry and Shaw found that in 149 cases 123 were situated in the first portion, 16 in the second, two in the third and fourth; in eight cases the ulcers were scattered. Oppenheimer states that in 81 cases 69 were situated in the first part, eight in the second, and four in the third and fourth. Ulcers in the first portion of the duodenum, then, are at least ten times more frequent than in the second. In the majority of cases the ulcers are solitary. If multiple they are usually crowded together in the first portion; but ulcers in the first portion associated with others in the second or third are recorded by Clark, Schwartz, and Dudensing. When two ulcers are present they are not infrequently opposed, those portions of the wall being affected which lie in contact. A similar opposition is, of course, not seldom observed in the stomach. The frequency of such a condition is suggestive of infection. Ulcers in various stages of activity may co-exist. An acute perforating ulcer may be found with a chronic ulcer or either with the scars and puckers of healed ulcers.

**Age.**—Patients of all ages may be affected. Oppenheimer has collected 15 cases of "melæna neonatorum," resulting from duodenal ulcer. Chvostek found ulcers present in children three hours, four days, and seven weeks old. Ulcer in the new-born child is described by Henoch, Zerschwitz, and Dusser. Krannhals relates the case of a child five years of age who died from dysentery. Ulceration was present in the duodenum; the rest of the small intestine was healthy. Haman records a case of the traumatic rupture of an ulcer in a child of 10 years of age. Clark records cases of perforation in patients 19 years and 20 years of age. Krannhals observed a case in a female 79 years old, and Merkel found an ulcer in the duodenum of an old woman, aged 94 years.

**Sex.**—All observers are agreed that men are much more frequently affected than women, though they vary in the estimates of their relative susceptibility. Taking the statistics of Collin, Perry and Shaw, Trier, Krauss, Chvostek, and Oppenheimer, all of whom have recorded over 50 cases, we have a total of 645 patients, 508 men and 137 women. We may therefore assess the proportion at four males to one female. The cause of the greater frequency of the affection in men is, with our present knowledge, quite inexplicable. Gastric and duodenal ulcers may be present at the same time. Such an occurrence has been described by Rokitsansky, Finlayson, and Oppenheimer, and is noted in the records of two of the patients upon whom I have operated.

### SYMPTOMS.

The symptoms of duodenal ulcer are chiefly characterised by their lack of ostentation. In more than half of the cases where ulceration is found at the necropsy symptoms have never been present. In 151 cases collected by Perry and Shaw in which duodenal ulceration was found post mortem there were 91 in which there were no antecedent symptoms. Every author that I have consulted emphasises the "latency" or the "torpidity" of the disease. Symptoms when present may be of an indifferent type or may resemble closely those aroused by ulcer of the stomach. The co-existence of the two forms of ulceration, gastric and duodenal, would seem from my experience to be more frequent than is generally believed, and the apparent confusion in the symptoms of certain cases may be dependent upon the simultaneous presence of both forms of ulcer. The cardinal symptoms are (1) pain, (2) hæmatemesis, and (3) melæna.

1. **Pain** is generally experienced one hour or more after the taking of food, and is referred to the epigastrium, or the right hypochondrium, or indefinitely to the upper part of the abdomen. It is variable in intensity, and though generally trivial and hardly more than a sense of discomfort or vague uneasiness, it may be acute, persistent, and at times almost intolerable. I am disposed to think that reliance may in general be placed upon the time of onset of pain after food

as indicating the position of an ulcer in the stomach or duodenum, and that, as a rule, the nearer the ulcer to the cardia the more swift is the onset of pain. The researches of Professor Birmingham on the anatomy of the stomach enable one to understand the reasons for this. Unless a duodenal ulcer is associated with a gastric ulcer the pain does not appear for from two to three or four hours. Pains radiating to the right shoulder or to the side and back are occasionally noted. It has been said that the drinking of alcoholic fluids increases or elicits the pain.

2. *Hæmatemesis* is an occasional and rather erratic symptom. Vomiting is observed approximately in one-third of the cases. In Perry and Shaw's series of 60 cases presenting symptoms hæmatemesis was present in 14. The bleeding is rarely severe. The characteristic vomiting of duodenal ulcer comes on about two hours or more after food, and bile is not seldom observed in the ejected matter.

3. *Melæna* is not improbably overlooked in a large number of cases, more especially when the intestinal hæmorrhage has been slight. When the vessel opened is large the bleeding may be copious and may induce faintness and subsequent temporary anæmia (see Case 4 of my list). If a large arterial or venous trunk is opened the hæmorrhage may be overwhelming and lethal. *Melæna* was observed in nine of Perry and Shaw's 60 cases. Oppenheimer found blood in the stools of exactly half of his patients. The examination of the stools for small quantities of blood is so unusual a research in a general hospital that we must indisputably allow that entorrhagia may often pass unnoticed.

#### THE COMPLICATIONS OF DUODENAL ULCER.

The following are the chief complications of duodenal ulcer: (1) profuse hæmorrhage; (2) perforation (acute, sub-acute, and chronic); (3) cicatricial contraction and induration and their sequelæ; (4) periduodenitis; and (5) cancer. In 20 fatal cases collected by Perry and Shaw nine patients died from hæmorrhage, eight from perforation, and three from cicatricial contraction of the duodenum or bile-duct.

1. *Hæmorrhage* is seen more frequently and in larger quantity in chronic ulcer. The vessels affected may be those in the wall of the bowel or any of the larger arteries or veins in the neighbourhood. Ulceration into the following arteries has been recorded: aorta (Stich, Grunfeld), hepatic (Broussais), gastro-duodenal (Leeds Museum), superior pancreatico-duodenal (Allchin, Wunderlich), and the pyloric, pancreatica magna, gastro-epiploica dextra, and into the vena porta (Rayer and Habershon) and the superior mesenteric vein (Warfvinge).

2. *Perforation*.—A duodenal ulcer may perforate at once and acutely into the peritoneal cavity or may slowly destroy all the coats of the bowel and lead to the formation of a localised encysted abscess. If the former, the fluid escaping from the viscus is free to run at large in the peritoneal cavity. In many of the cases, as is seen from a study of the records and was exemplified in Case 2 recorded below, a well-defined path is taken. The fluid (generally mucus more or less tinged with bile) escapes on to the upper surface of the transverse mesocolon to the right of the hillock which is formed by the fitting in of the transverse colon to the greater curvature of the stomach (see Figure).

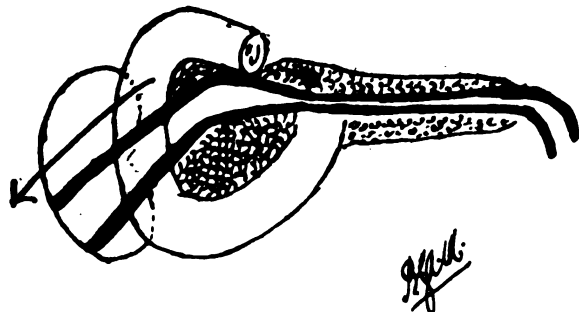


Diagram to illustrate the obliquity of the transverse mesocolon on the right side. Fluids escaping from the first portion, or the upper half of the second portion, of the duodenum gravitate to the right kidney pouch and thence to the right iliac fossa.

It therefore tends to run to the right to the hepatic flexure, and then to descend along the outer side of the ascending colon to the iliac fossa. There collecting it may cause symptoms strongly suggestive of appendicitis.

From the iliac fossa the fluid drains to the pelvis, and filling that overflows into the left iliac fossa. If an abscess forms it may be bounded by lymph, by the liver, or by intestines. Meunier describes a local abscess in his case as being bounded by the quadrate lobe of the liver, the gall-bladder, and the transverse mesocolon. Lennander relates a case where an abscess was hemmed in on all sides by intestine. The perforation of such an abscess may lead to acute septic generalised peritonitis as recorded by Planchard. Perforation of the upper portion of the duodenum may lead to subphrenic abscess. Seven cases of this kind are related in Maydl's monograph. An ulcer may destroy all the coats of the bowel and its base be formed by the liver (Keyl, Herzfelder, Collin), or by the gall-bladder (Krauss, Moynihan). An ulcer may destroy all the coats of the bowel and perforate a hollow viscus forming an "internal duodenal fistula." Rokitsky describes a case of gastro-duodenal fistula, Hoffman and Gross cases of cholecysto-duodenal fistula, Murchison, West, and Sanderson cases of duodeno-colic fistula, and Dudensing a case where the ulcer had perforated the pancreatic duct. An ulcer may destroy all the coats and lead to the formation of an abscess which bursts upon the surface of the body, forming an "external duodenal fistula," as recorded by Lumeau and Buquoy. The duodenal wall may be ulcerated through by an abscess arising from without, as in a case of lumbar abscess bursting into the duodenum close to the biliary papilla, under the care of Davies-Colley.<sup>1</sup>

3. *Cicatricial contraction and induration and their sequelæ*.—All ulcers of the duodenum in their healing tend naturally to contract. The results of such contraction will necessarily depend upon the position of the ulcer. If the ulcer has been in the first portion the narrowing of the lumen will result, as in pyloric stenosis, in dilatation of the stomach; if in the second portion there may be a dilatation of the duodenum and the stomach; or if the ulcer has invaded the bile-papilla a narrowing or obliteration of the common bile-duct and pancreatic duct. Four examples of this are quoted by Perry and Shaw, and a case is related by Swensson<sup>2</sup> in which cholecystenterostomy was performed. If the ulcer is in the third or fourth portions a dilatation of the duodenum and the stomach may result (Rewidzow). The contraction of the inflammatory material in and around an ulcer may affect the structures in the immediate neighbourhood. Collin describes a case of thrombosis and cicatricial ligature of the vena porta caused in this manner.

4. *Periduodenitis* may originate in the localised peritonitis at the base of a duodenal ulcer, from chronic perforation of an ulcer, or from causes primarily unconnected with the duodenum. Of the latter the most common is dependent upon disease of the gall-bladder or bile-ducts. Chronic pancreatitis or malignant disease of the head of the pancreas, following long-continued gall-stone irritation, may also cause the pouring out of inflammatory products by the peritoneum.

5. *Cancer*.—The cancerous transformation in chronic ulcers of the stomach is now a well-recognised pathological change. A similar condition of "ulcus carcinomatosum" has been observed in connexion with chronic duodenal ulcer. Cases are related by Ewald, Schrötter, and Mackenzie. Five cases are quoted by Perry and Shaw, but in no case is the description convincing and I should be disposed to question their claim to acceptance.

#### THE SYMPTOMS OF ACUTE PERFORATION.

The symptoms of an acute perforation differ at the first but little, if at all, from those which follow the perforation of a gastric ulcer. There is the same sudden, intolerable, and overwhelming pain; there are rigidity and tenderness of the abdomen and profound collapse. In duodenal ulcer there is said to be a disposition to localise the pain in the right hypochondrium rather than in the epigastrium, but the records of published cases, and of my own cases, do not support this. As in gastric ulcer, so in duodenal, the sudden, terrible pain may induce a collapse which proves almost immediately fatal. A few years ago I performed a post-mortem examination for the coroner on a young man who had died suddenly. I found a perforation of the duodenum just beyond the pylorus. The relatives, when pointedly asked, affirmed that the patient had never suffered from any gastric or intestinal disorder.

After the first shock has passed the symptoms and signs

<sup>1</sup> Guy's Hospital Reports, 1893, p. 573.

<sup>2</sup> Hygela, Stockholm, 1888.

of gastric and duodenal perforation differ in their development. When the ulcer is in the stomach the signs are those of general peritoneal inflammation; when the ulcer is duodenal the course taken by extravasated fluids leads to a more acute and an earlier involvement of the peritoneum on the right side and in the right iliac fossa. The clinical picture of appendicitis is copied with such accuracy that in the 49 recorded cases tabulated in my list, in 18 the first incision was made over the appendix, after a diagnosis of acute appendicitis had been made. In the final stage the peritoneal infection is universal.

#### TREATMENT.

The medical treatment of duodenal ulcer should be carried out with the same persistence and care as are needed in treating ulcers of the stomach. Surgical treatment may be called for: (1) when an acute ulcer perforates; (2) when subacute or chronic perforation leads to periduodenal or subphrenic abscesses; (3) in chronic ulcer when pain and gastro- or enterorrhagia are persistent and disabling; and (4) when cicatricial contraction and induration or periduodenitis have caused narrowing of the calibre of the gut and dilatation of the stomach or of the stomach and that part of the duodenum behind the stricture.

1. *When an acute ulcer perforates.*—There are on record 49 cases of operation for acute perforation of a duodenal ulcer. I have operated upon two cases, making a total of 51. In 18 of these cases a diagnosis of appendicitis was made; in two cases only, that recorded by Perkins and Wallace and in my first case, was a correct diagnosis achieved. The following are the notes of my two cases:—

CASE 1.—The patient, a male, aged 44 years, was admitted under my care into the Leeds Infirmary on April 24th, 1900, and was sent by Mr. H. de P. Veale of Drighlington. The patient was a morose individual of deficient intelligence, and a history was therefore difficult to elicit. Symptoms had been present for 18 months; the chief of them was pain, experienced after food, two, three, or four hours after, beginning in the right hypochondrium and spreading upwards and downwards. Blood had been observed when the patient vomited; vomiting was frequent but irregular, occurring sometimes within half an hour of a meal, sometimes four hours after. There was no melena. The patient was kept under observation until May 25th. His pain was evidently most severe and directly influenced by the taking of food. A diagnosis of duodenal ulcer which had been made by Mr. Veale was confirmed and gastro-enterostomy was advised. On the 25th the man became suddenly worse. Pain was complained of over the whole abdomen which was tight, and the abdominal muscles barely moved with respiration. The pulse was 128, the respirations were 28, and collapse was pronounced. Clearly a perforation had taken place. The abdomen was opened and a duodenal ulcer with a perforation about three-quarters of an inch in diameter was found at the beginning of the second portion of the gut. There was commencing peritonitis. The stitches which were introduced to close the ulcer held very imperfectly. After stitching the gut seemed narrowed to at least half its diameter. A gastro-enterostomy was therefore done, a Murphy button being used. The abdomen was cleansed by sponging and a tube with gauze was passed down to the ulcer. The patient never rallied from his collapse and died on May 26th.

CASE 2.—The patient, a male, aged 25 years, was admitted into the Leeds Infirmary on June 18th, 1901, under the care of Mr. W. H. Brown, who kindly gave me charge of the case. The patient, a sturdy, robust labourer, stated that for about four weeks before admission he had experienced pain after food and had vomited. The pain came on either immediately after the taking of food or about from three to four hours subsequently. Vomiting occurred almost immediately after the end of a meal. At 5 p.m. on June 18th, while climbing a ladder, he felt a sudden acute pain in the upper part of the abdomen in the middle line. He reached the top of the ladder, deposited his load, and descended. On reaching the ground he fell and doubled himself up in agony. He was seen by Dr. L. A. Rowden of Roundhay, who sent him at once in his carriage to the infirmary. On admission the patient was profoundly collapsed. The abdomen was exquisitely tender and the muscles formed so rigid a protecting splint that nothing could be felt. Liver dulness was present. There were persistent efforts at vomiting, but little was brought up except frothy mucus. The pulse was 128; the skin was cold. The patient was in the

extremity of anguish. In answer to questions he could utter barely two or three words at each expiratory gasp. Clearly a catastrophe had occurred, and our tentative diagnosis was one of perforated gastric ulcer. I opened the abdomen at 9.50 p.m. (three hours and 50 minutes after perforation). On cutting through the peritoneum a few bubbles of odourless gas and froth escaped. A thin slightly turbid yellowish fluid welled up into the wound. The stomach was examined and found to be intact. A perforation was found equal to a No. 8 or No. 9 catheter in diameter on the anterior wall of the duodenum about one inch from the pylorus. From the opening a yellowish, thick, glairy, bile-stained fluid escaped. The opening was rapidly stitched up by a single continuous suture applied vertically from above downwards and then returning from below upwards. The stitch held quite readily. The abdomen was flushed out thoroughly. The right kidney pouch, the right iliac fossa, and the pelvis contained a turbid yellowish fluid. The left kidney pouch and the left iliac fossa were clean. A drainage tube was placed in the pelvis. A most curious sensation was experienced in handling the omentum and intestines, which, as I remarked at the time, suggested that the intestines had been oiled. The return of the omentum and some small intestine which escaped during the flushing was thereby rendered unusually difficult. During the operation the patient lay on a heated table, was swathed in wool and flannel bandages, and had one-tenth of a grain of strychnine administered hypodermically twice. His condition after the operation was satisfactory. One-twentieth of a grain of strychnine was given hypodermically every four hours for three days. No fluid was allowed by the mouth for 24 hours, sips of water and soda-water being then given. Rectal injections of saline solution (10 ounces) were given every six hours. The drainage-tube was removed in 36 hours. Both wounds healed well and on the nineteenth day the patient sat up. His recovery was quite uneventful.

The accompanying table (Table I.) shows all the cases of acute perforation which have been operated upon up to July, 1901.

In carrying out an operation for a perforated duodenal ulcer the utmost speed consistent with safety and thoroughness is desirable. The abdomen is opened through the right rectus muscle about half an inch or one inch from the median line. Odourless gas escapes as soon as the peritoneum is cut. The perforation, if on the anterior surface, is readily seen, and from the opening bubbles of froth, bile-stained mucus, or altered food will issue. If on the lateral surface the exact position of the ulcer may be discovered by compressing the stomach or duodenum so as to force some of their contents through the rupture. As in the stomach, two ulcers may be found to have perforated, as is recorded by Biggs. As soon as the ulcer is exposed the perforation should be closed by a single or double continuous Lembert suture of silk or fine Pagenstecher thread. The excision of the ulcer is unnecessary and is harmful in so far as it wastes moments which are precious. The rupture being securely closed the peritoneal cavity is cleansed. This should be done freely and methodically. A glass drainage-tube should be introduced into the pelvis by a separate incision above the pubes, and the flushing is then begun. The immediate neighbourhood of the duodenum is first flushed, then, in order, the space between the liver and diaphragm on both sides of the suspensory ligament, the interval between the liver and the transverse colon, the right kidney pouch, the right iliac fossa, the pelvis, the left kidney pouch, and left iliac fossa. The cleansing is best effected by using a long indiarubber tube with a funnel, the soft tubing being readily passed to any spot desired. Saline solution at a temperature (taken with the thermometer) of 105° F. is used. When the returning fluid from all areas is clear the wound may be closed. There is no need to empty by sponging the peritoneal recesses. The usual routine as to the administration of strychnine in large doses hypodermically, the use of a heated table, warm clothing, &c., should be rigidly observed. The value of large doses of strychnine in anticipating and preventing shock does not seem to be appreciated. In a recent case of double primary amputation on the right side at the hip-joint, and on the left in the middle of the thigh, I gave 45 minims of liquor strychnine hypodermically in the three-quarters of an hour that the patient was on the operating table. The patient recovered, and neither he nor any other patient to whom I have administered Gargantuan doses

TABLE I.—OPERATIONS FOR ACUTE PERFORATING DUODENAL ULCER.

No. of case.	Recorder.	Sex.	Age (years).	History.	Condition found and nature of operation.	Result.	Remarks.	Reference.
1	Mackenzie (operator, Sidney Jones).	M.	35	Indefinite epigastric pain, one week; sudden acute pain; vomiting and collapse; alcoholia.	General peritonitis (cause doubtful). Operation at the end of the second day.	Died in a few hours.	Duodenal ulcer found at necropsy just beyond the pylorus.	THE LANCET, Dec. 1st, 1888, p. 1092.
2	Mackenzie (operator, John Croft).	M.	31	Acute attack resembling intestinal obstruction diagnosed as appendicitis and general peritonitis.	General peritonitis of doubtful origin. Operation on the third day.	Died in a few hours.	Duodenal ulcer found at necropsy immediately beyond the pylorus.	THE LANCET, Dec. 1st, 1888, p. 1090.
3	Bolfin.	M.	29	Sudden seizure; abdominal pain, vomiting, and distension; diagnosis of perforative peritonitis.	General peritonitis. Operation in 90 hours. A cavity containing two quarts of serous fluid was found beneath the liver.	Died on the same day.	—	Congrès Français de Chirurgie, 1892.
4	Lockwood.	M.	28	Sudden, violent pain while drinking tea; later fecal vomiting and tympanites.	Peritonitis; gas and pus evacuated; drainage. Operation in 80 hours.	Died in seven hours.	Perforation of the duodenum found at the necropsy.	Transactions of the Medical Society of London, 1892.
5	Lockwood.	M.	41	Slight previous indigestion. While at work a sudden seizure with abdominal pain and vomiting.	Septic peritonitis; drainage.	Died in ten hours.	Perforation of the duodenum found post mortem.	Transactions of the Medical Society of London, 1892.
6	Pearce Gould.	F.	27	Sudden attack of pain in the right hypochondrium, soon becoming general; vomiting; tympanites; no loss of liver dulness.	General peritonitis; incision below the umbilicus allowed the escape of fluid; then incision above the umbilicus revealed a perforation. Operation in 24 hours; ulcer excised.	Died in six hours.	Suture firm, but general peritonitis.	Middlesex Hospital Reports, 1893.
7	Perry and Shaw (operator, W. H. A. Jacobson).	M.	21	Sudden attack of acute abdominal pain in the lower part; vomiting and collapse.	Large quantity of dark brown acid fluid with fecal odour evacuated.	Died in four hours.	At necropsy a perforation was found in the first part of the duodenum on the anterior surface. A second ulcer was found immediately opposite.	Guy's Hospital Reports, 1893.
8	Lockwood (J. Langton's patient).	M.	56	Brought to hospital with abdomen tympanitic and the signs of acute intestinal obstruction.	Peritonitis; purulent and fecal fluid evacuated.	Died in a few hours.	Ulcer of the duodenum was found at the necropsy; suture could have been easily performed.	THE LANCET, Oct. 27th, 1894, p. 968.
9	Lockwood.	M.	28	Sudden pain in the abdomen while ascending an omnibus; vomiting. Admitted to hospital on seventh day with intestinal obstruction. Coils of intestine were seen to be contracting.	Purulent peritonitis in the pelvis, irrigation, drainage. Operation in 150 hours.	Died in 54 hours.	Ulcer of the duodenum found post mortem, with local peritonitis and abscess. A second ulcer was found in the stomach.	THE LANCET, Oct. 27th, 1894, p. 968.
10	Lockwood.	M.	61	Long history of gastric ulcer; no hæmatemesis; sudden pain in the right hypochondrium; collapse.	Operation in four and a half hours. Perforation was found in the anterior wall of duodenum; this was sutured.	Died in six days.	A second ulcer was found on the posterior wall of the duodenum.	THE LANCET, Oct. 27th, 1894, p. 968.
11	Eve.	M.	28	Sudden abdominal pain while lifting; vomiting immediately; on third day this became fecal.	Operation in 62 hours; sero-pus was evacuated. An ulcer as big as a florin was found one inch from the pylorus; edges pared; omental graft made.	Died in two hours.	No necropsy.	THE LANCET, Nov. 10th, 1894, p. 1092.
12	Dean.	F.	27	Epigastric pain for a fortnight; sudden abdominal pain; vomiting and collapse.	Operation in 30 hours. Incision was made below the umbilicus, then prolonged upwards; gas was seen issuing from near the duodenum. Ulcer was seven inches from the pylorus and was sutured.	Recovered.	Nothing given by the mouth for 17 days. After two months an attack of intestinal obstruction; operation on third day; death.	Transactions of the Medical Society of London, 1894.
13	Brissaud.	M.	35	Sudden abdominal pain and vomiting; tympanites; collapse.	Operation in 51 hours. Incision over the appendix gave issue to fecal matter; general peritonitis; drainage.	Died in a few hours.	Perforation was found just beyond the pylorus.	Collin: Thèse de Paris, 1894.
14	Bryant.	M.	—	After a debauch a sudden attack of pain in the right side of the abdomen.	Operation in 53 hours, as for appendicitis; pus and milky fluid were evacuated; drainage.	Died.	A perforated duodenal ulcer was found at the necropsy. A sac around the cæcum contained milk and food.	Medical Record, 1896.

TABLE I.—OPERATIONS FOR ACUTE PERFORATING DUODENAL ULCER—(Continued).

No. of case.	Recorder.	Sex.	Age (years).	History.	Condition found and nature of operation.	Result.	Remarks.	Reference.
15	Sheild.	M.	20	Sudden severe pain while at the theatre. No vomiting until second day; tympany, pain, and tenderness over cæcum. An opinion was expressed that the case was one of appendicitis.	Operation in 60 hours. Odourless gas; thin pus and lymph in peritoneum. Lavage.	Died in 24 hours.	A perforation was found in the anterior wall of the first portion of the duodenum.	THE LANCET, May 11th, 1895, p. 1169.
16	Sheild.	M.	23	A sudden attack of pain and vomiting three years before. Present attack began with acute pain and vomiting; tympanites.	Operation in 120 hours. Odourless gas and thin pus escaped. The jejunum was incised; lavage; drainage.	Died in 22 hours.	Necropsy revealed a duodenal ulcer half an inch from the pylorus.	THE LANCET, May 11th, 1895, p. 1169.
17	Bolton.	M.	28	The patient was an alcoholic. Sudden abdominal pain and vomiting, followed by tympanites.	General peritonitis. Irrigation; drainage.	Died in three days.	Ulcer in third portion of the duodenum, with pancreas forming the base.	Medical Record, 1900, p. 495.
18	Bolton.	M.	35	The patient was an alcoholic. History of similar attack 13 years before. Abdominal pain and vomiting for a few days; tender abdomen.	Diagnosis of appendicitis. Incision over appendix revealed general peritonitis. Drainage.	Died in a few hours.	Ulcer in first portion; periduodenitis.	Medical Record, 1900, p. 495.
19	Festal.	M.	56	A long history of gastritis, diarrhoea, and melæna. An acute attack of pain four hours after food, vomiting, and collapse. Tumefaction on third day in iliac fossa.	Diagnosis of appendicitis. Operation in 66 hours. Incision over appendix; douche and drainage.	Died in nine hours.	Ulcer just below the pylorus occupying two-thirds of the circumference of the gut. Healed ulcer of the stomach.	Journal de Médecine de Bordeaux, 1895.
20	Herczel.	M.	33	Sudden pain in the right hypochondrium; collapse.	Operation in 25 hours. Purulent fibrinous peritonitis. Perforation found and sutured.	Recovered.	Attack of bronchitis during convalescence.	Pagenstecher: Deutsche Zeitschrift für Chirurgie, 1899, p. 556.
21	Bolton.	M.	35	A hard drinker. Sudden severe abdominal pain without vomiting; diagnosis of appendicitis.	Operation in 20 hours; general peritonitis.	Died in 24 hours.	Necropsy showed a perforating ulcer in the duodenum one and a quarter inches from the pylorus, and a second ulcer lower down.	Medical Record, 1900.
22	Warren.	M.	52	An attack of acute epigastric pain six years previously; ill ever since. Acute attack of severe pain about pylorus, tympanites, and vomiting; appendicitis diagnosed.	Operation on fourth day. The intestines were distended and covered with lymph. Ulcer in duodenum was sutured.	Died in three days.	No necropsy.	Boston Medical and Surgical Journal, 1895.
23	Dunn.	M.	—	Sudden epigastric pain while at work followed by vomiting; tympanites and loss of liver dulness.	Operation in 30 hours. Perforation in the anterior wall of the first portion of the duodenum. Gas and yellowish fluid were evacuated. A second laparotomy was necessitated owing to return of symptoms; adhesions only found; mural abscess.	Recovered.	—	Brit. Med. Jour., vol. 1., 1896.
24	Länderer and Glucksmann.	M.	50	10 or 15 years' pain, hæmatemesis, and melæna. Eight months before patient had had all the symptoms of perforation, but at the operation no ulcer was found; blood-stained fluid was seen to escape from near the duodenum. Admitted with peritonitis.	General septic peritonitis.	Died.	Ulcer of second part found at necropsy.	Mittheilungen aus dem Grenzgebiete der Medizin und Chirurgie, vol. 1., 1896.
25	Banret and Lardennois.	M.	24	Acute epigastric pain at the end of a meal. Diagnosis lay between appendicitis and duodenal perforation.	Operation in 19 hours. A perforation on the anterior surface of the duodenum near the pylorus was sutured; peritonitis.	Died in 20 hours.	Suture tight.	Bulletin de la Société Anatomique de Paris, 1897.
26	Lardennois.	M.	26	Intense pain on the left side of the abdomen during exertion; vomiting was blood-stained and bilious; diagnosis, appendicitis.	Operation in 56 hours. Incision over appendix; peritonitis found; drainage.	Died in 30 hours.	A perforation was found in anterior wall near pylorus.	Bulletin de la Société Anatomique de Paris, 1897.

TABLE I.—OPERATIONS FOR ACUTE PERFORATING DUODENAL ULCER—(Continued).

No. of case.	Recorder.	Sex.	Age (years).	History.	Condition found and nature of operation.	Result.	Remarks.	Reference.
27	Soligoux.	M.	—	A sudden attack of pain and colic.	Perforation of the first portion of the duodenum. Suture.	Died in 12 hours.	—	Bulletin de la Société Anatomique de Paris, 1897.
28	Beausse.	M.	—	A policeman; sudden attack of pain while on duty. Diagnosis of biliary colic; 30 hours after the onset vomiting and distension; diagnosis of appendicitis or intestinal obstruction.	Operation in 48 hours. General peritonitis discovered.	Died in one hour.	Necropsy revealed a perforation just beyond the pylorus.	Journal de Médecine de Paris, 1897.
29	Lennander.	F.	25	History of gastric troubles. Gastric pain was followed by general tenderness and tympanites; diagnosis of appendicitis.	Operation in four days. Incision made over the appendix. General peritonitis.	Died in four days.	Necropsy revealed a perforation close to pylorus. A second ulcer was present.	Mittheilungen aus dem Grenzgebiete der Medizin und Chirurgie, 1898.
30	Lennander.	F.	34	Long history of gastric troubles; pain, vomiting, and rapid pulse.	Operation 15 hours after. A perforation thought to be in the stomach near the lesser curvature was sutured.	Died in 24 hours.	A perforation was found in the first portion of the duodenum. Three ulcers in the stomach.	Mittheilungen aus dem Grenzgebiete der Medizin und Chirurgie, 1898.
31	Lennander.	M.	37	Long history of gastric troubles; sudden attack of pain when sitting up in bed; vomiting; diagnosis of duodenal ulcer or appendicitis.	Operation 60 hours after. A perforation was found in the anterior superior portion of the duodenum near the pylorus.	Died in 26 hours.	Fibrous peritonitis; an abscess between the stomach and the colon.	Mittheilungen aus dem Grenzgebiete der Medizin und Chirurgie, 1898.
32	Schwartz (operator, Rochard).	M.	46	During exertion a sense of injury and abdominal pain; diagnosis of intestinal obstruction.	Operation in five days. General peritonitis, with pus and lymph. On the superior surface of the duodenum near the pylorus a large ulcer was sutured.	Died in two hours.	—	Bulletin et Mémoire de la Société de Chirurgie, 1898.
33	Schwartz (operator, Guinard).	F.	30	History of indigestion; sudden pain during breakfast; diagnosis of perforated gastric ulcer.	Operation after 28 hours. Incision above the umbilicus; escape of gas, bile, and pus. A perforation was found in the right side of the second portion of the duodenum. Opening sutured; drainage.	Died in 14 hours.	Necropsy showed a second ulcer lower down.	Bulletin et Mémoire de la Société de Chirurgie, 1898.
34	Schwartz (operator, Sieur).	M.	23	History of gastric ulcer; sudden attack after drinking coffee; distension, pain, and vomiting.	Operation after 48 hours. General peritonitis; perforation in posterior superior wall of first portion; sutures tore through. The ulcer was walled off by sutures in the omentum.	Died in 36 hours.	General peritonitis; no other lesion.	Bulletin et Mémoire de la Société de Chirurgie, 1898.
35	Wanach.	M.	22	Acute attack three hours after a meal, pain, tenderness, &c.; diagnosis of appendicitis.	Operation in 15 hours. Incision over the appendix; general peritonitis; appendix removed. A second incision showed a perforation in the anterior wall of the first portion; this was sutured.	Recovery after serious and prolonged illness.	Wound was packed with iodoform gauze, and did not heal completely for three months.	Archiv für Klinische Chirurgie, 1898.
36	Whipple.	M.	38	History of pain three hours after food; sudden acute attack of pain; collapse and distension.	Operation after 72 hours. A perforation was found in the anterior wall of the duodenum near the pylorus.	Died in eight hours.	Pus between the liver and diaphragm.	Brit. Med. Jour., vol. ii., 1898.
37	Routier.	M.	30	History of indigestion; sudden severe pain during exertion; abdomen painful, distended.	Operation after 27 hours. Pus in the pelvis and on the right side; general peritonitis.	Died in nine days from pneumonia.	A perforation in the duodenum was partly closed in by adhesions.	Bulletin et Mémoire de la Société de Chirurgie, 1899.
38	Taylor.	F.	17	Indefinite abdominal pains, looked upon as due to appendicitis; collapse.	Operation in 12 hours. Incision over appendix. Perforation was found in the anterior wall of the third portion. Purse-string suture, supported by others; drainage.	Recovery; suppuration along drainage tracks.	—	North Carolina Medical Journal, 1899.
39	Erdmann.	M.	30	Sudden pain in the abdomen, followed by shock and toxic symptoms; diagnosis of appendicitis.	Operation in 36 hours. A perforation was found in the first portion of the duodenum.	Died in a few hours.	—	Medical Record, 1899.
40	Erdmann.	M.	40	Seized with pain while at work; shock; toxic symptoms; collapse.	Operation in 20 hours. Perforation in the first portion of the duodenum.	Died in a few hours.	—	Medical Record, 1899.

TABLE I.—OPERATIONS FOR ACUTE PERFORATING DUODENAL ULCER—(Continued).

No. of case.	Recorder.	Sex.	Age (years).	History.	Condition found and nature of operation.	Result.	Remarks.	Reference.
41	Brooks.	M.	29	The patient was an alcoholic. For three years he had had gastric trouble; after a debauch he had had abdominal pain, vomiting, and distension; diagnosis of appendicitis and peritonitis.	Operation from one to two days after attack. The appendix was removed and one quart of fluid escaped.	Died in 30 hours.	Perforation was found in the first portion of the duodenum.	Medical Record, 1899.
42	Weir.	M.	30	History of gastric troubles; sudden epigastric pain, vomiting, and prostration; distension and tenderness.	Operation after four days. A perforation found in the anterior superior wall of the duodenum close to the pylorus was sutured.	Died in a few hours.	—	Medical Record, May 5th, 1900.
43	Johnson.	M.	27	The patient was an alcoholic; sudden severe pain in the upper abdomen; chill.	Operation in 10 hours. Bile-stained fluid escaped. A perforation found on anterior surface of descending portion was sutured; flushing.	Recovered.	—	Annals of Surgery, 1899, p. 624.
44	Elliot.	M.	—	No history.	Ulcer at the back of the duodenum was stitched with difficulty.	Died from hæmorrhage.	—	Boston Medical and Surgical Journal, 1900.
45	Elliot.	M.	—	No details.	Operation on fifth day. General peritoneal infection. Ulcer was sutured.	Died on third day.	—	Boston Medical and Surgical Journal, 1900.
46	Perkins and Wallace.	M.	52	Epigastric pain of three days' duration, suddenly increased; a diagnosis of perforated duodenal ulcer.	Operation in 10 hours. An opening was found at the junction of the first and second portions. Suture; drainage.	Recovered.	—	THE LANCET, Feb. 17th, 1900, p. 468.
47	Bolton.	M.	20	Seven months' history; sudden severe pain in the right side; tenderness over the appendix; diagnosis of appendicitis.	Operation in 20 hours. Incision over the appendix allowed escape of odourless gas and fluid.	Died in 24 hours.	Necropsy revealed a perforation just beyond the pylorus.	Medical Record, March, 1900.
48	Bolton.	M.	45	The patient was an alcoholic. Four years previously an attack of severe pain in right side; distension; tenderness; diagnosis of appendicitis.	Operation in 22 hours. Incision over the appendix; escape of turbid serum; flushing; drainage.	Died in seven days.	Necropsy revealed a perforation in the anterior wall just beyond the pylorus.	Medical Record, March, 1900.
49	Christy Wilson.	M.	48	Several years of indigestion; sudden seizure of pain while at work.	Operation after 28 hours. Immediate escape of bile-stained mucus. A perforation found about one inch from the pylorus. General peritonitis; two layers of sutures.	Recovered.	—	THE LANCET, June 15th, 1901, p. 1681.

In compiling this list I have disallowed certain cases which have been accepted by other writers. These are Bolton's first case (there is no post-mortem record); Lennander's third case (a case of chronic perforation with the formation of periduodenal abscesses); and Routier's case of chronic perforation with abscess. The total number, including my own two cases related above, is 51 with eight recoveries.

had any symptoms of poisoning. In my first case it was obvious that the duodenum at the point of ulceration was so narrowed by the suturing that a marked stricture of the bowel would inevitably result, if the patient survived. I therefore gave an alternative route from the stomach by performing gastro-jejunostomy. This procedure is one to which I desire especially to call attention, as it will doubtless prove, in some few cases, of the greatest service. In Case 34 in the table related by Schwartz (operated upon by Sieur) and in Festal's case, where the ulcer occupied two-thirds of the circumference, it would have been an advantage. If, as rarely happens, there is difficulty in effecting a complete suture, or if, as in Landerer and Glucksmann's case, the opening of the ulcer cannot be found, a new outlet from the stomach would give some measure of rest to the duodenum and thereby facilitate healing. Omental grafts or flaps may be used to secure the "walling-off" of the ulcer.

2. When subacute or chronic perforation leads to periduodenal or subphrenic abscess.—Periduodenal abscesses are opened through the abdominal wall in front, subphrenic through the anterior or lateral walls of the abdomen, or through a low intercostal space. If the perforation is discovered, as in the third case related by Lennander, it should be closed by suture, and a drainage tube should be passed

down to the abscess cavity, and should be left in for two or more days. The following case has been under my care.

CASE 3.—The patient, a female, aged 29 years, was admitted into the Leeds Infirmary on Sept. 29th, 1900. She complained of having had several acute attacks of pain, accompanied by vomiting, during the last five years. The first attack occurred after her confinement, and lasted for five days. There was blood in the vomit on that occasion, and blood had been noticed irregularly since. The motions had never been observed. The attacks had appeared without apparent cause. There had always been a sense of discomfort after meals, appearing from one to four hours after food. The diet had not been a full or a generous one for the last two or three years, and the patient was said to have been "fanciful" in her selection of food. There had never been jaundice, and no alteration had been observed in the condition of the urine. On admission the patient seemed, and looked, to be quite well. She was kept in bed and given a light diet. On Oct. 4th she had an attack similar to those from which she had previously suffered. The temperature was 101° F. and the pulse was 100. Vomiting occurred at intervals for three days; there was no hæmatemesis. The right upper quadrant of the abdomen was exquisitely tender and the muscles

formed so rigid a defence that examination was impossible. Pain above and a little to the right of the umbilicus was severe. The patient looked ill and anxious. The motions were normal. After the attack had subsided the stomach was more carefully examined and found to be dilated, reaching three-quarters of an inch below the umbilicus. A diagnosis of pyloric ulcer with perigastritis was made. On Oct. 12th the abdomen was opened between the linea semilunaris and the middle line. Many adhesions were

and left the hospital, the wound being entirely healed on Nov. 5th.

3. *When pain and gastorrhagia or enterorrhagia are persistent and disabling.*—Case 4 in my list is an admirable example of this form. The treatment of such cases is by the performance of gastro-enterostomy. The amount of food passing over the ulcer is reduced considerably (the greater part going by the new opening), and the rest so secured permits the healing of the ulcer.

TABLE II.—CASES OF CHRONIC DUODENAL ULCER.

No. of Case.	Date.	Sex.	Age (years).	Symptoms and description.	Condition found and nature of operation.	Result.	Remarks.
1	January, 1900.	F.	41	At the age of 16 years the patient had had an illness, attended with the vomiting of blood, on one occasion in large quantity. She had had pain after food ever since, at times better, at times worse. The diet had been carefully and rigidly supervised. In June, 1899, pain began to be much more acute, and vomiting, which before had been inconstant, now became frequent. Large quantities (four pints) were vomited. On examination of the abdomen a large contracting stomach was seen. Nothing abnormal was felt over the pylorus.	Thickening at the pylorus, and along the first portion of the duodenum, with contraction and many adhesions. The adhesions were carefully broken down, and gastro-enterostomy was performed.	Recovered.	Quite restored to health; eats well and suffers no pain.
2	January, 1900.	M.	55	Dyspepsia for 10 years; periodic seizures of copious vomiting at intervals of from 24 hours to three weeks.	Enormous stomach; thickening at the pylorus and along the first portion of the duodenum; cicatricial contraction very marked; adhesion to liver. Gastro-enterostomy was performed on two occasions, first with Laplace's forceps and then with Murphy's button.	Recovered.	Seen in July, 1901; had gained two and a half stones and could eat perfectly well.
3	Feb. 16th, 1901.	F.	31	For some years there were pain after food and diarrhoea; pain came on about half-an-hour after food and lasted for three hours or more; hæmatemesis.	Three ulcers were found, two in the stomach near the lesser curvature, one in the first part of the duodenum with considerable induration. Posterior gastro-enterostomy.	Recovered.	Complete relief.
4	March 3rd, 1901.	M.	30	The patient was sent to me by Mr. G. Millhouse and Mr. G. P. Anning with a diagnosis of duodenal ulcer; symptoms had persisted for five or six years. There were pain in the epigastrium after meals and vomiting; had attacks of faintness and prostration, followed by melæna and anaemia.	An ulcer was found in the first part of the duodenum with many adhesions; small scar of gastric ulcer on the posterior surface of the stomach. Gastro-enterostomy.	Recovered.	Complete relief; on May 31st had gained 12 pounds.

found around the pylorus, duodenum, and gall-bladder. On separating these an abscess cavity holding three ounces of pus was discovered. It lay between the liver and duodenum. The duodenal wall was thickened and indurated and there was an ulcer at the junction of the first and second portions which had perforated and caused a localised periduodenal abscess. The liver, gall-bladder, and bile-ducts were intact. A drainage-tube with a sterilised gauze wick was introduced. The patient did well

4. *When cicatricial contraction and induration or periduodenitis are present.*—In such cases the symptoms are those of dilated stomach and a diagnosis of pyloric narrowing will generally be made. Gastro-enterostomy will give complete relief. A case of ulcer, causing stenosis, in the fourth portion of the duodenum is related by Rewitzow. Gastro-enterostomy was performed. My experience extends to four cases, the notes of which are given in Table II.

Leeds.

## EXPERIMENTAL HÆMOGLOBINURIA CAUSED BY A BACTERIAL TOXIN.

By CHARLES TODD, M.D., D.P.H. CANTAB.,  
ASSISTANT BACTERIOLOGIST, ANTITOXIN DEPARTMENT, JENNER  
INSTITUTE OF PREVENTIVE MEDICINE.

(Preliminary Communication.)

It is well known that the injection into the blood-stream of certain substances which have a solvent effect on the red blood corpuscles gives rise to the appearance of hæmoglobin in the urine. This has been described as the result of the injection of certain simple chemical bodies (e.g., distilled water, glycerine, &c.), and of the sera of other animals. Since the discovery of tetanolysin by Ehrlich a series of hæmolysins has been described as produced by various organisms—e.g., bacillus pyocyaneus,<sup>1</sup> staphylococcus aureus and albus,<sup>2</sup> bacillus diphtheriae, micrococcus tetragonus, streptococcus pyogenes,<sup>3</sup> and bacillus typhosus,<sup>4</sup> &c.

<sup>1</sup> Bulloch and Hunter: Centralblatt für Bakteriologie, 1900, Band xxviii., p. 865.

<sup>2</sup> Neisser and Wechsberg: Zeitschrift für Hygiene, 1901.

<sup>3</sup> Lubenau: Centralblatt für Bakteriologie, 1901, Band xxx., p. 356.

<sup>4</sup> E. Levy and Prosper Levy: Centralblatt für Bakteriologie, 1901, Band xxx., p. 405.

These organisms, however, are all pathogenic for animals, and their hæmolytic action, which in most cases is comparatively feeble, is masked by other more obvious pathogenic effects. A more suitable organism for the study of experimental hæmoglobinuria is found in the bacillus megatherium, which, when grown in suitable media, gives rise to the formation of products which are very powerfully hæmolytic for the corpuscles of certain animals without causing death or serious illness from other pathogenic effects.

The hæmolytic action of the bacillus was first observed in the course of some experiments with a sample of papain in powder. It was found that the powder contained a strongly hæmolytic bacillus which on isolation proved to be the bacillus megatherium. A culture of the same bacillus was obtained from hay infusion, and these two races, together with one of the bacillus megatherium (De Bary) obtained from Kral of Prague were used in the following experiments. These three, though showing slight cultural differences, appear to be all races of the same bacillus. Parallel experiments were done with the three races, which were grown in alkaline broth in Erlenmeyer flasks at 37° C., and the hæmolytic power of the cultures was tested daily on a 5 per cent. suspension of guinea-pigs' washed corpuscles in 0.75 per cent. saline.

*Formation of the hæmolysin.*—The formation of the hæmolysin, which is in the main extra-bacillary, begins

under these circumstances between the second and third days, the amount rapidly rising to a maximum on the sixth or seventh day; after this it slowly decreases. The temperature exercises an important action, and so far the best results have been obtained at from 35° to 37° C. Oxygen is essential, and though some growth takes place anaerobically there is no formation of hæmolyisin, hence a much stronger lysin was obtained by growing the bacillus in shallow layers of broth in Erlenmeyer flasks than in test tubes.

A somewhat high degree of alkalinity of the medium appears to favour the production of the lysin, and the best results were obtained with ordinary peptone beef bouillon, which was made just alkaline to litmus, and then normal caustic soda was added in the proportion of seven cubic centimetres per litre. Parallel experiments were made by growing the same bacillus (1) in six flasks of broth made just alkaline to litmus; and (2) in six flasks of the same broth with the addition of seven cubic centimetres of normal caustic soda per litre. After nine days in the incubator the cultures were filtered through a Pasteur-Chamberland filter and tested on guinea-pigs' corpuscles, with the result that the filtrate in the first case hæmolyzed six times its volume, and the more alkaline filtrate 40 times its volume of the suspension, showing that the formation of the lysin was approximately seven times as great in the highly alkaline broth.

*Action of the lysin on the corpuscles of various animals.*—The red blood corpuscles of different species show a very great difference in the extent to which they are affected by the lysin, those of the guinea-pig being found the most sensitive of the corpuscles tried, one cubic centimetre of the filtered culture completely hæmolyzing about 50 cubic centimetres of a 5 per cent. suspension of these corpuscles in an hour at 37° C. The corpuscles of man and of the monkey are also highly sensitive. The corpuscles of the sheep, goat, pig, and bullock are moderately sensitive, those of the dog, rat, rabbit, fowl, and sparrow are very slightly affected, and those of the donkey and horse are practically unaffected.

*Nature of the lysin.*—Megatheriolysin resembles the toxins of diphtheria and tetanus in being mainly extra-bacillary, even young cultures filtered through a Pasteur-Chamberland filter being strongly hæmolytic. It is very unstable at ordinary temperatures, but much less so than tetanolyysin according to Madsen's<sup>5</sup> description of the latter. At 0° C. it is comparatively stable. A filtered culture kept in the ice-safes for 14 days was found to be almost unaltered, but one kept at about 20° C. for three weeks had gone down to one-eighth of its original strength. Heating to 56° C. for 30 minutes completely destroys the hæmolytic action of filtered cultures. Heating for five minutes at 100° C. does not entirely destroy the action of unfiltered cultures but very nearly so.

*Existence of an anti-body in normal serum.*—The anti-hæmolytic action of normal serum towards a bacterial hæmolyisin was first pointed out by Ehrlich<sup>6</sup> in the case of tetanolyysin, and later by Kraus and Clairmont<sup>7</sup> and Neisser and Wechsberg<sup>8</sup> for other bacterial lysins. In the case of megatheriolysin various normal sera exercise a considerable anti-hæmolytic action, both towards the corresponding corpuscles and also towards those of other animals; thus normal human serum protects human corpuscles against the lysin; the sera of the sheep and pig are strongly anti-hæmolytic towards their own corpuscles; donkey's serum has a marked action in protecting the corpuscles of the guinea-pig against the lysin, and this anti-hæmolytic power is increased by heating the serum for half an hour at from 63° to 65° C. No change takes place on heating for the same time at 60° C. Thus in one experiment it was found that a tube containing two cubic centimetres of 5 per cent. suspension of guinea-pigs' corpuscles required 0.05 cubic centimetre of the filtered culture for complete hæmolysis. If, however, 0.2 cubic centimetre of normal donkey's serum was added to the suspension 0.50 cubic centimetre—i.e., ten times as much—of the filtered culture was necessary, and if the donkey's serum had been previously heated to 64° C. for half an hour 0.90 cubic centimetre was required, so that the anti-hæmolytic action of the serum had been almost doubled by heating. The same phenomenon is observed in the case of sheep's serum and

also of horse's serum, though in the latter case it is not so marked.

It is not easy to see any explanation of this increase in the anti-hæmolytic action of normal sera on heating, and it is possible that it is merely a physical effect depending on an alteration of the osmotic conditions, as the temperature of heating is so near the coagulation-point that the sera are quite viscid.

*Immunisation of animals.*—The subcutaneous injection of filtered cultures of the bacillus in guinea-pigs gives rise to a large local swelling with subsequent necrosis, and after several injections the serum of the animal acquires powerful anti-hæmolytic properties; but the guinea-pig is not a convenient animal for the production of an anti-serum, both on account of its small size and the tendency to local necroses. These necroses do not occur in the goat and the injections appear to cause very slight inconvenience in this animal. Two goats were immunised with the filtered cultures, beginning with one cubic centimetre subcutaneously and gradually increasing the doses up to 100 cubic centimetres. 10 days after the last injection the animals were bled and the serum was tested. In both cases it was found to be very strongly anti-hæmolytic. In one case one cubic centimetre of the serum completely neutralised 17 cubic centimetres of a filtered culture of the bacillus, this amount of the particular culture being enough to cause the complete hæmolysis of 1700 cubic centimetres of a 5 per cent. suspension of guinea-pigs' corpuscles in three hours at 37° C. The animal from which this serum was obtained was immunised with cultures of the bacillus obtained from hay infusion, and its serum was found to neutralise the lysins formed by each of the three races of the bacillus used; thus confirming the view that these three bacilli—in spite of slight cultural differences—were all races of the bacillus megatherium. Having obtained a strongly anti-hæmolytic serum, the constitution of the hæmolyisin was investigated by Ehrlich's method of partial neutralisation, and it was found that the results of these determinations when plotted yield "spectra" similar in character to those obtained in the case of diphtheria toxin, and more especially resembling those obtained by Madsen<sup>5</sup> for tetanolyysin.

*Action of the filtered cultures on animals.*—In guinea-pigs, when given subcutaneously, even in doses as large as 20 cubic centimetres, the filtered cultures do not produce death, but give rise to a large swelling with subsequent necrosis. The substance giving rise to this necrosis is destroyed by heating at 60° C. for half an hour, but does not appear to be

Table showing Results of Intravenous Injection of Filtered Cultures of the Bacillus Megatherium in Guinea-pigs.

No. of guinea-pig.	Dose of filtered culture injected intravenously.	Symptoms.	Result.
1	1 c.c. + 9 c.c. saline.	Five hours later, hæmoglobinuria. There were no red blood corpuscles in the urine.	Lived.
2	2 c.c. + 8 c.c. saline.	Five hours later, hæmoglobinuria. There were no red blood corpuscles in the urine.	Lived.
3	5 c.c. + 5 c.c. saline.	One and a half hours later, hæmoglobinuria. Crystals of hæmoglobin and a few blood corpuscles were found.	Lived.
4	8 c.c. + 2 c.c. saline.	Three hours later, hæmoglobinuria. Crystals of hæmoglobin and many blood corpuscles were present.	Lived.
5	10 c.c.	Two hours later, hæmoglobinuria; there were no blood corpuscles. Three and a half hours later, hæmoglobinuria; many blood corpuscles were present.	Died in 12 hours.
6	10 c.c.	Hæmoglobinuria, hæmaturia, and epistaxis.	Died in 10 hours.
7	10 c.c. + 0.5 c.c. anti-serum.	No symptoms.	Lived.
8	10 c.c. + 5 c.c. anti-serum.*	No symptoms.	Lived.

\* In this case the anti-serum was given subcutaneously and 24 hours before the intravenous injection of the filtered culture. The animals used were all approximately 500 grammes in weight.

<sup>5</sup> Zeitschrift für Hygiene, 1899, Band xxxii., p. 214.

<sup>6</sup> Berliner Klinische Wochenschrift, 1898.

<sup>7</sup> Wiener Klinische Wochenschrift, 1900.

<sup>8</sup> Loc. cit.

<sup>9</sup> Zeitschrift für Hygiene, 1899, Band xxxii.

neutralised, at any rate completely, by the serum of immunised animals.

The action of the filtered cultures when given intravenously in guinea-pigs is seen from the appended table. The results depend naturally upon the strength of the culture, but with the lysin used in these experiments a dose of 10 cubic centimetres intravenously was usually fatal; with smaller doses—from one cubic centimetre to eight cubic centimetres—the animals survived. A few hours after the injection the urine passed was a dark reddish-brown, often of the colour of stout, and gave the oxyhæmoglobin spectrum. If the urine was passed shortly after the injection, most commonly no red blood corpuscles were present, but these generally appeared later, and with large doses were found in the urine passed quite early. The hæmoglobin appears to be excreted mostly in the form of oxyhæmoglobin.

When mixed with a small amount of the anti-serum intravenous injections even of large quantities of the lysin produce no hæmoglobinuria, and if the animals receive a subcutaneous injection of the anti-serum the day before the intravenous injection of the lysin no hæmoglobinuria results, showing that the hæmolysis is brought about by a specific lysin and not by a simple chemical or physical action. In this connexion it is interesting to note that in the rabbit—the corpuscles of which are only very slightly affected by the lysin *in vitro*—large intravenous injections of the lysin produce no hæmoglobinuria.

The fact that a widely distributed organism, which has hitherto been regarded as practically non-pathogenic, is capable of forming products bringing about in susceptible animals such profound blood-changes is of the greatest interest, and although this bacillus may have no causal relation to any pathological condition in man or the lower animals, still the results obtained are suggestive in connexion with the pathology of such diseases as blackwater fever, paroxysmal hæmoglobinuria, and pernicious anæmia.

Harrow.

## MOVEABLE OR FLOATING KIDNEY A CAUSE OF ACUTE AND CHRONIC PAINFUL DYSPEPSIA,

WITH NOTES OF CASES.

BY ALEX. MACGREGOR, M.D. ABERD., M.R.C.P. LOND.,  
PHYSICIAN TO THE NORTH LONDON HOSPITAL FOR CONSUMPTION AND  
DISEASES OF THE CHEST.

MOVEABLE or floating kidney is by no means rare, yet it is frequently overlooked or apparently not suspected. If in the treatment of cases of chronic painful indigestion a systematic examination of the abdomen be made it not infrequently will be found, especially in women, that the cause of the dyspepsia is not in the stomach itself, but that the interference with the functions of that organ is due to the wanderings of a dislocated kidney. Except in those cases where the dislocation interferes with the functions of the kidney itself no symptom points directly to the nephropathosis. The kidney is not readily thought of as being the cause of an acute attack of jaundice with sickness and severe pain in the epigastrium, yet it has been known to give rise to such symptoms, and the first of the cases hereafter described is an example. Malignant disease of the stomach, too, has been suspected and diagnosed in not a few instances, as in Case 2, where further observation and examination proved a dislocated kidney to be the cause of the grave symptoms. The pain in the region of the pylorus, increased by food, the sickness, emaciation, and the icteric tint of the skin make the diagnosis of malignant disease, and especially in a patient aged about 40 years, a very natural one. Dr. Herbert Bramwell of Cheltenham recently published a most interesting case which ended fatally.<sup>1</sup> A post-mortem examination in this case proved the correctness of the diagnosis and added a valuable contribution to our knowledge of the altered condition of parts which gives rise to the symptoms. In Allbutt's System of Medicine<sup>2</sup> this altered condition of parts is fully described. There it is stated that bands of peritoneum produced by the dislocated kidney have been

found to cause dilatation of the stomach by mechanically obstructing the normal passage of the chyme. "Such bands may pass occasionally from the upper part of the duodenum, but they are more commonly attached to the middle or lower part of the descending portion in the position nearly opposite that at which the bile-duct enters. The drag of the peritoneum on the duodenum is probably the commonest cause of the temporary jaundice which often accompanies the gastric crisis and of the dilatation of the gall-bladder." In the light of this Case 1 is clear and so is Case 3, which is an exact parallel to the early stage of Dr. Bramwell's case, but fortunately in my patient a short rest in bed and the wearing of a suitable pad and bandage gave complete relief from the symptoms. In the majority of cases the prominent symptoms are indigestion, pain more or less constant, and almost always increased by food, flatulence, and constipation.

The frequency with which moveable kidney is met in women as compared with men is very striking and puts it beyond doubt that there must be a cause at work in women which rarely or never acts in the male. The cases which I have met with seem to me to prove that the most common and most likely cause is tight-lacing *plus* muscular effort, as, for example, in cycling. One patient whose symptoms suggested malignant disease of the stomach dated the onset of her illness from a 50-mile bicycle ride and another patient of excellent physique began to suffer from the characteristic symptoms immediately after a 12-mile ride over a hilly road against time. In the case of two other female patients falls in the hunting-field were given as the probable cause. One of those two cases is interesting from the fact that for years the patient suffered from indigestion and pain in the right ilio-lumbar region, and by several gynaecologists she had been treated for "something wrong with the ovary and womb," but without benefit. This patient's right kidney lay low down and forward in the lumbar region and could easily be pressed upwards almost to the gall-bladder. The symptoms in this case were always more severe just before, and usually during, the menstrual period. "The catamenial aggravation of the characteristic sensations has been pointed out by Becquet, Lancereaux, Sawyer, and Fourrier."<sup>3</sup> I was able to observe this in Case 1, where with the onset of a menstrual period the kidney became distinctly enlarged and there was a threatening of a return of the gastric crisis with jaundice which accompanied a previous period. In neurotic women the symptoms are often misleading and sensations are felt in parts far removed from the offending kidney. One nervous woman complained of pain in the stomach passing up through the chest to the throat accompanied by distressing "choking sensations and terrible feelings all over the body." Her organs seemed perfectly normal, but the right kidney was freely moveable. Another woman, neurotic and anæmic, complained of occasional loss of voice and choking sensations which she associated with pain in the stomach, and the latter symptom was always increased by food. At first the abdomen was not examined, but as no relief followed the usual medicinal treatment for dyspepsia an examination was made and both kidneys were found to be freely moveable. The thin flaccid abdominal walls made palpation easy, and the kidneys were easily grasped and could be moved over a wide area. An interesting case came under my care while writing these notes. The patient, an unmarried woman, aged 37 years, consulted me on Nov. 20th and gave me a long but clear and intelligent account of years of suffering from indigestion. Two years ago, owing to her inability to take food because of the pain and sickness which it caused, she became terribly emaciated and was sent to a home to undergo the Weir-Mitchell treatment. There she improved immensely, put on weight, and was afterwards able to take a sea voyage. During the voyage, however, the symptoms returned, but they were not so severe. She is now gradually getting back to the condition she was in before undergoing the Weir-Mitchell treatment. She "cannot touch beef or mutton and can take only very small quantities of the simplest food." She was told that she was neurotic (and she knows that she is), but she is "most anxious to be able to eat food like other people." Except for a slight cardiac peculiarity this patient's organs seem perfectly healthy, but the right kidney is dislocated and lies near the upper border of the iliac region and can be pressed up almost to the gall-bladder. Of course, it is impossible

<sup>1</sup> Brit. Med. Jour., Oct. 19th, 1901.

<sup>2</sup> Vol. iv., p. 346.

<sup>3</sup> Allbutt's System of Medicine, vol. iv., p. 343.

now to say that the dislocated kidney was the cause of the painful dyspepsia and the resulting emaciation for which she was treated two years ago, but I am more than inclined to think that that is the true explanation of the case. An equally interesting case is that of a young woman who suffered for years from dyspepsia, flatulence, constipation, and pain in the right side of the abdomen, always increased by food. In January, 1900, she was operated upon for appendicitis and was told that the "appendix was very bad." She consulted me 10 months after the operation and said that she still suffered much pain in the right ilio-lumbar region, that the pain was most severe from an hour to an hour and a half after a meal, and that there were obstinate constipation and distressing flatulence. Aperients and aids to digestion gave only slight and temporary relief and on this account when she consulted me again in January of this year I examined the abdomen and found the right kidney lying low down in the lumbar region.

Although nephroptosis is most frequently met with in thin women who have had children emaciation is not necessary for its production, nor is it uncommon in unmarried women. Several of my patients had more than an average amount of adipose tissue, and five recently under my care were unmarried.

I have only once met with the condition in a man. His right kidney was enlarged, floating, and, I believe, diseased. He gave a history of having been crushed against a wall by a horse. In less than two years I have seen 12 cases in women, but I shall add short notes of only a few of them.

CASE 1.—A married woman, aged 31 years, the mother of two children, was admitted to the North London Hospital for Consumption under my care on Sept. 23rd, 1901. On Oct. 18th, just before the onset of a menstrual period, she had an attack of acute pain in the right side of the abdomen. I saw her two days later and then the abdomen was somewhat distended, there was severe pain with tenderness in the epigastrium and to the right of the middle line. The pain was most acute at a point a little above and to the right of the umbilicus. The liver dulness was slightly increased and the rounded end of the distended gall-bladder was palpable, but deep palpation was impossible. On Oct. 28th the acute pain and tenderness were no longer felt and the jaundice was disappearing. Deep palpation was now possible and the right kidney, somewhat enlarged and freely moveable, was found lying well forward in the lumbar region. The patient stated that for six months she had "felt something move or fall in the right side when she turned from one side to the other in bed." At the beginning of the next period there was a return of the same symptoms, but they were much less severe. The kidney again seemed to enlarge somewhat and there was decided tenderness.

CASE 2.—A woman at about the middle period of life, married but having no children, was seen by me in consultation in July, 1900. For some time she had been suffering from pain after food, nausea, and loss of flesh, and there was an icteric tint in the skin—symptoms strongly suggestive of malignant disease of the stomach. Nothing abnormal was to be found in the stomach itself and all the other organs seemed to be perfectly healthy, but the right kidney was dislocated downwards and forwards. She attributed her illness to a trying 50-mile bicycle ride. No malignant disease of the stomach has since developed.

CASE 3.—A woman, aged 32 years, married and the mother of four children, came as an out-patient to the North London Hospital for Consumption on Oct. 8th, 1901. She was very depressed, weak, and emaciated, and there was an icteric tint in the skin. Her history was that she had suffered from painful dyspepsia for several years, but the symptoms were much worse since the birth of her last child 10 months ago, and for nearly two months before her visit to the hospital she had been unable to retain a single meal because of the pain which it caused. The emaciation and flaccid condition of the abdominal walls made palpation of the viscera easy. Nothing abnormal was detected in the stomach, but the right kidney was found to be dislocated: it could be easily grasped and moved over a wide area. No medicinal treatment was given, but she was kept in bed for a fortnight, and during that time there was no sickness, and little or no pain. At the end of the fortnight an L-shaped pad kept in place by a suitable bandage was applied and she was no longer confined to bed. There has been no sickness or pain since and the patient eats well and is rapidly putting on flesh.

CASE 4.—A married woman, aged 48 years, had suffered

more or less for 10 years. She complained of pain in the epigastrium and right hypochondrium and sickness after food, and she stated that the vomiting frequently came on at night. The bowels were alternately relaxed or constipated. Her right kidney was floating.

CASE 5.—A woman, aged 39 years, unmarried, consulted me in November, 1900. She had for years suffered from indigestion, distressing flatulence, constipation, and severe attacks of pain in the neighbourhood of the cardiac end of the stomach. The pain was frequently accompanied by much retching. The usual remedies gave only slight and temporary relief. Her left kidney was moveable and could easily be grasped and rolled between the fingers in bimanual examination. A pad and bandage gave little or no relief, probably because she was more than fairly stout.

CASE 6.—A woman, aged 39 years, married, and having one child, consulted me in February, 1901. She was distinctly neurotic, stout, and of excellent physique. She complained of vertigo, indigestion, and sudden attacks of pain in the stomach and right lumbar region. The appetite was good, the tongue was clean, and the bowels were relaxed. All the organs seemed healthy. As in the other cases, the remedies gave no relief except as regards the vertigo. The pain was first noticed four months previously after cycling up some stiff hills. Pain was felt in the abdomen on turning in bed. Owing to the amount of adipose tissue in the abdominal walls palpation was not easy, but the right kidney was made out to be freely moveable. After wearing a pad and bandage the pain was never so severe, but there was still aching.

It is unnecessary to give further details of individual cases. Those which I have given show, I think, that the symptoms and sensations are so characteristic that when in apparently ordinary cases of dyspepsia medicinal treatment fails, moveable or floating kidney ought to be suspected and examined for.

Unfortunately, the treatment by pad and bandage is not always satisfactory, but in none of my cases have I found it necessary to recommend operation. Yet Dr. Bramwell's case shows that nothing short of operation can under certain circumstances save the life of the patient.

The frequency with which nephroptosis is met in women is, as I have already remarked, striking; and no less striking in my experience is the fact that the right kidney is much more frequently dislocated than the left. In my last 12 cases the right kidney was dislocated in eight, the left in three, and both were dislocated in one patient. The explanation seems to me to lie in the fact that in muscular effort and severe straining the right kidney gets nipped at its upper end between the muscles of the back behind and by the liver and diaphragm in front and above, and is so pressed out of its normal position.

As regards the method of examination, either for the right or the left kidney, I find it best to stand at the patient's right side. The fingers of the left hand are placed in the lumbar region behind and pressed forwards, while the right hand pressing backwards is moved upwards and downwards over the side of the abdomen in front. In this way a dislocated kidney is more or less (according to the condition of the abdominal walls) readily detected and often slips from between the fingers with a distinct jerk.

Queen-street, W.

## CHRONIC EPISTAXIS (? VICARIOUS MENSTRUATION); CAUTERISATION OF THE NOSE, FOLLOWED BY GREAT GENERAL AND LOCAL IMPROVEMENT.

By BERNARD E. MYERS, M.D. EDIN., L.R.C.P. LOND.

THE following case has, I think, certain points of interest.

A young woman, aged 23 years, came to see me in June, 1901, on account of anæmia. She looked very ill and had an extremely anxious expression, whilst her cheeks, lips, and conjunctivæ were markedly pale. The patient complained of being in a constant state of hebetude and breathless on the least exertion, of pain and palpitation in the præcordial region and swelling of the ankles in the morning, also of stomach troubles, &c. She had suffered occasionally from rheumatism. Her family history was as

follows. Her father had had rheumatic fever and suffered for many years from epistaxis. One young sister, aged nine years, had also suffered from epistaxis since she was four years old. When my patient was five years of age she first bled from her nose, and this bleeding continued on and off till August of this year. The bleeding started without any warning, and until she was 13 years old it often occurred from seven to nine times daily, and she lost, according to her statement, at least a teaspoonful each time. The bleeding tended to be worse in summer. There were very few days during which she did not bleed once at any rate. She said that she was always ailing and had a perpetual frontal headache and a shocking memory. When she was 13 years old she first menstruated and then saw nothing again for five years. During this time she became generally worse and was very depressed in spirits. At 18 years of age she felt at what she called her periods great pain in the pelvic region and had a white discharge, but lost no blood per vaginam. This condition always lasted for one day and came on every three or four months until recently. From the age of 13 years she had also suffered (besides the ordinary daily small losses) from larger losses from the nose about every four weeks, amounting to one-half or two-thirds of a pint during the two days on which it lasted. This larger loss always occurred when she had the pelvic pains mentioned above, so that probably one may look upon this periodic bleeding as vicarious menstruation, though the pelvic pains did not occur every month. After all these larger hæmorrhages she fainted and was practically moribund for some hours. At the age of 17 years she was treated in a hospital for hæmoptysis and hæmatemesis, but I understand from her account that the amount of blood lost from the lungs or the stomach was never excessive.

In June, 1901, when I first saw her, she was suffering severely from secondary anæmia. There were also old quiescent mischief of the right apex of the lung and gastric ulcer. The usual signs and symptoms of anæmia were rather excessively marked, and I noted that on very gently touching the right or left side of the septum nasi in the usual area with cotton-wool on a probe there was an immediate oozing of blood. I gave her five grains of Bland's pill and 1/16th of a grain each of arsenic and strychnine thrice daily after meals; also a solution for douching the nose and an astringent dusting powder for the same purpose. She became a little better and there was a longer time between the bleedings, occasionally two weeks; but now when the epistaxis did start it was worse than ever, and on several occasions I had to put plugs of lint soaked in tincture of hamamelis into each nostril. Her appearance after these attacks was very ghastly and vision completely failed her for half an hour afterwards.

Early in August, after having exerted herself a little more than usual in attending on a sick friend, she suffered from the worst hæmorrhage that she had ever experienced, and for two days I was extremely anxious about her, and so I determined to treat both sides of the nose with the galvanocautery. There was a certain element of danger in doing this on account of the possibility of bringing on hæmoptysis or hæmatemesis again: still, it was quite worth chancing, as I was rather afraid of the possible effects of another severe bleeding suddenly coming on.

Since cauterisation was performed her improvement has been very great indeed, and though it is 18 weeks since it was done she has not had epistaxis once (in the ordinary way she would have had over 50 attacks in this period), whilst her complexion has a healthy rosy tint and her lips and conjunctivæ are for the first time of normal colour. She eats well, sleeps well, and can do her daily duties without fatigue—a condition quite new to her. The mucous membrane of her nose, which was formerly turgid with blood, has now almost the normal hue. She has had no trouble with her lungs, but a slight hæmatemesis occurred three weeks after cauterisation. Her heart beats more vigorously than hitherto. Since the epistaxis has stopped she has menstruated four times, at intervals of four weeks. Her periods last for three days, the pelvic pain is much less than formerly, and for the first time since she was 13 years old she has lost blood per vaginam at her menstrual periods. The amount of blood lost is increasing each period, though it is still only four ounces or so for the whole menstruation. Perhaps it is too soon yet to judge whether the present satisfactory state of things will last, but it has had a fair test, and at present I have seen no bad results whatever, and I would be inclined to cauterise again in a similar case to this one.

West Hampstead, N.W.

## A CASE ILLUSTRATING THE RELIEF OF SEVERE HEADACHE BY CORRECTION OF REFRACTION ERROR,

WITH REMARKS ALSO ON THE EFFECT OF CYCLING IN SOME CASES.

By SIMEON SNELL, F.R.C.S. EDIN.,

OPHTHALMIC SURGEON, ROYAL INFIRMARY, SHEFFIELD, AND PROFESSOR OF OPHTHALMOLOGY, UNIVERSITY COLLEGE, SHEFFIELD.

ON Oct. 17th, 1901, a man, aged 32 years, consulted me in consequence of long-continued and severe headaches. He gave the following account of himself. He had been a missionary in the East. The headaches commenced about February, 1899. He had had considerable stress of work at that time and he felt generally run down. The headaches began on the left side, to which also they were chiefly confined. They commenced sometimes about the eye, and at other times about the teeth. At first there was a sort of hot feeling which, after a time, gave place to more acute pain, apparently like neuralgia. If pain was not present there was a constant numb feeling all along the left side and the top of the head reaching to the occipital region. He described the feeling, which was constantly with him, as if one side of the head was boiling hot or in flames, and it took all the energy out of him. He consulted a medical man who tried his sight and declared that it was above normal. He designated the complaint "hemicrania" and put on the certificate "cause undiscovered." At this time, also, as it was suggested that his teeth were responsible for the headaches, two were extracted from the left upper jaw. As a result of the examination by the medical man just referred to he was invalided to another part of the country for six months, but during that period he was able to do some amount of work. The change and comparative rest were beneficial. He resumed regular work in the autumn of 1899, and continued it until the beginning of the present year (1901) when headaches of the same character as at the beginning of 1899 returned. He was treated by another medical man who regarded the headaches as rheumatic, but without avail. He was then sent back to England in February last, landing in this country in the middle of April. On his arrival he was brought before the medical board and ordered six months' rest. At the expiration of that time he presented himself before the board for re-examination. The headaches still remained, though somewhat modified in severity. The principal medical officer could not say what the cause was, and therefore advised him to consult an oculist. He then came to me.

At the time of his visit I found that he was still suffering considerably from headache, though apparently not so badly as before. The numb feeling was constant and there were exacerbations of more acute pain. He thought that exertion rendered the headache worse, but he was unable to use his eyes with comfort and he himself considered that they had a good deal to do with his suffering. On examination I found vision in each eye was  $\frac{5}{6}$  and that spherical + glasses rendered it worse. Both eyes were placed under the action of homatropine and cocaine and then in each eye vision =  $\frac{5}{6}$ , or with + 5D. cyl.  $\frac{5}{6}$ , axis horizontal. The muscle balance appeared to be normal. He was accordingly ordered these cylinders for general use. A week later he returned to me and reported himself as being greatly relieved, better, indeed, than he had been for a very considerable time. Whilst wearing the glasses the numb feeling in the head had disappeared, but it came back again if he left them off. He mentioned, however, an interesting fact that two days previously, after a bicycle ride, the pain in the head had returned and he was anxious to know whether cycling would be likely to be injurious. He had cycled a good deal when in the East, and he thought that it tended to aggravate the pains in his head. I explained to him the way in which I thought that it might do this. He was, I ascertained, in the habit of leaning forward and, therefore, on looking straight in front of him he would necessarily be using and straining the elevator muscles. This would cause discomfort just in the same

way that "Academy" or "sightseers" headache is occasioned by looking at pictures hung above the line or by the more prolonged use of the elevators nystagmus in miners is produced. On calling on me later he expressed himself as so considerably relieved that he was anxious to return to work and therefore desired my permission to accept a curacy in the south of England. He was able to read with much greater comfort than had been the case for a considerable time. He informed me also that he was satisfied as to the correctness of what I had told him about the strain caused to the elevator muscles in cycling, because, as a test, he had placed and kept his eyes in the position I had indicated and it had soon occasioned similar discomfort. I saw the patient again on Nov. 22nd. He expressed himself as better and more fit for full work than he had been at any time since he began his labours in the East. He was able to read with comfort for long periods, and felt confident of being able to fulfil his clerical duties which he was to enter upon the next day.

Instances of headache occasioned by errors of refraction are very frequent and are met with daily in one's practice. The relation between ocular conditions and headache has become well recognised by the profession, and the number of cases coming before one's notice in which the causal relation between the two has in the first instance been suggested by the family medical practitioner are always on the increase. There would, therefore, be nothing in an ordinary case worthy of bringing under notice. I merely mention this instance because the headache was severe and long-continued and the relief occasioned by correcting the ocular defect was speedy and well-marked. It may be stated that the error of refraction met with in these cases is often of a low degree; especially is this so with regard to astigmatism. In the present instance the astigmatism was only half a dioptre, but there was the additional factor that the axis of astigmatism was contrary to the rule—that is to say, the axis of the + cylinder was required horizontal instead of vertical. In the case related the muscle balance was normal, but in all such instances it is desirable to examine the muscles, for it has often happened in my experience that they are at fault, and the use of prisms, alone or in combination with the correcting glasses, has been of distinct benefit.

Another point worthy of remark is the relation of cycling to headache or discomfort in the eyes. If the cyclist sits upright and does not lean forward on the handle-bars he will look straight in front of him and the direction of his gaze will be rather below than above the horizontal line. My observations in miners, compositors, platelayers, and many other occupations show that prolonged use of the elevators tends to produce nystagmus or ocular discomfort. Especially in miners, nystagmus is the outcome of this continued strain upon the elevators. The same is met with in other trades, but there are many instances in which only discomfort and aching of the eyes are complained of. A like remark applies to visitors to the Academy or other picture galleries in whom in consequence of the eyes being directed above the horizontal line discomfort is occasioned, and thereby many sightseers suffer from what has been described as "Academy" or "sightseers" headache. I am satisfied that this is, in many instances, the true explanation of this form of headache. Turn the eyes below the horizontal line and even prolonged effort does not produce discomfort; on the other hand, turn the gaze above the horizontal line and discomfort results. I have observed instances of this in cyclists who have been in the habit of stooping and leaning on the handle-bars. It follows, as they have to look forward, that their eyes must be directed above the horizontal line. This remark, of course, is much less true in many cases than in others. In the one I have related a return of the headache resulted from a rather long cycle ride. As already stated, on questioning the patient, it was found that he was in the habit of stooping and leaning on the handle-bars and looking in the direction I have suggested as occasioning the weariness of the elevators and consequent headache. The accuracy of this observation he was able to endorse from tests which he made himself. I mention this particularly because I think that it is an explanation of the headache or eyache sometimes complained of by cyclists, and the cause once recognised admits of easy remedy.

Sheffield.

At a Chapter-General of the Order of the Hospital of St. John of Jerusalem held on Nov. 26th Mr. J. M. Carvell, M.R.C.S. Eng., L.S.A., was selected for enrolment as an Honorary Associate.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### NOTES ON SOME SKIN LESIONS.

BY EDWARD C. B. IBOTSON, L.S.A.

*Epidemic acne varioliformis.*—A healthy man, aged 20 years, consulted me on account of an extensive eruption which had come out on his skin in two days' time. There was no history of taking any drug and he had no syphilis past or present. He amused himself with photography and took his own portrait for me, showing, though imperfectly, the skin lesion. He informed me that he had noticed an exactly similar eruption to his own on three or four other young men in the works at which he was employed. The lesion commenced as a flat red papule and the size of the papules varied from one-third to a quarter of an inch in diameter. On the papule a minute vesicle next appeared containing clear fluid. I regret not having obtained some of this fluid for bacteriological examination. When the vesicle burst it left a sharply defined small pit behind. As regards the distribution of the lesions they were most copious on the forehead, next on the cheeks, next on the chest, and finally there were a very few papules on the arms and legs. I did not notice vesicles on the arms or legs. The man felt somewhat languid but was otherwise in good health. I prescribed five-minim doses of Fowler's solution after food, one-tenth of a grain of calcium sulphide in a pill thrice daily, and locally Hutchinson's paint—namely, equal parts of liquor carbonis detergens, rectified spirit, and liquor plumbi subacetatis. Under this treatment there has been marked and steady improvement.

Dr. Sabouraud has recently found the lesions of acne varioliformis to contain the golden staphylococcus (*staphylococcus pyogenes aureus*). Is it not possible that, this organism being somehow present on a towel, these young men may have inoculated themselves with the germ by using the same towel to wipe their faces and so rubbed in the germs and thus produced this small epidemic? Had he been a hospital patient I should undoubtedly have restricted myself to local treatment only, as I think it doubtful whether the internal treatment should be regarded as the beneficial agent in his case. Morris praises iron and cod-liver oil and says that the duration of these cases may be long. It is noteworthy that this case made rapid improvement; also that the age is unusual, as most of these cases have occurred after 40 years of age. Theoretically one would suppose that the pyococci are allowed to develop owing to defective phagocytosis, and hence also the boils and carbuncles that occur in association with albuminuria and diabetes. Iron undoubtedly will improve the percentages of hæmoglobin and red cells, but I do not know whether the leucocytes have ever been seen to increase in number with iron. Arsenic is given frequently in leucocythæmia, presumably to diminish the number of leucocytes, and therefore theoretically one would have imagined arsenic to be a friend to pyococcal infection, whereas it has proved beneficial in this case, and, moreover, it has been shown by Mr. Hutchinson to be a specific in pemphigus.

*Non-specific and specific pemphigus neonatorum.*—I have lately seen a bullous eruption in a newly-born infant which appeared to me to be secondary to a pyococcus infection of the conjunctiva. The mother had a yellow discharge throughout pregnancy and a creamy discharge appeared on the child's conjunctiva on the second day after delivery. The pus contained staphylococci. There was no history of gonorrhœa in the father. Bullæ appeared on the chin first, about as large as a threepenny-piece—viz., one-third of an inch in diameter. When these bullæ ruptured a clear yellowish serum escaped and a flat greyish-yellow circular crust remained. The eruption invaded the cheeks, scalp, neck, chest, and hands. One bulla on the chest reached the size of a halfpenny. The legs and feet were not affected. There were none of the signs of syphilis. The case appeared to be one of those described by Crocker as non-syphilitic pemphigus neonatorum. It yielded to the following treatment. For the conjunctivæ a wash of perchloride of mercury (1 in 1000); to the skin a dusting

powder of zinc oleate, boric acid, starch, and thymol, and theunction of weak ammonio-chloride of mercury ointment.

I have had under observation a true syphilitic pemphigus neonatorum—a female child, 20 months old, of foreign parents. The bullæ were numerous, deep-seated, and dark in colour. There was a distinct history of syphilis at an earlier age. The smell was very strong. The interesting point is that the palms and soles were not affected in the least. Treated with mercury and chalk, one grain three times a day, this child has completely recovered and is fat and strong.

Ashchurch-grove, W.

#### CASE OF SPONTANEOUS RUPTURE OF THE BOWEL.

BY T. CARWARDINE, M.S. LOND., F.R.C.S. ENG.

RUPTURE of the intestine from its own muscular action must be a rare event. It occurred, however, in a case of rectal cancer which was under my care in the Bristol Royal Infirmary.

The patient, a man, aged 50 years, was sent to me from Bridgwater in September, 1901, complaining of difficulty and straining in the passage of his motions, which were chiefly of a soft or liquid character. He looked well, and his abdomen was soft and lax. He was found to have an annular carcinomatous stricture of the rectum some two inches from the anus, the lumen of which would just admit the forefinger. It was intended to perform colostomy, and the patient was kept in bed for some days. Preparatory to the operation he was given a colocynth pill and he went to the closet twice the same night. The next morning he was observed to be rather cold and seemed in a good deal of pain. At 11.30 A.M. he "got a fearful spasm," as the nurse expressed it. The abdomen was hard and distended. He was cold, livid, and collapsed, and remained so till the early afternoon, when he died in great pain. At the necropsy the peritoneum was found to be full of soft, liquid feces; and in the sigmoid flexure, some six inches from the stricture, there was a rent about one and a half inches long, having a longitudinal direction and situated opposite to the mesenteric attachment. Its edges were clean-cut and there was no sign of ulceration or inflammation in the bowel around. The intestine had evidently ruptured as a result of muscular action, although there was no complete obstruction. The appearances were strikingly different from those seen when an ulcer, resulting from obstruction, perforates.

Bristol.

### A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

#### ST. GEORGE'S HOSPITAL.

A CASE OF ACUTE PARALYSIS CLOSELY RESEMBLING  
LANDRY'S PARALYSIS (SO-CALLED); RECOVERY.

(Under the care of Dr. ISAMBARD OWEN.)

It can hardly be doubted that under the name of Landry's paralysis many cases have been reported which are not of the same essential nature as those originally described by Landry. Although we know nothing definite of the etiology of these cases, yet there can be but little doubt that they are toxic in origin. In the following case there is one point mentioned in the account of the condition on admission to hospital which may perhaps suggest the origin of the disease. It is stated that the gums were swollen and inflamed and that pus exuded from their margins. It has recently been suggested that several obscure diseases are due to the absorption of toxins from suppuration in the mouth, and it is at least possible that in this case also the suppuration around the teeth may have had something to do with the

origin of the disease. For the notes of the case we are indebted to Dr. T. R. C. Whipham, medical registrar.

On Jan. 19th, 1901, a bricklayer, age 24 years, was admitted into St. George's Hospital under the care of Dr. Isambard Owen with a history of having been seized about eight weeks previously with pain in the head and sickness one morning after breakfast. No further symptoms developed till nine days before admission when he noticed "tingling pains" and loss of strength in the arms. On the following day he experienced pains in the calves of the legs on going up and down stairs. On Jan. 12th he vomited soon after drinking a glass of beer and gave up work owing to increasing weakness and difficulty in walking, the latter symptom being due to loss of power in the knees and not to any alteration in the gait. Prior to the onset of his illness the patient had been employed in building a tall chimney in which for the purpose of obtaining light several oil lamps were kept constantly burning, and from these very offensive fumes emanated. Subsequently to relinquishing work the general weakness became more marked, and on the 16th he was unable to walk, though he could maintain an erect position without support. At this time he was suffering from very severe headache in the frontal and occipital regions, especially at night and in the early morning, and he stated that everything which he ate tasted like mutton fat, that his mouth was "stiff" and swallowing difficult, and that water used for the purpose of washing caused a sensation of "pins and needles" down his back. He was taken to the hospital in a cab on the 19th, being then unable to stand. He had had no shooting pains, loss of sensation, or impairment of vision, and he denied having taken any drugs just previously to the onset of his symptoms. The amount of alcohol which he had consumed had been strictly moderate, being limited usually to one pint of beer a day, which was of no particular kind. No trace of arsenic was found in the urine, and nothing in the history of the patient suggested poisoning by that metal. Syphilis was denied, and there were no signs or history pointing to that disease. The bowels had acted regularly and his appetite was fair. Both parents died from cancer; otherwise the family history was good and the patient himself had had no previous illness of any importance.

The patient was a fair-complexioned, well-built man. There was no particular tenderness in the head. The teeth were in a very carious state and the gums were swollen and inflamed and exuding from their margins pus which yielded a short streptococcus on cultivation. The tongue could not be protruded far and was dirty and pushed slightly to the left side, the fauces were congested, and a copious secretion of very viscid mucus was continually being ejected from the mouth, but did not dribble away. There was slight, though distinct, paralysis of the left side of the face. In the upper extremities there was slight general wasting of the muscles from the hands to the deltoid and scapular regions, with considerable loss of power, especially in the right. When on his back the patient was unable to move either arm as a whole from off the bed. The legs when extended were almost powerless, though on passive flexion of the thighs the legs could be flexed and extended at the knee with some little force. The muscles were flabby, but were not markedly wasted. The muscles of the trunk were weak, the patient being unable to sit up in bed unless the legs were allowed to hang over the edge. There was no reaction of degeneration. The spinal column showed no abnormality and all the joints moved freely. The eyes and ocular muscles were normal in every respect, and there were no ophthalmoscopic changes. There was no impairment in any of the special senses beyond a slight "thickness" in the speech due to the facial paralysis and an oily taste with the food. Sensation was perfect everywhere to tactile, painful, and thermal impressions. The reflexes, both superficial and deep, were absent with the exception of the upper abdominal which was present to a slight degree. There were no cutaneous trophic changes and the sphincters were normal. The viscera were healthy and the urine was free from albumin. The temperature was normal.

For the first few days after admission the condition of the patient became worse. There was a further loss of power in the left arm with a "tightness" across the chest and aching in the hands. The secretion of saliva was increased and coryza appeared in the eyes. He vomited on several occasions and experienced slight difficulty in swallowing his food though there was no regurgitation through the nose. The facial paralysis became more marked and severe

shooting pains radiated from the occiput to the forehead. Tingling pains occurred in the legs when they were washed, and some paralysis of the diaphragm was observed. At the end of a week the patient was brighter in himself though the power in the lower extremities was still further decreased, and after a transient improvement in the face the paralysis again became more marked and movement in the right facial muscles was impaired. The headache and pain, however, had disappeared and the secretion of saliva was less. There was no coryza, bad taste in the mouth, or difficulty in swallowing. By the 30th the power in all four extremities was even more diminished. There were tenderness in the calves and some loss of tactile sensation, while the occipital pains had returned with sensations of giddiness. Sharp aching pains were also experienced in the legs and shoulders, which were relieved by the position of the limbs being changed. The paralysis of the diaphragm, however, had disappeared. He vomited on this day for the last time during his illness. Slight epistaxis followed, and on Feb. 2nd the patient complained of stiffness in the mouth and jaws, causing the food to accumulate in the cheeks; there was, however, no difficulty in swallowing or perversion of taste. The "stiffness" was apparently due to the facial paralysis, which by this time was marked on the right side, though scarcely so pronounced as on the left. From this point the patient began to improve, and on the following day there was more power in the arms and legs, the headache and giddiness were less pronounced, and there was no salivation to speak of. The facial paralysis on the right side soon disappeared and the extremities gradually regained their strength, the power in the arms returning before that in the legs. The return of power in the arms was preceded by a sensation of tingling and cramp similar, the patient stated, to the feelings experienced with the loss of strength at the beginning of his illness. The trunk muscles became more powerful, and on the 6th the sensation was noted as "perfect." The upper abdominal reflex, however, was the only one present. Some little pain at this time was caused by weakness of the left peronei muscles and dropping of the left foot, a sign which was present to a slighter degree in the other leg. No reaction of degeneration was observed. By the 26th the arms had regained their full strength, though numbness was complained of in the hands, and the foot-drop had disappeared. The abdominal, scrotal, and plantar reflexes were all present, but the knee-jerks were in abeyance. On March 1st the patient could walk without a stick and the face was practically devoid of any paralysis. The electrical reactions were tested for the last time on the 9th when it was found that although the arm muscles reacted well to faradism those in the legs scarcely did so at all. The reaction of degeneration, however, was not present with the exception of a small tract in the left peroneal region, in which K.C.C. was less than A.C.C. The patient went for a time to the convalescent hospital at Wimbledon, and was finally discharged on the 20th strong and well, though even by that time there was not the slightest sign of either knee-jerk. The bladder and rectum throughout were normal and there was no rise of temperature. No active medicinal treatment was employed during the first month, but subsequently the patient was ordered massage and a bitter tonic containing strychnine.

*Remarks by Dr. WHIPHAM.*—"Landry's paralysis" is a rare disease, even if it be considered to include the various conditions that have been described under that head. It is advisable, however, to restrict the term "Landry's paralysis" to cases resembling that described by Landry himself, in which the chief symptoms consisted of initial subjective sensory changes followed by a rapid centripetal paralysis involving successively the legs, arms, and trunk, with perhaps a late affection of the muscles of the face, the cause being either of central origin, inasmuch as the electrical reactions were unaltered (no recognisable change, however, was found in the spinal cord after death) or due to some toxic condition of the blood.

The case detailed above conforms in many respects with Landry's classical description. The premonitory symptoms, if such they may be called, were slight and consisted merely of an attack of headache and vomiting some two months prior to the acute onset, which began with a tingling sensation and loss of power, in the arms, however, at first, and not in the lower extremities. On this point the patient was very definite, asserting that he first experienced difficulty in raising his arms from one rung to another while ascending

a ladder. The legs, it may be noted, were distinctly involved by the following day, and at the time of admission the muscles of the trunk and face were also implicated. With regard to the subjective sensations a curious point was observed during the stage of recovery, sensations being then experienced in the arms similar to those which occurred with the loss of power. Objective sensation, which was carefully tested, was found to be unimpaired with the exception of a transient diminution in acuteness 20 days after the onset of the symptoms and some numbness in the hands during convalescence. As in about half the cases of typical Landry's paralysis the muscles supplied by the cranial motor nerves were implicated. With regard to the nutrition of the muscles the wasting was at the most but slight, though the muscles themselves were flabby. The electrical reactions were tested on five separate occasions, and it was not until a few days before the patient left for the convalescent hospital that loss of reaction to the interrupted current was observed. This occurred in both legs, though only in one small tract was there any true reaction of degeneration.

The etiology of the case is obscure. There was no history of alcoholic excess or of exposure, and no acute illness preceded its development; moreover, there was no reason to suppose that the patient had suffered from syphilis. One is therefore constrained to believe that it must have been due to some indefinite toxic condition arising perhaps from the unsavoury surroundings in which he had worked, as the patient himself all along imagined. To Dr. Isambard Owen my thanks are due for permission to publish the notes of this interesting case.

## Medical Societies.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

#### *Modern Methods of Vaccination and their Scientific Basis.*

A MEETING of this society was held on Dec. 10th. Dr. SYDNEY RINGER, F.R.S., in the absence of the President, being in the chair.

Dr. S. MONCKTON COPEMAN read a paper on *Modern Methods of Vaccination and their Scientific Basis*. In dealing with the subject he began by giving a short history of the introduction of vaccination and of the various Acts of Parliament which had come into force. He said that the occurrence of certain fatal cases of erysipelas following on vaccination in the practice of the public vaccinator at Norwich had, when he was quite a boy, made a great impression on him and the remembrance of the unfortunate event caused him to turn his attention to the possibility of avoiding the accidental transference of erysipelas and other diseases from one child to another by the substitution of serum preparations of animal lymph for the arm-to-arm method. There was a common belief that calf lymph produced "worse arms" than the method of arm-to-arm vaccination, and culture plates inoculated from calf lymph showed a greater number of colonies of micro-organisms than when inoculated from lymph taken from the human arm. This, he had no doubt, was due to the greater difficulty in cleansing the skin of the calf as compared with that of a child. The opacity which occurred in stored lymph was due to the increase in the number of bacteria in the tube. He had been able to obtain inhibition of the growth of these organisms by mixing the lymph with 50 per cent. of pure glycerine in water, and further, he had been able to show by a series of plate cultivations that the number of bacteria steadily diminished, so that at the end of one month after the admixture no organisms were present on the culture medium. Not only did this method kill off all the usual contamination bacteria but it would also destroy those of tubercle and erysipelas, when these were added experimentally, in comparatively large quantities. Dr. Copeman then dealt with the preparation of the lymph under the following heads. 1. *Vaccination of the calf*.—Suitable animals had to be selected, from three to six months old; they were placed in the quarantine stable for a week, their general health was ascertained, and they were weighed and their temperatures were noted. The lower part of the abdomen was shaved, and after cleansing was inoculated with glycerinated calf lymph by numerous parallel linear incisions. 2. *Collection*

of the vaccine material.—This was taken 120 hours after inoculation. The vesicles and their contents were collected with a sterilised Volkmann's spoon, and in this way the vesicular pulp was removed without admixture with blood. The animal was then slaughtered and was examined by a veterinary surgeon and the lymph was not used until the animal in question had been certified to have been healthy. 3. *Glycerination of the vaccine material.*—The lymph pulp was triturated and mixed with six times its weight of a sterilised mixture of 50 per cent. pure glycerine in distilled water. 4. *Storage of emulsion.*—The emulsion was then placed in small test-tubes and put into an ice-chest, and week by week agar-agar plates were established from the emulsion with the result that the number of colonies was shown to diminish successively. At the end of a month the plate rarely showed any colonies. 5. *Use of the lymph at the animal vaccine establishment prior to distribution.*—Samples of the lymph were taken and children were vaccinated. The results of these vaccinations were recorded, and from the number and size of the vesicles an estimate was made as to the potency of the lymph. 6. *Transference of the glycerinated lymph to capillary tubes for distribution.*—The lymph was transferred to capillary tubes and sealed and stored in ice-chests ready for distribution. 7. *Recording the results of vaccinations by public vaccinators.*—Each public vaccinator had to record the number of the tube used, the number of persons vaccinated, the number of scarifications made, and the number of vesicles obtained. The success attending the use of this lymph in the first year showed a case success of 93 per cent. and an insertion success of 83 per cent., and at the present time it was no unusual experience for returns to show complete case and insertion successes. Dr. Copeman then dealt with the regulation as to the mode of vaccination, with the question as to what constituted efficient vaccination, and with the after-treatment of the arm. He said that he had removed the glycerine from the lymph in order that the lymph might dry more rapidly on the arm, but he did not think that the results were worth the trouble involved in the preparation of such lymph. Deaths directly attributed to vaccination in the year 1893 amounted to 59, rather more than one a week, whilst in the year 1899 only 25 deaths were attributed to vaccination. He then dealt with the relation of vaccinia to small-pox and stated his belief that the former was an attenuated form of the latter, and in support of this statement he quoted the following experiments. He said that it was well known that a calf could seldom be inoculated directly from a case of even confluent small-pox in the human subject, but that if in the first place a monkey were inoculated with lymph from such a case good vesicles developed. If lymph was taken from these vesicles and a calf was inoculated poor vesicles were produced; if a second calf was then inoculated from the first a good crop of vesicles was produced; and then if a child was inoculated with lymph from this calf a typical vaccinia was produced. A second series of experiments in which the lymph from a case of confluent small-pox was passed through two monkeys in succession and then through two calves before the child was vaccinated gave similar results to the experiments above described. Such evidence seemed strongly to support the view that vaccinia was an attenuated form of small-pox. Numerous lantern slides were shown in illustration of the paper.

Dr. LEONARD C. T. DOBSON said that in his experience small calves with thin skin and white hair gave as a rule the best results when vaccinated, but that the results varied very greatly according to the condition of the animal. In some cases when good vesicles had formed in four days, by the fifth they would have dried up and only scabs would remain. Lymph might become inert from various causes; if the glycerine were acid it would rapidly make the lymph inert; heat and light had the same result. There was unfortunately no test for the efficiency of the lymph except its result on the calf and on the child and lymph which produced good results in the calf might be inert in the human subject. He stated that it was possible to produce good vesiculation in the same individual with lymph obtained from different sources, and he said that he himself after having been successfully vaccinated with lymph from the Government laboratories shortly afterwards accidentally inoculated his finger with lymph from another source and a good vesicle resulted.

The discussion was adjourned.

## MEDICAL SOCIETY OF LONDON.

### *The Physical Disabilities for Tropical Life.—The Remote Effects of Tropical Life on Europeans.*

A MEETING of this society was held on Dec. 8th, Dr. W. H. ALLCHIN, the President, being in the chair.

The PRESIDENT referred to the loss which the society had sustained in the death of Sir William Mac Cormac, a former president of the society.

Surgeon-Lieutenant-Colonel ALEXANDER CROMBIE read a paper on the Measure of Physical Fitness for Life in the Tropics. He said that the facility with which the human organism was capable of adapting itself to altered conditions made it possible to maintain a high average of health and efficiency in the tropics for a time, and apart from the diseases which were prevalent in, but not essential to, these regions, such as malaria, dysentery, and cholera, climate, as climate, took a small place among the causes of increased sickness and mortality in hot climates. In the course of time, however, a perceptible deterioration of health began to show itself, especially in those who from defects of constitution or health were least fitted to adapt themselves to the altered physiological processes imposed by high temperatures. These modifications of physiological processes consisted in a lessened demand for thermogenesis and an increased demand for thermolysis, in order that the mean temperature of the body might be kept within physiological limits. The evidences of diminished thermogenesis were to be found in the exhalation of carbonic acid and watery vapour from the lungs and in the secretion of waste nitrogenous products by the kidneys. The amount of carbonic acid given off by the lungs was reduced in the tropics by about 20 per cent., that of watery vapour by about 5 per cent. The demand made upon the respiratory function was therefore lowered, the respirations were fewer in number, and the vascularity of the lungs was reduced by about 12 fluid ounces of blood, while their capacity was increased by about 30 cubic inches. In very high temperatures of 95° F. and over the respiratory exchange was, on the other hand, increased. The effect on health of the lessened demand on the respiratory function in ordinary tropical temperatures was a diminution in the frequency and severity of inflammatory diseases of the chest. People with weak lungs, therefore, did well in such climates. This applied, however, only to equable and moist climates, such as those of islands and near the sea. In inland regions where the extremes of temperature were great inflammatory diseases of the lungs, and especially pneumonia, were frequent and fatal, especially in those who were debilitated by disease. The evidences of lessened metabolism in hot climates found in the urine were low specific gravity, and the smaller quantity of urea, &c., excreted. Kidney disease was less frequent in Europeans, and albuminuria advanced more slowly to secondary changes and uremia. Albuminuria was, however, very common in natives over 40 years of age. As a result of the lowered metabolism of the nitrogenous elements of tissue and food, gout in its acute manifestations was rare, even when the hereditary tendency was strong, but in old residents who lived well the irregular forms of gout were common, especially those of eczema, acid dyspepsia, and congestive derangements of the liver, and high blood tension and headaches in younger men. Acute rheumatism was seldom met with among Europeans in the tropics. In India it occurred chiefly in the dry hot central regions, on the wet west coast, and especially in the hills. A tendency to rheumatic fever was therefore no bar to residence in tropical climates. Acute, or rather subacute, rheumatic fever was not infrequent among well-to-do natives in Lower Bengal, with all the usual cardiac and other complications. Osteo-arthritis was not of frequent occurrence, but did badly in the tropics. Thermolysis, the reduction of body temperature, was accomplished chiefly by increased activity of the sweat-glands and vascularity of the skin. In dry hot climates this increased perspiration evaporated as fast as it was formed; but not so in humid provinces like that of Lower Bengal. There the skin might feel cold and clammy while the temperature of the body was 104° F. The constant presence of moisture on the skin was favourable to the growth of all vegetable parasites, and its vascularity favoured all inflammatory and exudative skin diseases. Very few Europeans were for long free in such a climate from tinea circinata and prickly heat,

and from the ubiquitous presence of the streptococcus, boils were of great frequency, as were also carbuncles which in diabetics often attained enormous dimensions. Dry scaly eruptions, such as psoriasis, were, on the other hand, of great rarity, and might with advantage be sent to a moist tropical climate for treatment. When the temperature of the air rose to or above 95° F., and especially if it was at the same time saturated with moisture, great distress was felt by Europeans and natives alike. It was difficult to understand how the temperature of the body was maintained within physiological limits when the temperature of the atmosphere was many degrees above that of the body, so that there could be no radiation from the surface, and when the humidity was so great as to reduce evaporation to a minimum, and at the same time the unavoidable thermogenesis of tissue and food changes, which were alone capable of raising the temperature 10° or 15°, were necessarily going on. Obesity caused great suffering in ordinary conditions of tropical life on account of the disproportion between the possibilities of thermogenesis in a bulky man and the surface available for the cooling processes. Neurotics, whether the nerve weakness was hereditary or acquired, were also bad subjects for tropical life. There were two departments of Government service in India in which these results were particularly manifested—the Civil Service proper and the Forest Department. It must be clear that to enable a man to re-invigorate an exhausted nervous system, as well as to repair the dilapidations caused by disease, it was above all things necessary that he should have a faultless digestion and stable powers of absorbing nourishment. The man subject to dyspepsia, to "bilious" attacks, and to diarrhoea, either during the hot summer months or from chills at other seasons, should stay at home. If he was at the same time neurotic, as was often the case, he would, if he went to the tropics, sooner or later furnish an example of the very unmanageable association of neurasthenia with dilated stomach which was so frequent in emaciated Anglo-Indians. The great tendency to dilatation of the stomach in the tropics was probably to some extent determined by the habit of imbibing large quantities of fluid during meals. A perfect digestion was also necessary as a protection against microbic diseases which affected the intestinal canal, such as dysentery and cholera, and possibly typhoid fever. The question of phthisis was an important one. It might be laid down for practical guidance that, no matter how strong the hereditary predisposition, a man who landed in such a climate as that of Lower Bengal free from tubercle was little likely to become infected while residing there, but once the disease had started its progress was remarkably rapid. Syphilis could be treated just as successfully in the tropics as at home in its earlier manifestations, but the same debilitating causes which make the treatment of phthisis difficult in the tropics were all opposed to the satisfactory treatment of its later stages. Diabetes, like albuminuria, ran a slower and milder course in the tropics than in temperate climates, especially in patients after 40 years of age. This was especially true of natives, with whom it was very common in the classes corresponding to those who suffered from gout in this country—i.e., in those who lived well, who were of sedentary occupation, and who were engaged in mental labour. Diabetes was the gout of the native judicial department. After all the early attempts to cure diabetes by diet and drugs had failed, a patient who was the subject of a moderate seizure would, if he went to the tropics, probably do just as well as, if not better than, he would if he stayed at home.

Dr. JOHN ANDERSON, C.I.E., read a paper on the Remote Effects of Tropical Life on Europeans. He said that many diseases which had been attributed to heat were in reality due to defects in personal hygiene and habits of life, or an over-stimulating diet, or an excess of alcohol and tobacco. Moderation in such matters was necessary for the maintenance of health in warm climates. The physiological changes induced by heat were the raising of the body temperature nearly half a degree, the slowing of respiration, a slowing of the pulse-rate, and diminished secretion of urine. The nervous system was depressed, digestion was slowed, and nutrition was less active. The diseases that owed their origin directly to malaria were met with long after the sufferer had returned to Europe. These deferred manifestations of malaria were often of a very irregular type and symptoms frequently yielded surprisingly to treatment which, if regarded only from a clinical

standpoint and without a knowledge of the antecedents and medical history of the patients, might lead to an unduly grave diagnosis and cause needless anxiety. Of malarial neuralgias the most common were facial and hemicranial, brow ache, and intermittent headache, but sciatica, intercostal and abdominal pain, burning of the feet, and acute tenderness of the skin were often attributed to the same cause. Locomotor ataxy was seldom or never met with in the natives of India. Europeans, however, did so suffer, and since natives suffered from syphilis their practical immunity from locomotor ataxy suggested the doubt as to the correctness of the theory of the necessarily syphilitic origin of the disease. Serious conditions of the nervous system sometimes resulted from sunstroke; epilepsy, blindness, deafness, and dementia might occur. Affections of the motor nerves were less common. Apyrexial cachexia occurred and was marked by a progressive anæmia so severe that it closely resembled pernicious anæmia. The blood in these cases was diminished in quantity, the corpuscles, both red and white, were reduced in number, and the red were altered in colour, shape, and size, and there was a tendency to infarction, and not infrequently the gums were swollen and spongy. Abscess of the liver might show no evidence of its existence for years after the patient had returned to Europe. The difficulty of diagnosis in such cases was great, but the facts that the fever did not yield to quinine, that the plasmodium malarie could not be found, and that there was a history of dysentery would be greatly in favour of hepatic abscess. Dr. Anderson referred to statistics as to the relative frequency of dysentery in European and native troops, 25 per 1000 being the rate in the former and 38 per 1000 in the latter, but in the same year the mortality from abscess of the liver was 32 times greater in Europeans than in native soldiers. An attack of dysentery was the most common precursor of liver abscess. He suggested that the difference was accounted for by the difference in the diet and habits of the respective races—as the natives did not eat meat or take alcohol. Sprue, or psilosis, was another disease which would long remain latent, and his experience was that these cases tolerated fruit well and that it formed an important addition to the milk food.

Dr. G. THIN said that it was of considerable importance in selecting individuals fit for tropical life to take into consideration the relation of the body-weight to the height, for his experience had been that the tall, under-weighted man was extremely likely to break down within the first 10 years of tropical life. He referred to the so-called after-effects of malaria and said that in many of these cases the plasmodium could not be found in the blood, that quinine did them no good, and that the only mode of treatment was rest in bed. Many of these cases which he had observed had eventually been proved not to have been of malarious origin.

Mr. J. CANTLIE referred to the relation of dysentery to hepatic abscess. Many of these abscesses were situated above the liver and he believed that they were often due to chill.

Dr. LAURIE said that many diseases which were attributed to climate were in reality due to errors in diet and he gave striking instances of this fact.

Dr. ANDREW DUNCAN referred to tuberculous disease in India and said that much depended on the locality. He had seen some cases do very well. In the Punjab, however, patients did badly, and in Gourkas who became infected the disease ran a most rapid course. He was of the opinion that a man who had once been invalided home for dysentery should not again return to India, and he was of the same opinion with regard to patients who had suffered from sunstroke. Persons of a nervous temperament should not go to India, and he considered that no soldier should be sent out until he was 25 years of age, remarking in support of this statement that during the march from Cabul to Candahar it was the recently arrived drafts of young men who had to fall out.

## OBSTETRICAL SOCIETY OF LONDON.

*Pregnancy of Four and a Half Months complicated by Epithelioma of the Cervix Uteri.—Pernicious Vomiting in Pregnancy.—Exhibition of Cases and Specimens.*

A MEETING of this society was held on Dec. 4th, Dr. PETER HORROCKS, the President, being in the chair.

Dr. R. SANDERSON read a paper on a case of Pregnancy of Four and a Half Months complicated by Epithelioma of the

Cervix Uteri in which he had performed vagino-abdominal hysterectomy. Finding that the epithelioma was operable he removed the uterus and the growth by a combined vaginal and abdominal operation without previous induction of labour. The specimen and microscopic section of the growth were described and shown. He discussed the ethics and the treatment adopted under the following heads—(1) that where pregnancy and operable cancer of the cervix co-exist the life of the mother is alone to be considered; (2) that anterior to the fourth month of pregnancy vaginal hysterectomy is the orthodox treatment; (3) that after this period the alternative methods are (a) induction of labour followed by vaginal hysterectomy, and (b) hysterectomy, without induction of labour, by a combined vaginal and abdominal operation; and (4) that the latter of these alternatives, having regard to the improved statistics of abdominal hysterectomy, was in this case to be preferred.—Dr. W. W. H. TATE congratulated Dr. Sanderson on the successful result of his operation. He thought, however, that it was not necessary to have subjected the patient to the risk of a vagino-abdominal hysterectomy, and that the operation might have been more safely performed by the vaginal route alone. By making a longitudinal incision through the cervix and emptying the uterus of its contents it was possible to remove a uterus in which the pregnancy had advanced to the sixth month, if not later. Six years ago he (Dr. Tate) had treated a case of carcinoma of the cervix complicating a five months' pregnancy by the older method of inducing abortion and removing the uterus per vaginam 10 days later. Although the case was a favourable one for operation, the disease rapidly recurred.—Dr. J. H. DAUBER thought that time alone would decide whether the operation that had just been described afforded the patient a longer period of immunity from recurrence than the more usual method of procedure in these cases. That operation was the best which came nearest to effecting a real and permanent cure. He would like to know in three or five years' time if Dr. Sanderson's patient were alive and well, and he hoped that the society might be informed on that point. He himself had had a similar case under his care in 1898. He emptied the uterus and then waited for its involution, when he performed vaginal hysterectomy. Recurrence occurred within 18 months. This he considered unsatisfactory. The foetus was destroyed and the mother did not long survive.—Dr. W. S. A. GRIFFITH agreed that vaginal hysterectomy after emptying the uterus was at present the best operation, the mortality being very low and the prolongation of life in many cases being considerable.—Dr. AMAND J. M. ROUTH said that vaginal hysterectomy could be performed at a much later date than that of a four months' gestation. By incising the anterior uterine wall along its centre as it was pulled down into the vagina the contents could be readily evacuated. The uterus promptly retracted and its size became so materially diminished that its removal became easy by the vaginal route. The alternative procedure to this operation in such a case would be somewhat as follows: firstly, a temporary removal of the cervical growth by scissors, gouge, or cautery, treating the stump with pepsin dressings to digest any sloughs; secondly, induction of abortion; and thirdly, in a week's time, to allow some involution to take place, vaginal hysterectomy. In early pregnancies he much preferred the former plan. In every case the uterus should be emptied before removal per vaginam.—Dr. HERBERT R. SPENCER agreed that it was not necessary to resort to abdominal section in this case. In a recent paper by E. Altherthum, who had himself performed vaginal hysterectomy for cancer at the sixth month, a list of 18 cases was given in which the uterus was thus removed, all the patients recovering. Nevertheless there was a tendency at the present time to operate by the abdomen in these cases, not for the simple removal of the uterus as in Dr. Sanderson's case, but in order to remove the broad ligament and glands as widely as possible. This operation received support from the researches made in Professor Rosthorn's clinic which showed that 57.5 per cent. of cases of cancer of the cervix in the operable stage already had the glands infected, and therefore a vaginal operation would be useless from the point of view of cure. If these researches were confirmed they would considerably alter their views upon the treatment of cancer of the uterus. As far as he knew the results had not been good, but a sufficient time had not elapsed to allow them to judge of the chances of "cure." At the present

time he (Dr. Spencer) believed that in the case under discussion a better operation would have been high amputation with the cantery followed by removal of the ovum. He thought also that high amputation after induction of abortion was a good operation, if the growth was not in a septic condition. He had not had a case of early pregnancy complicated by cancer in an operable stage; but in three cases of cancer complicating labour he had amputated the cervix and part of the lower segment after delivery and the patients were now well after eight and a half, six, and five years. He did not know of such good results after any kind of hysterectomy for cancer complicating pregnancy.—The PRESIDENT agreed that it was nearly always justifiable to consider the mother alone when both she and the child could not be saved, though he thought that it might so happen that it would be justifiable to save the child. He could not help agreeing with those who advocated the vaginal route, and even where the uterus was too large, as when the child was viable, he advocated the induction of labour and then waiting until involution had proceeded far enough to allow of vaginal extirpation. Moreover, in the earlier states of pregnancy he considered it bad practice to try to drag an unemptied pregnant uterus through the opening made in the vaginal roof; it was far better to remove the contents, thereby reducing the bulk of the uterus to a minimum before extracting it. The removal of the cancerous mass first, leaving the uterus to be dealt with afterwards, had not been considered by Dr. Sanderson, but he agreed with Dr. Routh that it might in some cases be practised with advantage. In operating he used numerous short forceps, grasping very little tissue and removing them in 30 hours. In this way by the help of formalin douches offensive discharges following upon the operation were reduced to a minimum.—Dr. SANDERSON, in reply, recognised the justice of the criticisms in the debate on this case. He, however, found it difficult to understand why a combined hysterectomy should be a more severe operation than a vaginal or an abdominal one. Whether the cervix was circumcised from below or from above, as in Doyen's operation of abdominal hysterectomy could make little or no difference in the severity of the operation; and he believed that in the future, as abdominal methods improved, the abdominal or combined route would be preferred to the vaginal.

A short paper by Dr. J. P. MAXWELL of Changpoo, China, was then read, on two fatal cases of Pernicious Vomiting in Pregnancy.—This was discussed by the PRESIDENT.

A report of the sub-committee upon the President's specimen of Deciduoma Malignum was then received.

The following cases and specimens were shown:—

Dr. CUTHBERT H. J. LOCKYER: Two Septicæmic Uteri, with bacteriological investigations.

Dr. GRIFFITH: A Person of Uncertain Sex.

Dr. C. HUBERT ROBERTS: A case of Male Pseudo-Hermaphroditism.

Dr. AMAND ROUTH: Tubal Gestation where Rupture occurred during the Process of Tubal Abortion; Operation; Recovery.

Mr. H. S. STANNUS (introduced by Dr. TATE): A case of Orbital Tumour in a Hydrocephalic Foetus with Hydramnios.

The specimens were discussed by the PRESIDENT, Dr. G. F. BLACKER, Mr. A. C. BUTLER-SMYTHE, Dr. C. J. CULLINGWORTH, Dr. F. J. MCCANN, Dr. G. H. DRUMMOND ROBINSON, and Mr. J. H. TARGETT.

## LIVERPOOL MEDICAL INSTITUTION.

### *Exhibition of Cases.—A Series of Various Foreign Bodies.*

THE fourth meeting of the session of this society was held on Dec. 5th. Mr. EDGAR A. BROWNE, the President, being in the chair.

Mr. ROBERT JONES showed two cases of Congenital Elevation of the Scapula and stated that the condition was first described by Sprengel in 1890 and was known as "Sprengel's deformity." It consisted of an elevation of the scapula above the level of its fellow, accompanied by rotation, approximating the lower angle to the middle line, with limitation of scapular and humeral motion and sometimes with a slight curvature of the spine. The etiology of the affection was doubtful, but the probability was in favour of constrained foetal position. The first case was that of a boy, aged five years. The deformity was noticed when he was

vaccinated at the age of three months. The child was weird-looking, and he walked with a stoop and carried his head slightly bent to the left side. The left shoulder was raised two inches above the right. The distance from the inferior angle of the scapula to the spinous process of the vertebra was one and a half inches, on the right side it was two and a half inches. The left superior angle was three-quarters of an inch from the spine, the right being two inches. The scapula was therefore rotated. The length of the posterior border of the left scapula was four inches and that of the right five inches. From the left acromion to the episternal notch measured three and three-quarter inches; from the right four inches. The arms were of equal length. The dorsal spine was slightly curved, the convexity pointing backwards. There was a marked limitation in the movement of the scapula. Rotation of the arm was normal and abduction and adduction were limited. The trapezius muscle was contracted and tight. No exostosis could be felt and there was no articulation with rib or spinous process. The second case was that of a girl, aged seven years. The left scapula was displaced upwards, its lower angle touching the fifth rib, whereas the right touched the seventh rib. The movements of the shoulder were limited, so that the arm only came up to a right angle without movement of the scapula; she could not place the hand on the back of the neck. The right scapula, as shown by the radiogram, was normal in site and structure. The left or displaced bone had the axillary border shorter and more curved than that on the opposite side. The posterior border consisted of an upper portion, with which the extraneous portion of bone articulated, and a lower portion which was nearly straight. At the junction of these two portions there was a distinct projecting angle. The abnormal portion of bone was triangular, its outer border articulating with the upper portion of the posterior border of the scapula and its inner angle with a spinous process of the cervical vertebra. The extraneous portion of bone was removed in order to increase the range of scapular movement and the operation proved successful. Examined three years later the patient had improved much and she stood with shoulders square. There was a projection of the upper and inner angle of the scapula and this still interfered with the movement of placing the hand behind the back of the neck. The deformity was noticed a month after birth.

Mr. JONES also showed a case of Congenital Dislocation of the Shoulder and remarked on the literature, stating that cases described might be grouped into those due to faulty development and those due to injury during birth. The patient, aged nine years, showed the head of the humerus displaced backwards under the acromion and rotated inwards, so that the rounded portion was felt posteriorly. On pressing in front the inner margin of the glenoid cavity was felt. The condyles of the humerus pointed antero-posteriorly as the arm fell by the side. Measurements: the length of the posterior border of the left scapula, five inches; of the right, four and a half inches; from the angle of the scapula to the left acromion, six inches; to the right, five and a half inches; the posterior border of the left scapula, five and a quarter inches; of the right, four and a half inches; the arm from the apex of the right acromion to the external condyle, seven and three-quarter inches; and from the left acromion, nine inches. There was an elevation of the scapula and on fixing it the humerus could be slightly abducted, but not adducted. The range of scapular movement was increased, so that in spite of humeral fixation the boy could place his hand both behind his head and behind his back. A radiogram showed the glenoid to be thickened, not due to exostosis, but to the new socket formed on its posterior aspect. The head of the humerus was smaller than its fellow and the shaft was attenuated. Mr. Jones classed the case amongst the co-natal traumatic displacements, and as to treatment he trusted to stretching exercises.

Dr. W. B. WARRINGTON brought forward two cases. The first was a case of Acute Pneumonia characterised by long duration and an intermittent type of pyrexia, the crisis not occurring until the nineteenth day. This condition suggested that the case might be acute phthisis beginning with acute pneumonia. The symptoms were profuse sweating, progressive emaciation, and hæmorrhage. The subsequent course of the disease showed that a migrating pneumonia, possibly due to influenza, had to be dealt with. The second case was one of Acquired Hydrocephalus in a man, aged 35 years. The patient for eight months showed signs of cerebral tumour—viz., marked optic neuritis with headache and some vomiting, tremors in the tongue, slight

exophthalmos of one eye, and weakness in the legs. His mental faculties became markedly impaired and he gradually passed into a comatose condition. At the necropsy dilatation of the lateral ventricles was the only gross lesion found; the microscope showed inflammatory thickening of the ependyma of the fourth ventricle. The nature and diagnosis of such cases were briefly discussed.—Dr. T. R. GLYNN briefly remarked upon the second case and related a case similar to it in which there were marked optic neuritis, headache, reeling gait, staggers, &c., a diagnosis of cerebellar tumour being made. The patient was trephined over the cerebellum. No tumour was found, but some cerebro-spinal fluid escaped after opening the ventricle and the patient recovered. Such cases explained those instances of recovery from apparent cerebral tumour.—Mr. DAMER HARRISON related a similar case of relief of symptoms after opening the lateral ventricle.

Mr. RUSHTON PARKER read a note on a Series of Fourteen Foreign Bodies, various in nature and locality, and remarked that some foreign bodies were mere curiosities more or less amusing; others, while extraordinary, were curious from the little harm they did; while others, commonplace in themselves, might be the cause of danger and even of tragedy. The cases were with one exception from his own practice. 1. A wooden splinter over two and a half inches long and from a quarter to half an inch in width and thickness, embedded in the pterygo-maxillary region of a man, where it was broken off a bundle of swinging boards that struck him in the right lower eyelid. The object was thought to be loose bone and was withdrawn after a few weeks, early in 1878. 2. A piece of sailor's knife blade, two and a quarter inches long and three-quarters of an inch wide, broken off in the left pterygo-maxillary region of a man who was stabbed in New York. The object was removed 14 days later at the Liverpool Northern Hospital by Mr. Chauncey Puzey in 1879. 3. A gun-breech and a screw-bolt, forced by the bursting of a fowling-piece into the middle of the owner's face and lodging five years in the nose, which were removed through an incision under the upper lip on Dec. 20th, 1883. The objects weighed three and a half ounces and measured three inches by one and a half inches by one inch. 4. A piece of parasol rib, three inches long, broken off in a woman's forearm and removed after 12 days. 5 and 6. These were cases in which a bullet was displayed by radiography and removed from subcutaneous regions of the leg and hand respectively in boys. 7. Radiograms of a small bullet which was flattened against the lower end of the radius in a young man. When seen two days after the accident the wound was healed and the bullet was left alone. Five years later no inconvenience had been caused and the bullet was radiographed again. 8. Radiogram of a leaden pellet from an air-gun between the metacarpal bones. The substance was removed a fortnight later as it caused annoyance and apparently pressed on a nerve. 9. A photograph of a piece of red-rubber catheter over three inches long encrusted with phosphatic calculus which had been taken from the bladder of a man, aged 71 years. The calculus was crushed and evacuated and the catheter was removed by lithotrite. 10. A photograph of a silver tooth-plate measuring two inches by one and a quarter inches extracted from the pharynx of a man, aged 36 years, after nine hours. 11. A photograph of a tooth-plate, vulcanite and metal, with attachment hooks, measuring two inches by one inch by one inch, which had been swallowed and which was removed eight days later by œsophagotomy with success. 12. An iron staple one inch long and one inch wide which had been swallowed by a boy. A radiogram showed it to be lying in the pelvis three days later and it was passed per anum on the next day. 13. A piece of turned oak, seven inches by half an inch by three-quarters of an inch, known as a "knitting-sheath," which was removed from the rectum of a man, aged 70 years, after a fortnight. No harm resulted. 14. Radiograms of the ankle of a girl, aged 15 years, showing a piece of glass broken off a strip of window-glass one inch long, more than one-eighth of an inch wide, and less than one-eighth of an inch thick. The object had been there five years, causing slight but very persistent disability of the ankle-joint; it was removed with an end to all trouble. A radiogram was shown of the parts after removal of the glass.—Mr. DAMER HARRISON, Dr. W. ALEXANDER, Dr. C. A. HILL, and Professor H. BRIGGS related instances of other foreign bodies and commented upon some of Mr. Parker's series.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

*Axis-traction Forceps in Midwifery.—Resonance to Percussion over Ovarian Tumours.—Exhibition of Cases, Pathological Specimens, &c.*

A MEETING of this society was held on Dec. 6th, Dr. A. G. BARRS, the President, being in the chair.

Dr. J. B. HELLIER read a paper on the Use of Axis-traction Forceps in Midwifery. He briefly sketched the development of the midwifery forceps, demonstrating the need of the third or perineal curve. He described the points requisite for the construction of an efficient traction instrument and showed and criticised various patterns now on the market. He examined the objections urged against such instruments in several modern works on midwifery and alleged that the difficulty of application could be very easily overcome. It was quite a mistake to assert that in any way the prognosis to the child was less favourable than when ordinary forceps were employed. Axis-traction forceps were suitable for low cases as well as high. He believed that if anyone who had had experience of old patterns would use the axis-traction forceps sufficiently to become familiar with their application and would apply them in a few really difficult cases they would not again abandon their use.—Mr. C. J. WRIGHT, Dr. J. BRAITHWAITE, Dr. E. O. CROFT, and Mr. J. W. DRAPER took part in the discussion, and Dr. HELLIER replied.

Dr. E. O. CROFT read notes of cases illustrating Resonance to Percussion over Ovarian Tumours. He said that the chief conditions which might give rise to a resonant note over the situation of an ovarian tumour had been described thus: (1) by intracystic changes producing gas, such as decomposition of contents after tapping or suppuration associated with gas-forming bacilli; (2) by the entry of air into a cyst from a communication with the bowel produced by the breaking through of an adherent portion; and (3) by the displacement forwards of coils of intestine and their adhesion to the front of the tumour. The following illustrative cases were described. In the first case, that of a married woman, aged 27 years, the mother of one child who was born seven years previously, abdominal enlargement was noticed about 18 months before. She had "caught cold" during menstruation which was arrested. Three months afterwards a severe attack of peritonitis occurred. The tumour was then discovered and there were normal physical signs of an ovarian cyst of about the size of a child's head. The symptoms were subsiding and operation was therefore postponed. A few weeks later the outline of the cyst could be felt as before, but over its whole area the percussion note had altered to one of tympanic character. Ovariectomy was performed. The tumour, with twisted pedicle and many adhesions, was found to be full of fetid gas. Only a very small amount of foul pus existed in its lowest pocket. There was no opening of communication with any portion of bowel. The gas was evidently produced by gas-forming bacilli associated with suppuration, the infection probably having gained access by means of the damaged vitality of the adherent portion of bowel wall. The patient made a good recovery. Unfortunately a bacteriological examination was not made. The second case was that of a married woman, aged 38 years, who had undergone two pregnancies, the last one 10 years ago. For four or five years she had suffered from severe attacks of abdominal pain at intervals. About 12 months ago she had had an attack of peritonitis and about one month before operation a more severe attack. Menstruation was regular throughout. On examination the abdomen was seen to be enlarged by an obvious cystic tumour. On percussion a central area of dullness existed with the umbilicus at its centre. The area of dullness was distinctly surrounded by tympanic areas in the epigastric, in both the hypochondriac, and in the lumbar regions, but in addition a broad tract of tympanic resonance existed across the iliac and hypogastric regions. The physical signs were thus suggestive of a pancreatic or mesenteric cyst. A pelvic examination revealed, however, the fact that when the uterus was pulled on by vulsellum forceps it dragged on the tumour. A probable diagnosis of ovarian tumour with long pedicle and abnormal relations of bowel was made. The abdomen was opened. The tumour proved to be a large dermoid of the left ovary embedded in adhesions. The pedicle was twisted so that the original left surface of the tumour had passed

across anteriorly to the right and in doing so had drawn with it a mass of adherent bowel which was found lying across the lower half of the front of the tumour. The tumour was removed and the patient recovered.—The PRESIDENT, Mr. H. LITTLEWOOD, and Dr. HELLIER discussed the paper and Dr. CROFT replied.

The following cases, pathological specimens, &c., were exhibited:—

Dr. HELLIER: (1) Various Patterns of Axis-traction Forceps; (2) Vesicular Mole which caused Hyperemesis Gravidæ; (3) two specimens of Early Adeno-carcinoma of the Fundus Uteri removed by vaginal hysterectomy; and (4) Schultz's Obstetric Phantom with an appliance for contracting the pelvis.

Mr. LITTLEWOOD: (1) Erosion of the Knee-joint for Tuberculous Disease (a man, aged 40 years); (2) three sets of Uterine Appendages removed for salpingitis associated with ovarian cysts; (3) photograph of an enormous Inguinal Hernia; and (4) (with Mr. T. CARTER) a case of Excision of the Upper Jaw (the patient was fitted with an obturator).

Dr. C. M. CHADWICK and Mr. EDMUND ROBINSON: Purpuric Eruption of 30 years' Duration.

Dr. CHADWICK: (1) Unusual Skin Condition; (2) Enlarged Spleen with Hemiplegia in a patient who had suffered from Malta fever; and (3) Chorea in a Child, aged three years, following on Acute Rheumatism with Involvement of the Mitral Valve.

Dr. T. WARDROP GRIFFITH: (1) A case of Acquired Syphilis in a Child; and (2) a specimen of Extensive Rheumatoid Arthritis.

Mr. G. CONSTABLE HAYES: (1) Two cases showing Remains of Pupillary Membrane; and (2) a case of Detached Retina with Hæmorrhages in a Boy, aged eight years.

Mr. B. G. A. MOYNIHAN: (1) Several specimens of Renal Calculi; (2) specimens from three cases of Partial Nephrectomy—two solitary cysts and one tumour of doubtful nature; and (3) specimens from cases of Complete Nephrectomy—(a) papillomata of the pelvis of the kidney, (b) growth of suprarenal capsule involving the kidney, and (c) cystic kidney.

Mr. MAYO ROBSON: Uterus with a Fibro-myoma expanding the Layers of the Broad Ligament.

Dr. H. J. CLARKE (Doncaster): An Abnormal Premature Fœtus.

Dr. E. F. TREVELYAN: (1) A case of Profuse Hæmatemesis in a man (treated with gelatin); (2) an unusual case of Wasting of the Muscles of the Forearm; (3) a case of Functional Intentional Tremor of the Arm; (4) a case of Graves's Disease with a previous history of acute insanity; (5) a case showing Retrogression of Marked Cerebral Symptoms with the exception of the papillitis which had passed into atrophy (? quiescent tuberculous tumour); and (6) a case of Laryngeal Paralysis.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

*Exhibition of Cases.—Temperature of Phthisis.—Suprapubic Prostatectomy.*

A MEETING of this society was held on Dec. 4th, Professor T. R. FRASER, the President, being in the chair.

Dr. W. ELDER and Dr. A. MILES showed a patient after the removal of a Tumour from the Left Prefrontal Lobe of the Brain. The case was that of a man, aged 47 years, who became more and more apathetic, dull, and emotional until he became comatose. There was an indefinite history of syphilis. As he appeared to be dying the skull was trephined and an apparently organised gumma was shelled out from the left prefrontal lobe. He made an excellent recovery.

Dr. G. LOVELL GULLAND and Dr. A. LOGAN TURNER showed a patient after operation for Laryngeal Tuberculosis.

Mr. JOHN SHAW M'LAREN exhibited a patient after recovery from a Compound Depressed Fracture of the Skull and Lepto-meningitis.

Mr. DAVID WALLACE, C.M.G., showed Beckmann's Apparatus for ascertaining the Freezing-point of Blood.

Dr. D. LAWSON of Nordrach-on-Dee read a paper entitled, "Some Clinical Observations upon the Temperature of Phthisis based upon Experience of 100 Consecutive Cases treated by Open-air Methods." Progress towards arrest in an active lesion was characterised, he said, by well-marked clinical phenomena which appeared and were maintained simultaneously. Weight was gained, the pulse-rate fell, the respiration-rate fell, and the temperature fell by lysis and diminished in amplitude. In one case of acute fibro-caseous tuberculosis in a male, aged 22 years, the treatment extended over six months. During this time the pulse-rate fell approximately from 95 to 78 and the respiration-rate from 23 to 13. The amplitude of temperature variation was diminished by almost 1° C. (1.8° F.), and the net gain in weight was 17 pounds. If these phenomena were not associated there were grounds for apprehension. Thus he had seen on more than one occasion death occur after a considerable gain in weight. In one case, although the patient's condition was critical, yet in one week he gained five pounds in weight and within a few days of his death he actually weighed over 12 pounds more than when he first came under observation, while in reality he was losing ground. In another case the truth of the observation that deviation from the general rule was unfavourable was even more marked. Not only was a gain in weight observed, but also a fall in temperature, while the case was steadily going downwards, and the presence of Ehrlich's diazo-reaction was an extremely unwelcome factor. The temperature in phthisis was characterised by two qualities—(1) inelasticity and (2) instability. By inelasticity was meant that tendency which a temperature exhibited when disturbed by any exciting cause to remain in the altered condition after the withdrawal of the disturbing factor. This was illustrated by several charts relating to phthisical patients after such exercise as hill-climbing. By instability was meant a marked sensitiveness to reaction, an extreme liability to become disturbed in the presence of apparently trivial influences, influences so slight that they produced practically no effect on the temperature in health. Among those might be cited slight derangements of the digestive or nervous systems or marked variations in the surrounding atmospheric temperature. The rectal method of taking the temperature was incomparably more reliable than any other and should be adopted in every case of pulmonary phthisis except in those where there were local complications such as hæmorrhoids or ischio-rectal abscess. The rectal method had the following advantages: (1) in some cases of genuine relapse the rectal temperature rose some time (even as much as 12 hours) before the thermometer gave any indication elsewhere; (2) it rose higher both relatively and absolutely at such times than the temperature elsewhere; (3) it was disturbed by trivial factors, such as slight indigestion and nervous causes which often did not affect the axillary range; and (4) it was especially serviceable in connexion with the question of when to begin and how to regulate a patient's exercise. In some of these cases the axilla as a guide was quite worthless and the mouth was nearly so. In every early case of phthisis the temperature ought to be recorded at least four times daily. Temperature in relation to exercise was a complicated and intricate question. It had been customary to assume (1) that exercise always caused a rise in the tuberculous subject, and (2) that a temperature of 98.6° F. at 8 A.M. contra-indicated exercise. These statements were for the most part true, but they were open to many exceptions. Dr. Lawson stated that the effect of exercise on a tuberculous subject might be either to depress the temperature or to raise it. A chart showing the typical subnormal range of temperature in an ordinary case of fibroid phthisis was shown. The patient was kept at rest, and the temperature at one point was about normal. Under a walk of one and a quarter miles the temperature fell 1° C. When again this was discontinued the temperature rose to the level which it first occupied. Doubtless the low temperature in this case represented a temperature of exhaustion brought on by the exercise, small in amount though it was. It was an example of exercise producing a fall in temperature. In another fibroid case with distinct cavity formation present the patient was kept in bed because her morning temperature was 98.6° F. She had gained 20 pounds in weight in eight weeks, but as no improvement otherwise took place exercise was begun and gradually increased until she walked four miles daily. Marked improvement took place and the temperature fell almost at once. Exercise usually raised the temperature; it

did so in about three cases out of four. Of much more importance, however, than the extent of the rise was a characteristic of that rise (first recognised by Bardswell), already alluded to as the elasticity of the tuberculous temperature. If the exercise taken had not transgressed the limits of beneficial exercise the temperature would invariably fall to 37° C., or very near it, during the next hour. Should it fail to do so there were good grounds for caution, and limitation in the rate and extent of the exercises was indicated.—Dr. ALEXANDER JAMES, Dr. GULLAND, and Dr. WILLIAM TAYLOR took part in the discussion.

Mr. WALLACE read a paper on Suprapubic Prostatectomy with notes on 13 cases. He said that a patient might suffer from all the symptoms of prostatic hypertrophy and yet the gland might not be enlarged. This fact had led Poncet to divide cases of prostatism into two groups—(1) those due to enlargement of the prostate mechanically interfering with the outflow of urine; and (2) those due to septic conditions, without enlargement of the prostate, but presenting symptoms similar to those with enlarged prostate. This difference in cause at once led to a difficulty in diagnosis and in the determination of suitable treatment. A consideration of symptoms alone could not determine whether the prostate was enlarged. Enlargement of the gland detected on rectal examination did not necessarily imply mechanical obstruction to the urethral orifice. An apparently small prostate might yet possess an intra-vesical enlargement which might impede urination. At the outset, therefore, much difficulty might be experienced in judging of the condition of the prostate, and the plea for suprapubic cystotomy was strengthened from the standpoint of diagnosis. The view of Guyon, that "the radical treatment of enlarged prostate does not nor cannot exist," still held in the sense that no one method of treatment could be termed "radical" when applied to all cases. The etiology of hypertrophy of the prostate had not yet been satisfactorily determined. The view upheld by the French school that the enlargement was secondary to arterio-sclerosis was untenable. Whatever might be the origin of the enlargement it was often due to the formation of masses of glandular tissue which formed fibro-adenomatous or fibro-myomatous tumours similar to those occurring in the uterus. Three varieties of enlargement might be recognised—(1) vascular, (2) fibrotic, and (3) fibro-adenomatous or fibro-myomatous. Any one of these might act mechanically to produce bladder changes and those symptoms associated with over-distension grouped together as those of "chronic incomplete retention." Four methods of treatment were at present in use—(1) catheterism; (2) cystotomy—(a) perineal and (b) suprapubic; (3) castration or vasectomy; and (4) prostatectomy—(a) perineal and (b) suprapubic. Personally Mr. Wallace thought that the catheter should be used if possible only in those cases where the condition had not reached atony of the bladder, and castration or vasectomy only in those cases where catheterisation had become more difficult or associated with cystitis or bleeding which had come on subsequently to the use of the catheter. He recognised that castration and vasectomy had met with much success, but both had the great disadvantage that accurate diagnosis was not possible, and if either failed to relieve the symptoms time had been lost and the patient after all had to submit to cystotomy. Besides, the mortality of castration was as high as was that of prostatectomy if all cases were considered. Perineal cystotomy could very seldom, if ever, be a better or safer procedure than suprapubic cystotomy. The latter was particularly advantageous, as it enabled the condition within the bladder to be seen precisely. The bladder could be drained by Cathcart's adaptation of the Sprengel pump with the knowledge that the bladder wall would contract and in many cases would recover ultimately its expulsive power. If need be, prostatectomy might be performed or prostatectomy might be adopted. With regard to the latter, much depended on the condition of the prostate. A middle lobe was readily removed; large adenomatous growths could be enucleated, and these were the favourable cases to treat by this method. Mr. Wallace did not believe that all prostates were suitable for even partial removal, and he believed that complete removal of the prostate without opening into the urethra was an anatomical impossibility. This operation, which seemed so natural, had not been so universally adopted even in suitable cases as might have been expected. The factors which influenced surgeons against it, he thought, were: (1) the supposed danger of suprapubic operations; (2) the relief given to patients

suffering from the effects of enlarged prostate by "catheter life"; and (3) the introduction a few years later of an apparently rational operation (castration). As regards the first objection Mr. Wallace gave his own statistics. He had performed 40 operations for very different conditions—tumours, calculi, tubercle, and enlarged prostate. In the majority the urine was septic, while in many the patients were very ill. Amongst these there were five deaths, giving a percentage mortality of 12.5. Two of these deaths occurred in cases of tuberculous bladder, one in a case of vesical tumour, one in a case of septic cystitis plus stricture, and one in a case of simple prostatectomy. These figures showed that suprapubic cystotomy *per se* was not dangerous. The operation was easy and rapid and with reasonable care the peritoneal cavity was safe. If there had been atony of the bladder it might be drained for from three to four weeks. Mr. Wallace then shortly described 11 cases in which he had performed prostatectomy.—Mr. J. M. COTTERELL, Mr. C. W. CATHOART, Dr. A. G. MILLER, and Mr. A. A. SCOT SKIRVING took part in the discussion which followed.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

### SECTION OF OBSTETRICS.

#### *Suppurating Ovarian Cyst.—Posterior Vaginal Celiotomy.*

A MEETING of this section was held on Nov. 22nd, Dr. W. J. SMYLY, the President, being in the chair.

Dr. H. JELLETT read a paper entitled "Notes on a Case of Suppurating Ovarian Cyst complicated with a Large Intraperitoneal Abscess." The patient, who was 38 years of age, was admitted to Sir Patrick Dun's Hospital on July 27th, 1901. She was then in a very critical condition owing to the presence of a tumour which occupied the lower portion of the abdomen. She had been ill for five weeks, her temperature was 101° F., and her pulse varied from 100 to 120. Opening the abdomen resulted in the evacuation of a large collection of most fetid pus, which had accumulated in the peritoneal cavity, among the intestines. The cavity was then washed out and plugged. The existence of a tumour in Douglas's pouch was also determined, but it was not removed owing to the state of the patient making it necessary to shorten the operation as much as possible. The condition of the patient after the operation was very serious and the discharge which escaped from the cavity was most offensive. The cavity was washed out twice daily with sanitas and water (25 per cent.) and the fœtor disappeared. Her temperature fell to normal on August 8th and the abdominal wound, which had not united, was re-sutured with partial success. However, on Sept. 1st the condition of the patient again became serious. Her temperature rose, she lost her appetite, and there was extreme difficulty in getting the bowels to move. On examination a cystic tumour was found in Douglas's pouch pressing on the rectum. This tumour was removed on Sept. 5th through an opening made in the posterior vaginal fornix. It proved to be an ovarian cyst containing a most fetid accumulation of pus. It had apparently no connexion save with the right cornu of the uterus. This pedicle was clamped, and the cavity was plugged with sponges wrung out of very hot water on account of the large amount of general oozing from separated adhesions. No sutures were used. The sponges were removed on the next day and replaced by iodoform gauze. The patient's temperature fell at once and she steadily and continuously recovered strength. Dr. Jellettt drew attention to the effect of hot sponges in immediately checking hæmorrhage.—Dr. A. V. MACAN, under whose care the woman was during the early portion of her stay in hospital, said that her condition was at that time very critical. He now thought that he should have drained the abdomen through the vagina, but there was a firm mass in Douglas's pouch and the patient's condition was very unpromising.—Dr. ALBERT SMITH and Dr. R. D. PUREFOY also discussed the case.

Dr. HASTINGS TWEEDY read a paper advocating Posterior Vaginal Celiotomy (Prior's operation) as the operation of election rather than that by the Anterior Fornix. After incising the vaginal mucous membrane the wound should be enlarged by means of the fingers which were made to tear an entrance into the peritoneal cavity. The Trendelenburg position was now added to the ordinary gynaecological

position. By this means the pelvic cavity could be well explored by sight, long vaginal extractors being employed to keep the edges of the wound apart. In cases where the vagina was roomy such an operation was simple, safe, and suitable for the removal of inflamed fœtal or other small tumours situated to the side or behind the uterus. The adoption of the Trendelenburg position would be found a distinct improvement in the technique of the operation by those who had previously not employed it.—Dr. MACAN, Dr. PUREFOY, the PRESIDENT, and others discussed the paper.

**CARDIFF MEDICAL SOCIETY.**—A clinical meeting of this society was held on Dec. 5th, Dr. D. R. PATERSON, the President, being in the chair. The minutes of the last meeting having been read and confirmed, on the motion of the President, seconded by the treasurer (Dr. A. P. Fiddian), a hearty vote of congratulation was passed to Dr. W. T. Edwards, the senior member of the society, on his attaining his eightieth birthday, and the President, Dr. Fiddian, and Mr. William Sheen were appointed as a deputation to convey the vote to Dr. Edwards.—The President and Dr. F. W. Evans showed cases of Lead-poisoning with well-marked Paralytic Symptoms.—Dr. H. G. Cook showed a patient with Enlarged Glands in the Neck which had materially diminished after the administration of arsenic.—A discussion took place as to whether the enlargement was tuberculous or lymphadenomatous.—Mr. W. B. C. Treasure showed a patient with Aortic Stenosis and Arrhythmical Tachycardia; the condition followed acute rheumatism and had been aggravated by injudicious cycling.—Mr. Sheen showed a man in whom the Lower Ends of the Tibia and Fibula and the whole of the Astragalus had been removed for advanced tuberculous disease. The joint was entered by an external angular incision, no tendons being divided. The patient now did his work as a telegraph messenger. A skiagraph showed the present condition of the bones.—Dr. P. Rhys Griffiths showed a man in whom he had Dilated a Stricture of the Ureter from the Kidney Pelvis after Nephrectomy. A marked increase in the quantity of urine excreted immediately followed the operation.—Dr. Cook showed a Calculus of the size of a walnut removed from the bladder of a girl, 10 years of age. It blocked the neck of the bladder and was removed by suprapubic cystotomy.—Mr. J. Lynn Thomas showed a photograph of an infant with a very large Occipital Meningocele which he had subsequently successfully removed.—Dr. Athol S. J. Pearse showed a complete and well-dissected specimen of Early Abortion. The decidua formed a complete cast of the interior of the uterus, showing the positions of the os uteri and the openings of the Fallopian tubes. In one upper corner was the sac containing a minute embryo. Dr. Pearse pointed out that such a specimen showed the possibility of menstruation continuing during the earlier months of pregnancy and also the possibility of a sound being passed without damaging the fœtus.—Mr. Sheen showed a photograph and drawing of a case of Vaccination Inoculation on the Cheek simulating Anthrax.—Dr. Ewen J. Maclean showed a specimen of Sarcoma Uteri which recurred four times in 10 months. Vaginal hysterectomy was performed. Death finally resulted. An interesting point was the occurrence of an implantation inoculation of the growth on the posterior vaginal wall.—Mr. E. Tenison Collins showed a specimen of Sarcoma Uteri with an attached Cystic Right Ovary, the whole being removed by vaginal incision. The patient did well.—Dr. Eldon Pratt described specimens of Duodenal and Typhoid Ulcers. He pointed out the evil of moving patients when the acute symptoms were present. This was illustrated by his cases.—Mr. Cornelius Griffiths showed skiagrams of Fractured Legs and Patellæ illustrating the transparency of callus of some duration. The medico-legal importance of this and the impossibility of skiagrams of pathological conditions being correctly interpreted by any but medical men were pointed out.—Mr. Tenison Collins described and illustrated by drawings a case of Inversion of the Uterus treated by Haultain's Method, this being, as far as he could ascertain, the second case done. After the abdomen was opened the stricturing part of the uterus was divided, the inversion was reduced, and the wound in the uterus was sewn up. The patient made an uninterrupted recovery.

**NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.**—A meeting of this society was held on Dec. 4th, Dr. E. C

Kingdon, the President, being in the chair.—Mr. A. R. Anderson read notes of, and showed the patient in, the case of a man, aged 47 years, who was admitted into hospital in the early part of this year with Epithelioma of the Skin of the Left Cheek involving the Parotid Gland. He had for years noticed a small lump there like a wart or mole, but it was only recently that it had begun to spread. On admission the ulcer, which was situated just in front of the tragus, measured one and a quarter inches by three-quarters of an inch, and was firmly adherent to the sub-jacent parts. It had a raised, everted, indurated edge and a hard, warty, irregular base, presenting quite a different appearance from the typical rodent ulcer with its slightly raised and scarcely indurated edges and its slightly depressed, glazed, pinkish base. In addition there were a few enlarged glands. The growth was freely excised, and as its base was found to involve the parotid a considerable portion of the gland was removed, as were also the lymphatic glands. The wound healed readily and the patient went home in a few weeks. Early in October he came back with recurrence in the scar-tissue over the cheek. He had now two typical epitheliomatous ulcers, one in front of the tragus, one and a half inches long by one inch broad, the other occupying the site of the tragus and extending for a short way down the meatus. It was evident that nothing short of a serious and extensive operation would suffice to ensure reasonable prospect of success. Treatment with the Roentgen light was begun on Oct. 26th, and continued by daily sittings for 21 days, at the end of which time the ulcers had disappeared and he was apparently cured, their site being occupied by pale, firm scar-tissue. The sittings for the first fortnight were of 10 minutes' duration, being increased during the last week to 15 minutes. A microscopic section of the growth removed at the operation was shown.—Mr. W. M. Willis and Dr. W. B. Ransom spoke on the case and Mr. Anderson replied.—Mr. T. D. Pryce read a paper on the Necessity of Medical Asepsis and Antisepsis. For the purpose of illustration attention was chiefly directed towards enteric fever, in which disease the speaker advocated boiling all excreta and recommended that the necessary utensils should be provided by the municipality who should collect periodically from the houses of typhoid fever patients and destroy such excreta.—The paper was discussed by the President, Dr. H. Handford, Dr. Ransom, and Dr. J. Mackenzie, and Mr. Pryce replied.—Dr. T. Aldous Clinch read notes on two cases of Herpes affecting (1) the first sacral nerve, and (2) the fifth lumbar nerve.—The President and Dr. Ransom spoke on the subject and Dr. Clinch replied.—Dr. Ransom read notes on a case of Intestinal Sand, and showed specimen. The condition appeared to have been the result of eating large quantities of pears, and the symptoms were such as to suggest gall-stones.—The President, Mr. J. Mackie, and Mr. Pryce spoke on the subject, and Dr. Ransom replied.—Mr. Anderson showed a skiagram of a Nail in the Right Bronchus of a Child. He also showed the nail, which was two inches long, and which had been removed by a high tracheotomy. A probe being then inserted the nail was struck at three and a half inches from the wound and subsequently removed with forceps. The patient recovered.—Mr. Willis discussed the case and related that of a child who had been under his care at the Nottingham General Hospital with a central upper incisor lodged in a bronchus. The x rays failed to reveal it. An attack of pneumonia supervened, from which the child recovered, and when convalescent suddenly died. The tooth was found at the bifurcation of the trachea at the necropsy.

**MANCHESTER MEDICAL SOCIETY.**—A meeting of this society was held on Dec. 4th, Mr. A. H. Young, the President, being in the chair.—Mr. W. P. Montgomery made a communication on a case of Acute Duodenal Pressure Obstruction. The patient, a youth, aged 15 years, whose previous health had always been good, was seized with an attack of acute gastro-intestinal catarrh, probably caused by ice-cream. The diarrhoea ceased after 24 hours, but the vomiting continued in excessively large quantities. 48 hours after the onset of symptoms a laparotomy was performed. The dilated stomach filled the whole abdominal cavity. After emptying the stomach and turning it upwards it was found that the duodenum was extremely dilated as far as the point where it was crossed by the superior mesenteric fold. The small intestines were collapsed and pushed down into the pelvis. When these were raised after the emptying of the stomach the duodenal contents passed onwards and

the obstruction seemed to be relieved. The youth died a few hours later and the diagnosis was confirmed by the necropsy. The bearings of this and other cases on so-called acute idiopathic dilatation of the stomach were discussed and the lines of treatment were suggested.—Dr. A. Donald read notes of a case of Oophorectomy for Cancer of the Breast and showed the patient. She was sent to St. Mary's Hospital, Manchester, by Mr. J. Hepworth of Eccles on June 22nd, 1900. She was 46 years of age and had not passed the menopause. The left breast was transformed into a hard mass firmly fixed to the chest wall and to the skin. The growth extended into the axilla. Double oophorectomy was performed on June 23rd. Thyroid treatment was commenced a week before the operation and was continued as soon as convalescence was complete. On Nov. 12th the patient was readmitted. The breast was much smaller and softer and was quite mobile except at one small spot. The mass in the axilla could not be felt. On the 14th the breast, with the axillary glands and a portion of the pectoralis major muscle, was excised. In April, 1901, two small nodules were found in the scar and were excised. On Sept. 4th some hard masses were found in the supra-clavicular region. At the time of reporting the patient's condition was much better than when she was first seen—an interval of nearly 18 months. She had gained weight and had no pain. The nodules in the scar and in the glands above the clavicle were increasing.—Dr. Thomas Harris read a paper on Different Varieties of Stethoscopes, and showed a large collection of different kinds of ancient and modern type. His conclusions were that the attempt to invent a universal stethoscope, either of the monaural or binaural type, which would suit everyone would be sure to be fraught with failure; that what suited one man's ear did not suit another, the consideration of the comfort with which an instrument could be used was much more important than any other detail in the shape of the instrument; that more depended upon the physician than upon the instrument which he used; and that immediate auscultation was too much neglected and was very valuable in many cases. Dr. Harris also referred to a series of experiments which he had made, showing that in the ordinary monaural stethoscope the chief conduction took place through the wood and not through the air column.

**MIDLAND MEDICAL SOCIETY.**—A meeting of this society was held on Nov. 27th, Dr. Arthur Oakes, the President, being in the chair.—Dr. E. S. Nutting and Mr. C. G. Higginson were elected members of the society.—Dr. O. J. Kauffmann showed a Case for Diagnosis. It was that of a girl, aged 11 years, who was affected with a slowly progressing paralysis, with ataxia, which had commenced at the age of eight years. There was no evidence of congenital syphilis and no history of the paralysis following on acute infective disease. The legs were now extremely weak and in spastic extension which was, however, not very rigid; six months ago, when she could still walk a little, there was some reeling ataxia of the gait. The arms were weak and tremulous, the tremors resembling those of insular sclerosis in every respect. There was also a little shaking of the neck and trunk on exertion; no nystagmus had been observed, and her fundi oculorum and pupils were normal. The voice was extremely low and a little nasal, as though there was slight paresis of the soft palate; utterance was very slow and very imperfect, but could not be described as scanning. The ends of the words were clipped and their meaning was understood with difficulty; there was no aphasia. Sensation all over the body was normal. The bladder and rectum were controlled. The mind showed a condition of quiet satisfaction and the face wore a permanent smile. The intellectual development was not that of a child 11 years of age and would have been poor for a child six or seven years of age. Dr. Kauffmann was inclined to regard the case as one of hemispherical cortical degeneration. The view of its being one of hereditary cerebellar ataxia was propounded and the question of insular sclerosis was discussed.—Mr. W. F. Haslam showed a woman, aged 49 years, whom he had treated for Trigeminal Neuralgia by the Injection of Osmic Acid as suggested by Sir William H. Bennett in THE LANCET of Nov. 4th, 1899, p. 1220. The neuralgia had existed for six years and during the latter half of that period the pain had been very severe, while for the last six months it had been almost more than she could bear. Immediate and complete relief

followed the operation, which was performed four months ago, and there had been no return of pain. Mr. Haslam pointed out that though it was too soon to speak positively about the curative effect of the method in this case there was every reason to believe that the results were at least as good as those obtained by the major surgical operations devised for the relief of this terrible condition.—Mr. George Heaton showed a Dentigerous Cyst which he had removed from the lower jaw of a boy, aged 11½ years. The cyst, which was of the size of a pigeon's egg, contained clear straw-coloured fluid. A bicuspid tooth of the permanent set was fixed in its wall with the crown projecting into the cavity of the cyst. The fangs of the tooth were ill-developed. The cavity left in the jaw was packed with gauze and closed up by granulation.—Dr. C. E. Purslow read a paper on Acute Hydrannios, and Mr. Leedham Green a paper on the Closure of Traumatic Defects of the Skull.

**ÆSCULAPIAN SOCIETY.**—A meeting of this society was held on Dec. 6th, Dr. Arthur T. Davies, the President, being in the chair.—Dr. Sydney P. Huggins showed a specimen of Intestinal Obstruction due to Meckel's diverticulum removed from a boy, aged two years and 11 months, who succumbed 36 hours after the onset of abdominal pain and vomiting and very shortly after being first visited.—Mr. Harold Barnard showed two similar specimens. One of these, from a child, three months old, was complicated by the presence of an inguinal hernia. The patient who was almost dead when operated upon died soon after the operation for the relief of the inguinal hernia.—Dr. Leslie Durno read notes of Drug Rashes. 1. In a robust man two pills of ipecacuanha with squill (P.B., 1898) induced great skin irritation, erythema, swelling, petechiae, and desquamation lasting 14 days. 2. Tinnitus, vomiting, and desquamation of the skin of the face following two-grain doses of quinine three times a day. 3. Copaiba rash in a youth in whom desquamation continued for three weeks. 4. A rash, like measles, lasting a few hours following a dose of calomel.—Dr. L. V. Young related a case of an Iodide Rash following the taking of five grains of iodide of potassium thrice daily for four days which bore a very close resemblance to variola. In this there were oedema of the eyelids, papules, vesicles, and pustules present at the same time on different parts of the body and together on the head and face. Recovery was not complete in two months.—A general discussion followed.

**IPSWICH CLINICAL SOCIETY.**—A meeting of this society was held on Nov. 14th.—A very interesting lantern demonstration was given by Dr. J. Purves Stewart on the Value of Inspection in the Diagnosis of Nervous Diseases. Slides were shown illustrating the following:—posture in organic hemiplegia; contrast with functional hemiplegia; athetosis; pes cavus; the plantar reflex; normal flexor response and abnormal extensor (Babinski's) response; posture in paralysis agitans; hypertonia in tabes rendering abnormal postures of the limbs possible; posture in lesions of the cervical enlargement, especially of the fifth and sixth cervical segments; ruptures of the brachial plexus, their association with paralysis of the cervical sympathetic if the lowest roots of the plexus were torn; diagnosis of lesions of various cranial nerves by inspection; lesions of the crus cerebri; lesions of various spinal nerves; and posture in pseudo-hypertrophic paralysis, &c.—At the close of the lecture a very hearty vote of thanks to Dr. Stewart was proposed by Mr. R. W. Brogden and seconded by Mr. Branford Edwards.

**ROCHDALE AND DISTRICT MEDICAL SOCIETY.**—At a meeting of this society held on Dec. 5th Dr. Ernest S. Reynolds gave a lantern demonstration of Photographs illustrative of Nervous Diseases, both from the Clinical and Pathological Aspect. The cases shown comprised—(1) cerebral diseases; (2) diseases of the spinal cord; and (3) peripheral neuritis. In the course of his remarks Dr. Reynolds said that early cases of disseminated sclerosis were sometimes diagnosed as hysteria and that cases of hysteria in which ankle clonus could be obtained should be carefully observed for further symptoms. The retropulsive gait in paralysis agitans had been said to be rare, but it was probably as common a symptom as the propulsive if duly looked for. It was not the case that in locomotor ataxia the heel left the ground last in walking. The movements of the foot in relation to the ground were the same as in ordinary walking. This was proved by an instantaneous photograph. It was doubtful whether alcohol alone ever caused peripheral

neuritis.—Dr. Reynolds was awarded a hearty vote of thanks by the society for his instructive demonstration.

**WIGAN MEDICAL SOCIETY.**—A meeting of this society was held on Dec. 5th, Mr. W. Latham, the President, being in the chair.—Dr. F. Rees contributed a paper on Epidemic Jaundice, detailing a number of cases, and he was followed by Dr. J. Blair who gave the clinical history of several cases which he had seen in his own practice.—A very interesting discussion took place in which the following members took part: The President, Mr. H. E. Jones, Mr. T. M. Angior, Mr. C. M. Brady, Mr. Holmes, Mr. Benson, Dr. R. P. White, Dr. Boyd, and the honorary secretary.—A vote of thanks was accorded to Dr. Rees and Dr. Blair.—Mr. M. G. McElligott showed a case of Enlarged Spleen in a man 30 years of age.

**FOLKESTONE MEDICAL SOCIETY.**—A meeting of this society was held on Nov. 29th, Dr. W. J. Tyson, the President, being in the chair.—Mr. H. Braund was unanimously elected a member.—Mr. M. G. Yunge-Bateman opened a discussion on the Notification of Tuberculosis.—The following also took part: Dr. T. Eastes, Dr. C. E. Perry, Dr. C. Latter, Dr. A. Gordon Wilson, Mr. M. Dobbs, Dr. P. G. Lewis, Mr. W. P. Barrett, Mr. W. F. Chambers, Mr. W. W. Linington, and the President.—Dr. Latter proposed "that a hearty vote of thanks be given to Mr. Yunge-Bateman."—This was seconded by Dr. Eastes and carried unanimously.

## Reviews and Notices of Books.

*Zoology: An Elementary Text-Book.* By A. E. SHIPLEY, M.A., and E. W. MACBRIDE, M.A., D.Sc. Cambridge: University Press. 1901. 8vo. Pp. xxi. 632, with 349 Figures in the text. Price 10s. 6d.

THE intending student of zoology has not much difficulty nowadays in finding a text-book to initiate him into the science. His difficulty, indeed, is in selecting from among a crowd so large that the choice becomes a little bewildering without some guidance. In the course of the following remarks we shall endeavour to indicate some of the features of this, the newest, text-book of elementary zoology for the guidance of the perplexed beginner. Good paper, clear type, abundant illustrations, and general attractiveness are superficial merits but none the less real. We well remember some of the dingy and depressing manuals which were placed before us for instruction in the "seventies"; at that time the translation of Gegenbaur came as a revelation of what trivial accessories could do to render the contained matter inspiring. But the practice of producing text-books of superior get-up is now so general that the matter requires no prolonged comment. One feature which impresses the reader in a preliminary turning over of the leaves of the handbook of Mr. Shipley and Professor MacBride is the prevalence of new illustrations, especially among the vertebrata; a number of these have been, it is to be presumed, drawn from specimens in the Cambridge Museum.

The method followed by the authors is to commence at the root of the tree of life and to work upwards. Now many distinguished authorities hold that in treating of animal structure it is desirable to commence with the higher forms and gradually to work down to the lower forms. In favour of this is the fairly certain fact that some notion, however rough, of human anatomy is possessed by most persons, whereas the very methods by which the lower animals are studied are new to the beginner. There is, however, no transition between the dissection of a frog with a scalpel and scissors and the examination of an amoeba with a microscope. The plunge into an unfamiliar subject must be made some time, and why not at the very outset? Besides, to begin with the low forms and to work upwards to the higher forms in an ascending order has the undoubted advantage of presenting the facts in logical sequence. We agree with the authors in adopting this plan, though they depart from it by placing the non-coelomate worms at the

very end of the book after the mammals themselves. As, however, the coelom is made the keystone of the animal edifice their behaviour in this respect is justifiable.

An introductory chapter deals with various prolegomena, such as protoplasm, the differences between animals and plants, and classification. Not without point, on the assumption that the reader will be a beginner, is the observation that it is rash to try to interpret the actions of beasts by motives and emotions like those which cause the sometimes apparently similar actions of human beings. The hyena and the Australian kingfisher at the Zoological Gardens frequently laugh loudly and long, but we need not assume that this is due to joy any more than we are compelled to put down to an expression of mingled misery and anger the occasional snarls of a wild cat in the same institution. But after this preliminary caution the authors have little to say about the psychological side of zoology. The work is, in fact, almost purely anatomical and the structure of a chosen type is explained in detail followed by a survey of the group to which it belongs. Added to this it should be noted that in order to avoid repetition the authors treat in a more lengthy fashion the animals which stand at the beginning of the series; certain generalities are there explained which need not be subsequently referred to. There is thus in this book a greater mass of matter than might be inferred from its actual length, considerable though that, after all, is. Two such experienced investigators and teachers as are Mr. Shipley and Professor MacBride would be hardly likely to cause criticism by actual errors of fact. We do not find much to correct in this respect, though the complete elimination of even the most elementary errors, even by persons well acquainted with their subject, is, as we have ourselves found and as the late Professor Milnes Marshall observed, "curiously difficult." The authors should, however, in a subsequent edition revise the account of the bird's syrinx at p. 492, as from their statement it might be inferred that in all birds the *membrana tympaniformis externa* is present; it is, of course, absent in most of the storks and in some other birds. It is, indeed, rather with interpretations of facts that we occasionally disagree with the authors. For example, when they say (p. 27) that a mass of protoplasm divided into units each with its nucleus would not be a protozoon we would refer them to such forms as *volvox*. It seems, also, a little difficult to grasp what they mean in writing (p. 32) that the extinction of protozoa which do not conjugate, but only reproduce by fission, "is the nearest approach to natural death which is met with among the protozoa." What on earth—or rather out of it—is it but death? These points, however, do not greatly detract from the usefulness of this really meritorious text-book.

*Epilepsy and other Chronic Convulsive Diseases.* By Sir WILLIAM GOWERS, M.D., F.R.C.P. Lond., F.R.S. Second edition. London: J. and A. Churchill. 1901. Pp. 320.

It is just 20 years since the first edition of this truly classical work was published. It has been long out of print and very difficult to obtain. We welcome a second edition, and while we note how well and completely it has been brought up to date it is a high compliment to the excellence of the first edition to remark that in spite of the fact that the deductions now tabulated are from a much more extensive series of cases than were those of the first edition—viz., 3000 cases as contrasted with the earlier series of 1450—it is astonishing to what a small extent the results arrived at in the first series of cases have been modified by the larger number now included. As has just been said, it is an indication of the high value to be attached to the earlier book that such is the case. It is scarcely necessary to enumerate the salient features of the book, the titles of the different chapters are a sufficient index. The first deals broadly with epilepsy in relation to its various

causes, predisposing and exciting; the second, third, and fourth with the symptoms, set forth in rich and varied detail; the fifth with organic epilepsy; the sixth with hysteroid convulsions and hystero-epilepsy; the seventh with what may be called the clinical pathology of epileptics; the eighth with the course of the disease; the ninth with pathology; and then follow in order chapters on the diagnosis, prognosis, and treatment of the disease. It need only be said that the work is a complete monograph on the subject and that all the latest advances both in the investigation of its pathology and treatment are set forth in great detail and with admirable lucidity. Students of Dr. Hughlings Jackson's evolutionary doctrines may perhaps be a little disappointed to find their master's views not quite so freely set forth as they might have wished, but those views have received recognition and, in regard to many points, cordial appreciation and adoption.

All who are interested, either for theoretical or practical reasons, in the fascinating subject of epilepsy, will heartily welcome this volume—a marvel of industrious and illuminating research—and will cordially congratulate the author on a piece of work which places his profession—for which he has done so much—under a still deeper debt of gratitude to him.

*Pharmacopœia.* By EDMUND WHITE, B.Sc. Lond., F.I.C., Pharmacist to St. Thomas's Hospital, London; and JOHN HUMPHREY, London: Henry Kimpton. 1901. One vol., crown quarto. Pp. 600. Illustrated. Price 14s. net.

THE word which forms the title of this excellent work is derived from the Greek *φάρμακον* and *παιδεία*, and the meaning is simply "information about medicines." The book is one for the pharmaceutical chemist rather than for the medical man. It is a work designed as a companion to the "Pharmacopœia Britannica" and should be read side by side with it. The work is carefully done, and the book may well be considered indispensable to the well-educated chemist. In a comprehensive and lucid manner the authors deal with the chemistry, the botany, the pharmacognosy, and the pharmacy of the drugs of the "British Pharmacopœia," and their work differs from that of many other writers on such subjects in being of good literary style.

The galenical preparations of the "Pharmacopœia" are described, each in its appropriate pharmacological place. There are copious illustrations of crude drugs, and the 46 plates devoted to them are beautifully executed. As far as we know no book of the kind has been previously published, and it may be therefore truthfully stated that the book meets a "distinct want." It might be supposed that in a volume written by authors who have been dispensing medicines for many years there would be a great deal of verbiage on the subject of methods to be adopted in the laboratory. Every teaching pharmacist no doubt has his own whims and fancies, if we may so term them. The critical faculty is exceedingly difficult to suppress, and laboratory methods certainly form a subject which might run away with anyone who knows his pharmacy well. In point of fact, such chapters on pharmacy as we have read are remarkable for their conciseness and practical utility. The book is one which all students may read without boredom and with much satisfaction. The "Pharmacopœia" and this companion, the "Pharmacopœia," are essentially guides for the dispenser, for their standards are fixed to meet the requirements of practical men in the dispensing trade and not of manufacturers on the large scale. We may add that the "Pharmacopœia" is well bound in red cloth, gilt and with marbled edges, and that we consider its price moderate.

#### LIBRARY TABLE.

*Experimental Hygiene.* By A. T. SIMMONS, B.Sc. Lond., and E. STENHOUSE, B.Sc. Lond. London: Macmillan and

Co. 1901. Pp. 322. Price 2s. 6d.—The Board of Education, in the syllabus recently issued for the examination in domestic science, requires a course of study embracing both physics and chemistry, but although there are already in existence many text-books dealing with these combined branches of science the majority of these have been written more especially for the use of medical students. The authors in the present instance have evidently endeavoured to produce a treatise that should impart the knowledge in as simple a manner as possible, whilst containing all the subject matter required by the syllabus referred to. By a practical application of the physical and chemical reactions described to the facts of everyday household management they appeal at once to the girl-student, for whom the book is primarily intended. The diagrams are numerous, and being, as a rule, original and well drawn, they form a very useful addition to the text. A few chapters devoted to the human body, digestion, and the chief constituents of such substances as flour, nitrogenous foods, fats and soaps are included, and here again the information given is clear and concise. The final section contains a brief account of micro-organisms and their work, with hints on the preservation of food, the necessity for cleanliness, and the prevention of contagion. The book throughout is well provided with descriptions of experiments, and these being of a simple and attractive character should encourage in the young student the faculty of observation and tend to impress essential facts on the memory. The authors may be congratulated on the production of a book that is suitable for the purpose for which it is intended.

*A Topographical Atlas of the Spinal Cord.* By ALEXANDER BRUCE, M.D., F.R.C.P. Edin., F.R.S.E. London: Williams and Norgate. 1901. 32 Plates.—The aim of the author in this work has been to set out in a pictorial manner the features of sections at each level of the spinal cord in such a manner as to facilitate the identification of the level of any particular section. It is thus a work which appeals more particularly to the specialist, and like all such works it is apt to miss the wider appreciation to which it is in every way entitled. No one who has not attempted such work can properly appreciate the industry and skill and artistic excellence which have been given to the work, and the author is to be congratulated on having produced a book which will be used daily in each neurological laboratory, and, we venture to think, will be most cordially appreciated. The plates are marvels of photogravure, as the sections must have been examples of great manipulative skill, and no praise is too great for the care which the author has taken to render the work in every way accurate and complete.

*Whitaker's Almanack, 1902.* By JOSEPH WHITAKER, F.S.A. London: 12, Warwick-lane. Pp. 776+143. Price 2s. 6d.—“Whitaker” is now in its thirty-fourth year, and every annual issue makes it more than ever a necessary book of reference for all British citizens. There is more good reading in “Whitaker” than in many rows of portlier tomes, and what Whitaker “doesn't know isn't knowledge,” as the late Professor Jowett, in the familiar rhyme, is made to say about the scope of his own information. The almanack has this year been entirely reset from new type, and we understand from the preface that owing to the large increase that has taken place annually in the circulation the book will in future be printed from specially prepared plates. In addition to the usual changes, the Accession of King Edward VII. and the honours bestowed for services in the war have revolutionised the orders of knighthood, the increases in Companions alone being: C.B., from 639 to 741; C.M.G., from 385 to 672; D.S.O., from 345 to 1312; and C.V.O. and M.V.O., from 53 to 162. These additions have necessitated shortening of certain of the special articles, but they are quite as effective and interesting in their present four-page form as they were formerly under the guise of from 10- to 20-page articles. Other of the special articles which have

from year to year been a feature of the book no longer make an appearance, but there is an admirable index of all articles which have been published in former issues. Monotonous praise is all we have to offer for a production which day by day and year by year saves our all too scanty time.

#### JOURNALS AND MAGAZINES.

*The Journal of Comparative Pathology and Therapeutics.* Edited by J. MCFADYEAN, M.B., B.Sc. Edin., F.R.S.E. Vol. XIV. Part III., September, 1901. Edinburgh and London: W. & A. K. Johnston, Limited.—The September quarterly number of this journal fully maintains the high standard which we are now accustomed to expect, though it is made up principally of reprints of papers that were read at the British Congress on Tuberculosis and have appeared elsewhere. These include Professor Koch's general address on the Combating of Tuberculosis in the Light of the Experience that has been gained in the Combating of Other Infectious Diseases; Principal McFadyean's address on Tubercle Bacilli in Cows' Milk as a possible Source of Tuberculous Disease in Man; Some Experiments on the Temperature necessary for Killing Tubercle Bacilli in Milk, by Professor Bang of Copenhagen; and How Can the Tuberculin Test be Utilised for the Stamping-out of Bovine Tuberculosis? by Professor Delépine. An original article by Principal McFadyean on the Bacteriological Examination of the Lesions in a Series of Horses that had Reacted to Mallein is of considerable interest, as he comes to the conclusion that his experiments, 26 in number, furnish no evidence at all regarding the curative effect of mallein. He finds that although some of the horses had apparently recovered 14 were proved not to have recovered, and, as he points out in the case of the former, it is quite possible that the course of the disease would have been the same if they had never been tested. He, moreover, shows that in some cases glands bacilli were recovered from the lesions in several animals that had apparently failed to react to some of the later tests, and he insists that when a horse reacts distinctly to the first test non-reaction to subsequent tests repeated at monthly intervals cannot safely be accepted as evidence of complete recovery. Reports of three clinical cases and class lists complete this number.

*The Quarterly Journal of Microscopical Science.* Edited by E. RAY LANKESTER, F.R.S., with the coöperation of ADAM SEDGWICK, F.R.S., W. F. R. WELDON, F.R.S., and SYDNEY J. HICKSON, F.R.S., with lithographic plates and engravings on wood. London: J. and A. Churchill. 1901. Vol. xlv., part 2. Price 10s.—This part contains the following articles: 1. The Lateral Sensory Canals, the Eye Muscles, and the Peripheral Distribution of certain of the Cranial Nerves of *Mustelus Lævis*, by Edward Phelps Allis, jun., with three plates. The article is a long and carefully drawn up description of the ophthalmic nerves in many kinds of fish, and the author criticises the views of other writers. He considers that there are in fishes several ophthalmic nerves between which it is necessary to make careful distinctions. He compares each of these with its homologue in the higher animals. The plates illustrating the text are interesting and instructive. 2. The Anatomy of *Scalibregma Inflatum*, by J. H. Ashworth, D.Sc., with three plates. *Scalibregma* is a polychæte worm varying from one-fifth of an inch to more than two inches long, one-fifth of an inch broad, and having about 60 segments. The morphology and anatomy of the animal are very fully described. 3. On the Pelvic Girdle and Fin of *Eusthenopteron*, by Edwin S. Goodrich, M.A. The *eusthenopteron* is a fossil fish, and the interest attaching to it is that of all the numerous extinct fishes usually included in the group *crossopterygii*, which includes the living *polypteridæ* and the fossil *diplopterus*, *cœlacanthus* and *holoptychius*, it is the first and only one in which the parts of the skeleton of the pelvic girdle and its fin have been found complete and in their natural relations.

# THE LANCET.

LONDON: SATURDAY, DECEMBER 14, 1901.

## The Report of the Departmental Committee on Food Preservatives.

AS we announced in THE LANCET of Nov. 30th, p. 1510, the report of the Departmental Committee appointed to inquire into the use of preservatives and colouring matters in food has at length been published. The committee discovered soon after their appointment that practically the question which they had to answer was: Are the substances at present in use for preserving or colouring foods or beverages so harmful to the health of the consumer as to call for prohibition, limitation, or declaration?—and to this question they have replied in very definite and, as we consider, reasonable terms. Nobody can doubt that the practice of putting preservatives in food is one which calls for control. We ourselves called loudly for such control some years before the committee were appointed, as we were receiving evidence day by day that the practice of adding preservatives was increasing and that no regard was paid to the choice of preservative or the quantity used. So strongly were we convinced that harm sooner or later would accrue, and that objectionable practices were likely to grow to an appalling extent, that we set on foot an inquiry with the result that public attention was forcibly drawn to the subject; and ultimately a Departmental Committee was appointed to consider the question and to place before the Government a definite pronouncement as to whether the practice demanded legislative interference—and if so how it could be applied without being vexatious to traders while at the same time protecting the health of the consumer.

Our view was that, certainly, in some instances the use of preservatives was legitimate so long as they were used in minimal quantity and that it could be shown that this minimal quantity, whilst sufficient to preserve the article of food in question, was harmless to the consumer. In a word, legislation whilst not encouraging the use of preservatives should specify the permissible substances for this purpose and should place limitations upon the amounts to be used. We are gratified to find that the recommendations of the committee, as now published, are almost exactly in accordance with this view. This accordance is all the more satisfactory to ourselves in view of the extraordinary care which the committee have evidently devoted to a consideration of the many points of view of the subject presented to them. They examined no less than 78 witnesses; they appointed sub-committees to inspect industrial processes at home and abroad; and the inquiry has lasted for just over two years.

We have had occasion more than once to complain of the

delay of the publication of the report, for several months ago we understood that it had been placed upon the table of the House of Commons. The delay was regrettable because legal proceedings in the meantime had been instituted in various parts of the country against those employing preservatives in food with the result that contentions similar to those which were being threshed out by the Departmental Committee took place in the courts with an inevitable waste of time and money. Of course, the recommendations have yet to be approved by Parliament before they can become a basis of actual legislation, but we are pretty certain that pending an Act regulating the use of preservatives magistrates will be guided by the conclusions of this committee. And we think that they will be correctly so guided, for the conclusions represent the only course that science and practice have dictated. It is true that much conflicting evidence has been furnished, but the committee, in our opinion, have abundantly cleared the issues in their recommendations.

Let us take, for example, the case of milk. The committee regard as idle the idea that it is impossible to supply London with milk not artificially preserved. And they had ample evidence on which to ground this opinion. One witness stated that for several years he had consigned milk to London—a distance of 126 miles—under a contract which prohibited him from the use of preservatives; the only precautions which he adopted, and which he regarded as indispensable, were carefully to strain the milk and to cool it by means of water, after which treatment there was never any trouble from the milk going sour. Again, one large dairy company stated that they used no preservative whatever in milk, and evidence was given by the Royal Agricultural Society that to their knowledge farmers were sending the milk of from 500 to 1500 cows daily to London from Faringdon and Didcot without the use of preservatives. Doubtless the absolute prohibition of adding chemical preservatives to milk would be attended with some inconvenience at first, but, as the committee remark, they were impressed with the need for facing this inconvenience and for rendering the vendors of milk containing preservatives subject to penalties under the Sale of Food and Drugs Act. Milk is *par excellence* the natural food, forming a very large proportion of the daily fare of the public, and this fact, coupled with its use by invalids and infants, abundantly justifies the recommendation (B) that the use of any preservative or colouring matter whatever in milk offered for sale in the United Kingdom should be constituted an offence under the Sale of Food and Drugs Act; and again, on similar lines of reasoning, is justified the recommendation (E) that in the case of all dietetic preparations intended for the use of invalids or infants chemical preservatives of all kinds should be prohibited. Readers of THE LANCET will probably remember our practical inquiry which related to the quality of the milk supplied to the metropolitan hospitals. Out of 11 samples of milk examined no less than four were preserved, one with formaldehyde and the rest with boron preservative. We note with satisfaction that at the instance of the committee samples of the milk supplied to the London hospitals were sent to the Government laboratory with the result that only one was found to contain a preservative. We are justified, therefore,

in concluding that the report of THE LANCET Special Analytical Commission on the Quality of the Milk Supplied to the Metropolitan Hospitals, which was published in THE LANCET of Jan. 1st, 1898 (p. 54), did undoubtedly good.

In the case of cream it is proposed to make the addition of boric acid or mixtures of boric acid and borax lawful, but the amount must not exceed 0.25 per cent. expressed as boric acid. In the same way it is proposed that the only preservative permitted to be used in butter and margarine shall be boric acid or mixtures of boric acid and borax, the proportions not to exceed 0.5 per cent. expressed as boric acid. The use of formaldehyde or any of its preparations is to be absolutely prohibited, and salicylic acid is not to be used in a greater proportion than one grain per pint in liquid food and one grain per pound in solid food, its presence in all cases to be declared. The use of copper salts in the so-called "greening" of preserved foods is to be prohibited. This, perhaps, is the most sweeping suggestion and we are not surprised to find a difference of opinion on this point. Dr. TUNNICLIFFE emphasises the importance of the appetising appearance of food which may be a factor in determining its nutritive value and in his opinion the gratification of the public taste for a perennial supply of green vegetables should not be arbitrarily prevented without very definite reason, whereby an industry which, if not important, is at least thriving, might be destroyed. It is well to remember, also, that in France an order was issued prohibiting the use of copper for the above purpose and that this order had subsequently to be rescinded. In Germany the actual enforcement of the prohibition is attended with difficulty, for preserved vegetables containing copper are easily obtainable on the open market in spite of it. But it must be admitted that it is highly undesirable that a poisonous substance should be used in food even to the smallest extent, and the position of those members of the committee who have condemned absolutely the use of copper salts in preserved food is very strong. They maintain that serious and widespread mischief may result from the consumption of food and drink containing even minimal quantities of poisonous metallic substances, as in the case of arsenic in beer, so that it is desirable that such poisonous substances should be rigorously excluded.

Finally, we are in complete accord with the opinion that the departmental machinery for controlling the preparation and conservation of food and drink in this country is not as complete as could be wished, and we agree that the appointment of a court of reference is indicated, embracing at least a chemist, a bacteriologist, a pharmacologist, a physician, a physiologist, and a representative of the public health service. Failing the creation of such a court the committee consider that the Local Government Board should possess, and should be called upon to exercise, such powers as will enable them to schedule by order any preservative or colouring matter which after such inquiry and experiments as the department may deem fit may be regarded as likely to prove dangerous to the public health. We have urged again and again the desirability of a control of this kind being exercised.

The report reflects credit upon all concerned. It contains the results of a most exhaustive and painstaking inquiry in

which the interests of the industries involved have been carefully studied, whilst the greatest regard has been paid to a much higher issue—the public health. We feel that the committee have adopted a very judicial and practically unassailable attitude.

## The William Smyth Memorial Fund.

As we have already announced, a fund is being raised for the widow and eight children of Mr. WILLIAM SMYTH who sacrificed his life to save the lives of others on the coast of Donegal during the outbreak of typhus fever on Arranmore Island. He fought the epidemic on the island while he could, and then, having resolved to convey his patients from the hovels in which they lay to the isolation hospital on the mainland, found that he would have to encounter not only passive but active resistance from the friends or neighbours of those who lay ill. Active assistance he obtained only from Mr. MCCARTHY, medical inspector under the Local Government Board, and these two brave and determined men rowed a crazy boat, the only one they could get, across to the island, and under police protection placed the patients in it. No fisherman would help them and a boat-load of police officers to whom they appealed to tow them to the mainland refused all aid. At last, tired out by their exertions, they brought the sick persons whom they had rescued to a landing-place, whence an ambulance conveyed them to the hospital, but Mr. SMYTH has since fallen a victim to the infection from which he sought to save others and has died.

Of the honour which brave acts done for others' sake ever win among men Mr. MCCARTHY has earned his full share, and what he did will not, we hope, be forgotten; but we are concerned now with the welfare of the widow and children left behind by Mr. SMYTH. He, it will be remembered, bore the full brunt of the struggle. If he ever knew that he had accomplished the work that he set himself to do, he died without thought of the praise his deed would earn for his memory, but only with the consciousness that he was leaving those he loved to face the world before he had had time to make provision for them. In such cases as his, we may truly say, the act is performed as a matter of duty, with full knowledge of the risks involved, and is rarely heard of in the outer world unless a tragic termination or some chance incident calls public attention to it. It is none the less incumbent on us to recognise bravery and devotion to duty when they are brought to our notice and when the best method of recognition is simple and obvious.

The fund to which we call attention has been inaugurated by donations from the Presidents of the Royal College of Physicians of Ireland and the Royal College of Surgeons in Ireland, while letters of sympathy, accompanied by subscriptions, have been received from the Lord Lieutenant of Ireland, from the Duke of ABERCORN, Lord Lieutenant of the county of Donegal, and from Cardinal LOGUE, Archbishop of the Roman Catholic Church in Ireland. It is a fund, however, to which all may well be invited to contribute, whether their donations be large or small and whether they are given by those who sympathise with the fate of a brother member of the same

great profession or by those who only look on at the work done by the medical practitioner and realise in some measure the dangers which he encounters in his life's routine. Mr. SMYTH, we need hardly say, went beyond the beaten track in which the physician may at any time meet with, and succumb to, a deadly disease. He sought his patients where he could hope for no adequate reward and he imposed on himself in his endeavour to rescue them a task which he might have avoided without discredit—a task, moreover, which was well calculated to exhaust him and to enhance the danger of infection and its consequences.

Sometimes honour falls to such a man as he was in his lifetime. Members of the medical profession have lived to receive the reward of bravery, not only when, as recently in South Africa, they have gained distinctions by their self-sacrificing devotion on the battlefield and in hospitals crowded with the victims of a great war, but also when in the more peaceful pursuit of their practices they have performed actions which have been made known. Nevertheless, the greater number of the acts of courage and self-sacrifice that are performed by members of the medical profession must of necessity be done without expectation of fame and without hope of reward, save only of the reward which is found in the consciousness of good work done. Mr. SMYTH has not survived to enjoy even this, but it will be possible for those who live in the neighbourhood in which he worked and died, to do something to help those whom he left behind, knowing well that nothing can repair the loss which they have sustained. Those beyond that neighbourhood, whose attention we more particularly call to the fund that has been instituted, will contribute in gratitude for the good example set and in memory of a true medical hero.

### The Election of Direct Representatives on the General Medical Council.

MR. GEORGE JACKSON and Mr. GEORGE BROWN have been elected Direct Representatives of the medical profession for England and Wales upon the General Medical Council—a result that had been very generally anticipated. Mr. GEORGE JACKSON, who is a new member, was "runner-up" at the last election, being defeated by Dr. J. G. GLOVER, whose vacancy, upon retirement, he now fills; while Mr. GEORGE BROWN has been re-elected for a second term of five years. We trust that these two gentlemen will endeavour efficiently to discharge the responsible duties that rest upon their shoulders. What is wanted, if the Direct Representatives are to be of sensible use to our profession, is united action; separate attempts to impress upon us that we have in our Direct Representatives stern and uncompromising reformers do not advance the general cause to an appreciable extent. Some difficulty about united action may have been created by the attitude of Mr. VICTOR HORSLEY who threw the whole of his influence upon Dr. S. WOODCOCK'S side in the recent election, attending meetings in that gentleman's behalf, and making vigorous and interesting, if not always judicious, speeches in his support. Mr. HORSLEY'S efforts have proved

unsuccessful; while both Mr. JACKSON and Mr. BROWN, who stood for election on the same ticket, take their seats upon the Council with the feeling that the third Direct Representative for England and Wales opposed their return to the best of his ability. He wanted the seat of one of them for Dr. WOODCOCK. We trust that Mr. JACKSON and Mr. BROWN, having been victorious, will also be magnanimous. They must forget that they have recently had in Mr. HORSLEY a conscientious opponent at the hustings, and must remember that he is a brother reformer with whom it is absolutely necessary that they should coöperate cordially if their separate or united services are to be worth their full value to the constituency. The candidature of Dr. C. W. HAYWARD, who occupies the bottom place in the poll, introduces a new element into the election of Direct Representatives. He is, we understand, a homœopathic practitioner, so that his election would have been tantamount to a recognition by the medical profession that the imaginings of HAHNEMANN are legitimate scientific developments. Dr. HAYWARD'S success was never in question, but the position would have been comic, although most serious, had the General Council of Medical Education and Registration found in its body a gentleman whose convictions compelled him to view much of the accepted theory of medical science as incorrect. There are many directions in which reform is admittedly required in the medical profession—directions which we believe Dr. HAYWARD to realise every whit as fully as the other candidates—but the educational curriculum of the student does not need to include instruction in therapeutic heresy.

### Annotations.

"Ne quid nimis."

#### UNEXPECTED DEATH WITHOUT OBVIOUS CAUSE.

INQUESTS are occasionally held in which the medical men who give evidence declare that they can assign no reason for the death, the post-mortem examination disclosing nothing to enlighten them. It is, of course, presumed that an analysis for poisons has been made, including a search for those that leave but little trace behind. It is well known, however, that cases do occur from time to time in which it is very difficult, if not impossible, to state what has been the cause of death. Some cases of this nature which have been recorded would probably have been explained if a more minute examination had been made. For instance, at an inquest held on the body of a child the medical practitioner who made the necropsy stated that he had made a careful examination of all the organs of the body (including the brain) but failed to find any morbid condition save slight congestion of the lungs. The coroner asked him whether he had examined the pharynx and larynx. The witness confessed that he had not, and on further examination a mass of bread was found occluding the opening into the larynx. The cause of death in those persons in whose bodies the most careful examination failed to detect disease has been assumed to be profound depression of the heart's action through nervous influences. Fright has frequently been known to cause death, or a blow on the epigastrium has brought about a fatal termination without leaving any

trace of injury either internal or external. In another class of case latent or undetected disease may be the cause of the cardiac failure. A patient may have suffered from an attack of diphtheria which had not been recognised, and during convalescence may die from syncope, in which case the true cause of death may be entirely overlooked. Still another series of cases is drawn attention to by Dr. Dixon Mann.<sup>1</sup> He there states that the bladder, urethra, and genitals are comprised among those parts of the body the abrupt handling or compression of which is attended with exceptional risk of sudden death from cardiac inhibition.

#### KENDAL AND ITS MEDICAL OFFICER OF HEALTH.

KENDAL has a town council and also a Health Committee appointed by that body. The chairman of the Health Committee is Councillor J. H. Braithwaite, and at a meeting of the town council held on Nov. 26th the Health Committee reported among other matters that the ambulance should be under the charge of the inspector of nuisances and that it should not be removed without his knowledge. We may as well say at once that this recommendation was after some discussion sent back to the Health Committee for further consideration. During the discussion, however, some curious statements were made. Mr. R. M. Craven, who is the medical officer of health and who was present at the meeting of the Health Committee when this recommendation was passed, wrote a letter to the town council mentioning that certificates of infectious disease were sent to him as medical officer of health and asking whether on receipt of a notification of a case of infectious disease he was at liberty forthwith to order the ambulance to convey the patient to the sanatorium, should he consider such removal necessary, or must he first obtain the consent of the inspector of nuisances to the use of the ambulance for such purposes. The mayor said that he supposed that the letter would have to be referred to the Health Committee but that in the meantime he would like to hear any comments which the chairman of that committee might like to make. Whereupon Mr. Councillor Braithwaite got up and characterised Mr. Craven's letter as "a piece of gross impertinence. It was nothing more or less than an attempt to go behind and to override the instructions of the Health Committee. It was one of those efforts of which they saw many before to assume an arrogant assumption of independent authority and action which had in times past caused so much difficulty, discomfort, and inconvenience in the whole of Mr. Craven's work with the corporation and its officers. It was a position of which he had already expressed an opinion, a position to which Mr. Craven had no right whatever, and one with which unfortunately, through his absolute lack of judgment, of tact, and of common sense, he was not even fit to be entrusted with ..... he was simply the servant of the corporation. .... In regard to the rural cases Mr. Craven had been in the habit of telegraphing and telephoning and ordering the ambulance about at all sorts of inconvenient and unnecessary times. .... There were many instances in which the unwarrantable and presumptuous interference of Mr. Craven must be stopped .....," and so on. "Mr. Craven must accept and obey." After these flowers of speech the orator sat down and was followed by Mr. Alderman Monkhouse who said that he thought Mr. Craven was perfectly right. He was right in calling attention to the matter, for there might be misunderstanding about the minute unless it was made more intelligible. Finally, as we have said, the minute was sent back. Mr. Craven has issued a special report wherein he states that, as a rule, the ambulance is ordered by the inspector

of nuisances and has only been ordered about 20 times by himself, generally on Sundays, bank holidays, and Saturdays. He gives instances to prove this. With regard to Mr. Braithwaite's lucubrations, we have not much to say, but, as a rule, people who are so ready to talk about impertinence and unwarrantable and presumptuous interference will generally be found to be in the wrong. Mr. Craven may be the servant of the corporation. We take it Mr. Braithwaite and the whole council are but the servants of the ratepayers. There is no disgrace in service—it is an honourable position, though Mr. Braithwaite evidently thinks otherwise. It seems to us that a simple way out of the difficulty would be to word the minute after an amendment which was proposed by Mr. Alderman Monkhouse but withdrawn, to the effect that the ambulance should not be removed without notice being given to the inspector or left at his office. As a rule, of course, it would be the inspector's duty to visit the house where the case of infectious disease was and to arrange for removal if this was considered necessary by the practitioner in attendance and the medical officer of health. But in emergencies, such as the case quoted by Mr. Craven, it is ridiculous to have a hard-and-fast rule the strict keeping of which might entail much danger, to say nothing of expense.

#### THE DRUCE CASE.

THE action by which Mrs. Druce, a widow, sought to disestablish the will of her late father-in-law, Mr. T. C. Druce, and to establish the story that he survived his death in 1864 and remained alive as the fifth Duke of Portland until a much later period, has been heard and concluded. The surviving executor of Mr. T. C. Druce was able to prove his will "in solemn form," bringing conclusive evidence that he duly made it and that he beyond all question died at the date alleged. The defendant was fortunate in being able to prove with such abundant clearness the death in 1864, which was the point upon which the whole of Mrs. Druce's case turned. Both Dr. Edmund Shaw and Mr. William Blasson, who so long ago were in partnership at Edgware and Mill Hill and attended the deceased, are alive, and their memory of a case, which must have been of some importance in the early career of two young practitioners, was perfectly clear. The deceased died from gangrene and erysipelas following operations rendered necessary by a succession of abscesses in the rectum and performed by the late Sir William (then Mr.) Fergusson. Dr. Shaw, who gave his evidence on commission, had particularly good reason to remember the occasion, as, in addition to the other circumstances, he himself contracted blood-poisoning in dressing his patient's wounds, as also did one of the nurses. Dr. Shaw also helped to carry out his own directions rendered necessary by the condition of the body, a condition which accounted for burial taking place without delay. These included the saturation of a sheet with chloride of lime, in preparing which Dr. Shaw was assisted by a nurse-housekeeper of the deceased. This lady also survives and she went into the witness-box and gave her own account of incidents no doubt indelibly impressed upon her memory. Mr. Blasson, Dr. Shaw's partner, who was present at the operations and saw the deceased at a time when his recovery was hopeless, gave evidence before the jury, while the nature of the facts which have encouraged Mrs. Druce in her persistent, and no doubt genuine, belief in the singular story which she has woven round her dead father-in-law is well exemplified in some of the questions which she put to Mr. Blasson in cross-examination. She dwelt, for example, with emphasis, as if it was a circumstance fraught with dire suspicion, on his having no books containing records of the case in question, receiving

<sup>1</sup> THE LANCET, June 26th, 1897, p. 1730.

naturally replies to the effect that he had no reason to keep books relating to his patients of nearly 40 years since in a practice at a place which he had quitted 10 years ago. Again she laid considerable stress upon the fact that the certificate of Mr. Druce's death did not bear the signature of Dr. Shaw, Mr. Blason, or any other medical man, asking whether in this respect it was not a unique document. The answer to this was given by another witness and by counsel, who pointed out that the signature of a medical practitioner who has attended the deceased has only been necessary since the Registration of Births and Deaths Act of 1874, so that in cases of registration at the period when Mr. Druce died no such signature is to be expected. We need not comment on the plaintiff's further allegation that one of the witnesses to Mr. T. C. Druce's will, then an elderly partner in a firm of solicitors, is not dead, but, having been for some years employed as a stoker in the underground labyrinths of Welbeck Abbey, is now keeping a lodging-house in London! It is certain that whatever defects may exist in our system of death registration, or existed in it before 1874, the decease of the late Mr. T. C. Druce has been proved with a singular conclusiveness that must be convincing to all but Mrs. Druce herself.

#### THE METROPOLITAN WATER-SUPPLY.

THE report on the condition of the metropolitan water-supply during the month of October has recently been issued by the Water Examiner appointed by the Local Government Board. The Thames water at Hampton, Molesey, and Sunbury was in good condition during the whole of the month. The height of the river varied from a point two inches above to one nine inches below the average summer level. The average daily supply derived from the Thames was 128,511,523 gallons, from the Lee 34,635,700 gallons, and from "springs" and wells 50,612,198 gallons. "Springs" and wells are mentioned in the report every month. There are springs at Hampstead and Highgate which to some extent supply the ponds the water of which is distributed by the New River Company for non-domestic purposes to the average daily amount of 68,839 gallons. These springs are obviously not included in the estimate of the water derived from "springs" and wells which is used for domestic purposes. We are certainly under the impression that the spring at Chadwell is the only one which at the present time yields water which is used by a metropolitan water company. More than one spring possibly opens into the Chadwell basin. The daily average amount of water used during the month was 213,828,330 gallons, which represents a daily average of 33.99 gallons per head for a population estimated at 6,290,974. The amount used per head daily during the month, except in the case of the customers of the West Middlesex Company, was less than that used in the corresponding month of last year. The total number of supplies furnished by the water companies during the month was estimated at 935,133 and this shows a daily average of 229 gallons for each such supply. The companies which are now credited with giving a constant supply to all their customers are the Chelsea, the East London, the Grand Junction, and the West Middlesex. The Lambeth Company do not profess to give constant service to more than 77.3 per cent. of their clients. A very slight improvement only has taken place in this respect during the last year. In October, 1900, the proportion of constant supplies was 75.6 per cent. The water rents which this company are allowed to charge are very high and the people who have the misfortune to live within the area of their supply are not well treated. The inconveniences attending an intermittent supply are well known and need not be here insisted upon, but the company give also other

grounds for complaint. During the month of October "the water of the Lambeth and East London Companies exhibited the deepest average tint of brown," or in popular parlance was the "dirtiest water." The Water Examiner also says that according to the statements of the chemists who report on behalf of the companies "the water of the Lambeth Company showed the highest average amount of organic carbon." The East London Company during the month obtained a supplementary supply from the Southwark and Vauxhall Company. The amount so obtained if spread over the whole of the month was equivalent to an average daily supply of 7,120,677 gallons. The Battersea station of the Southwark and Vauxhall Company is, of course, still in use. The results of a daily examination of the water distributed from Battersea might prove of interest. Dr. T. E. Thorpe, F.R.S., the analyst appointed by the Local Government Board, gives as a result of his examination of samples collected on Oct. 7th the information that as regards organic impurity the waters supplied should, judged from one single analysis of each, be placed in order of merit as follows: New River, Kent, Chelsea, Southwark, Grand Junction, Lambeth, West Middlesex, and East London. Dr. Thorpe speaks of the supplies given by the New River and by the East London companies as Lee-derived waters, and although the matter is not one of paramount importance it seems unnecessary to perpetuate an erroneous nomenclature. During the month of October considerably less than half of the water distributed by the East London Company was derived from the Lee. The amount obtained from the various sources gave the following daily average:—From the Lee and storage, 12,398,000 gallons; from the Thames, 16,058,000; from wells, 12,000,000; from Hanworth "springs," 1,595,000. The fact that the New River water is very largely derived from wells has been recently pointed out in THE LANCET. It does not appear from the report by whom the selection is made of the samples of water which are analysed by Dr. Thorpe. We do not remember to have seen an analysis of either (1) the water supplied from the East London Thames station during a period in which the river was in flood, or of (2) the water supplied from the Grand Junction Hampton station—that is to say, the local supply which is pumped directly to the neighbourhood.

#### THE CAUSATION OF CANCER.

IN THE LANCET of Dec. 7th (p. 1578) we published a paper entitled "Excess of Salt in the Diet a Probable Factor in the Causation of Cancer," by Dr. James Braithwaite. Dr. Braithwaite candidly admits that he has not produced absolutely conclusive proof of it, but merely offers the suggestion that salt is the essential factor in the etiology of cancer. His strongest argument is that malignant disease is unduly prevalent at Malton and Pickering, where the main articles of food would appear to be beef and bacon, a diet containing an excess of salt. An argument of this nature, however, would require considerable support before it would have any weight. A similar course of reasoning has been followed with regard to other conditions (e.g., anæmia) without success. The main point raised by Dr. Braithwaite, however, is that cancer is extremely rare amongst the Jews, and he offers the suggestion that this is to be explained by the fact that the Jews take less meat (beef) than the Gentiles and entirely refrain from bacon and ham, and consequently consume less salt. We believe, however, that a more systematic and widespread inquiry would show that cancer is not so uncommon amongst women and men of Jewish birth as has hitherto been supposed. Inquiries which we have ourselves made support this contention. Some years ago a similar view was held with regard to pulmonary tuberculosis, but all physicians attached to the special chest

hospitals, especially these in the East-end of London, would be able to bear witness to having met with many cases of that disease in the numerous Jewish patients attending the out-patient departments. Dr. Braithwaite's contention, however, may be of value as suggesting inquiries by other observers as to proof or otherwise of his theory. In a letter which we publish in another column Dr. Tucker Wise makes statements supporting Dr. Braithwaite's theory.

#### OBJECTIONABLE ADVERTISEMENTS.

WE called attention in an annotation last week to certain disgusting advertisements appearing in *Leach's Family Dressmaker* and *Leach's Children's and Young Ladies' Dressmaker*. In doing so we pointed out that respectable firms should not allow their advertisements to appear in juxtaposition to filthy invitations to buy vaginal douches, contraceptive powders, rubber preventives, and emollients specially prepared for the anointment of the same. We are glad to learn that Messrs. Allen and Hanbury immediately withdrew their advertisement from *Leach's Children's and Young Ladies' Dressmaker*. This is exactly the course we should have expected from a firm of their high position, and we trust that their action will lead to imitators. Whenever a firm of repute and position finds that advertisement columns which they use are being prostituted the firm should withdraw its support from the paper. In this way the fact will be brought home to editors and proprietors of newspapers who are careless of public morality that dirty money gained means clean money lost. Then reform of the advertisement columns will follow. We commend the promptitude of Messrs. Allen and Hanbury to the notice of others.

#### AUTO-INTOXICATION AS A CAUSE OF GENERAL PARALYSIS.

DR. JOHN MACPHERSON, Commissioner in Lunacy for Scotland, contributes a brief critical article to the December number of the *Edinburgh Medical Journal* dealing with the subject of auto-intoxication as a cause of general paralysis, which opportunely indicates the present stage of the question. The thesis that syphilis precedes in the great majority of cases the appearance of symptoms of general paralysis is accepted as substantially correct and it is pointed out that the course of general paralysis itself is marked by the recurrence of febrile attacks "during which there is reason to believe that hyperleucocytosis occurs." The febrile reaction and the leucocytosis are regarded as pointing conclusively to a toxic infection of the system. The remittent character of the fever shows either that the toxin is regularly discharged from the system or that the body acquires periodical immunity from its influence. The occurrence of gastro-intestinal disturbances in the course of the disease is due to the fact that lesions are developing in the mucous membranes of the intestines such as have been pointed out by various observers. The view that these lesions are trophic and secondary to changes in the nervous system is regarded by Dr. Macpherson as being untenable. The symptoms of vaso-motor disturbance and sudden losses of nervous function which are characteristic of the early stages indicate also the probable action of a toxic agent, and there is every indication that such toxæmia arises from the alimentary canal and is, in fact, a form of auto-intoxication. Reference is made to the clinical observations of Dr. Lewis Bruce of Perth on general paralytics as regards the temperature changes and leucocytosis and to the occurrence of lesions (inflammatory and necrotic) in the mucous membranes of the intestines described by Dr. W. Ford Robertson of Edinburgh, and it is argued that a parallelism might be observed between auto-intoxication on the one hand and the fever and degree

of leucocytosis on the other. The auto-intoxication might be due to a virulent activity of the bacillus coli communis or other intestinal microbes the rôle of which demanded further investigation.

#### THE NOBEL PRIZES.

THE late Mr. Alfred Nobel, who, as is well known, was the inventor of dynamite and thereby realised a large fortune, bequeathed by his will certain sums of money to provide a fund out of which should be paid prizes to persons who might be considered most eminent in various branches of science or in the cause of peace. The award for 1901 was declared on Dec. 10th. The Peace prize, value 150,000 kronen, was divided equally between M. Henri Dunant and M. Frederic Passy. M. Dunant, as our readers may know, was the founder of the International Red Cross Society. Some years ago it was reported that he was in rather reduced circumstances, so that the sum awarded to him is not only a slight recognition of his labours for the good of his fellow-creatures but will help to make his declining days pass more pleasantly. Other prizes of the value of 200,000 kronen respectively were awarded to Dr. Emil Behring of Halle for medicine, mainly, we take it, on account of his work as regards diphtheria; to Professor Jakobus van't Hoff of Berlin, for chemistry, who is so well known for his researches into the process of solution; and to Professor Wilhelm Roentgen of Munich for physics. In literature M. Sully Prudhomme was adjudged the winner.

#### ARTERIO-SCLEROSIS AND BRAIN DISEASE.

AN important discussion on Arterio-sclerosis and Brain Disease, which took place at the recent annual meeting of the New York Medical Association held at the New York Academy of Medicine, is reported in the *Medical News* of Nov. 2nd, 1901. In introducing the discussion Dr. Charles E. Nammack of New York said that the causes of arterio-sclerosis were, in addition to the acute infectious diseases, certain chronic intoxications such as are produced by gout, lead-poisoning, alcohol, or syphilis. The initial period of the disease was marked by a contraction of the peripheral blood-vessels. Without this arterial degeneration did not develop. Over-feeding was a frequent cause of arterio-sclerosis, and worry and cerebral overstrain tended to premature sclerosis of the cerebral arteries. Physicians were especially prone to suffer from cerebral overstrain and arterio-sclerosis. The death-rate among practitioners in New York was only surpassed by that among saloon-keepers, butchers, quarrymen, and factory operatives. Medical men died particularly from three diseases connected with arterial degeneration—Bright's disease, cardiac disease, and cerebral apoplexy. Among the early symptoms of arterio-sclerosis were distress in the region of the heart, sudden disinclination for work, and headaches of sudden onset. Cessation from work, abstemious diet, giving up alcohol, and the adoption of quiet open-air occupation were the therapeutic indications. Dr. Delancey Rochester pointed out that the fibroid changes in the arteries obstructed the freedom of outflow of the blood, and the extra work thus thrown on the heart tended to bring about hypertrophy and fatty degeneration of the myocardium. The involvement of the coronary arteries led to attacks of angina pectoris. Epigastric pain was one of the early symptoms present in cases of arterio-sclerosis, and this led to the diagnosis of gastritis when the real condition was vascular degeneration. He preferred to use cactus and valerian in treatment, avoiding the use of digitalis, which was a dangerous drug in arterio-sclerosis. The diet must be carefully regulated and when heart-compensation was failing the patient must be put to bed. In the latter case the use of passive and resisted movements as employed by Schott at Nauheim

was of great importance and the best cardiac tonic was strychnine. Dr. E. Lefevre contended that the conditions that developed with cardio-vascular degeneration and renal cirrhosis were evidently to be classed together, the most important factor being a hereditary predisposition to early degeneration of the arteries. On the basis of predisposition chronic poisons, such as alcohol, lead, and syphilis operated as factors of exceptional potency.

#### MEDICAL APPOINTMENTS TO THE PRINCE OF WALES'S HOUSEHOLD.

His Royal Highness the Prince of Wales has been pleased to make the following medical appointments to His Royal Highness's Household:—Physicians-in-Ordinary: Sir William H. Broadbent, Bart., K.C.V.O., M.D.; Sir James Reid, Bart., K.C.V.O., K.C.B., M.D.; and Sir Francis H. Laking, K.C.V.O., M.D. Surgeons-in-Ordinary: Sir Frederick Treves, K.C.V.O., C.B., F.R.C.S., and Mr. Herbert W. Allingham, F.R.C.S. Honorary Physicians: Dr. Robert W. Burnet and Dr. Samuel J. Gee. Surgeon Apothecary to His Royal Highness's Household-in-Ordinary: Sir Francis H. Laking, K.C.V.O., M.D. Surgeon Apothecary to His Royal Highness the Prince of Wales and to the Household at Sandringham: Dr. Alan R. Manby, M.V.O. Chemist and Druggist: Mr. Peter Wyatt Squire.

#### THE FUNERAL OF SIR WILLIAM MACCORMAC.

THE funeral of the late Sir William Mac Cormac was held on Dec. 9th, the first part of the Office being sung at the Church of St. Peter, Vere-street, W., the Rev. Canon Page Roberts being the officiant. The body arrived at the church at 11 A.M. and the hearse containing it was followed by the mourning-coaches in which were Lady Mac Cormac, Miss Mac Cormac, Mr. Henry Mac Cormac, Mr. J. Mac Cormac, and the other chief mourners. At the church General Sir Andrew Clark represented the King, representatives of the French and German Embassies, with the French Consul-General being also present. The Royal College of Surgeons of England were represented by Mr. Henry G. Howse (President), Mr. Thomas Bryant, Mr. Henry T. Butlin, Mr. W. Watson Cheyne, Mr. Reginald Harrison, Mr. John Langton, and Mr. Alfred Willett, and Professor Charles Stewart, the Conservator of the Hunterian Museum, was also present. The Royal College of Physicians of London were represented by Sir William Selby Church (President), Sir Dyce Duckworth (treasurer), and Dr. Edward Liveing (registrar). Dr. Hector Mackenzie represented the physicians on the staff of St. Thomas's Hospital, and most of the surgeons on the staff were present, including Mr. Henry H. Clutton, Mr. Bernard Pitts, Mr. George Henry Makins, Mr. William Henry Battle, Mr. Charles A. Ballance, Mr. Francis C. Abbott, and Mr. Cuthbert S. Wallace, while the matron and the assistant matron represented the nursing staff. The French Hospital also sent a deputation, while the Army Medical Department was represented by Surgeon-General Henry Skey Muir, C.B. Various other institutions and departments were represented, such as the Navy Medical Service, the Italian Hospital, the University of London, the Irish Medical Schools and Graduates' Association, and the Leathersellers Company. The British Red Cross Society were represented by Lord Lister, Viscount Duncannon, and Viscount Knutsford. Among friends were Sir John Furley and Lady Furley, Sir William H. Broadbent, Sir Samuel Wilks, Sir John Williams, Mr. Walter Tyrrell, Mr. Alfred D. Fripp, and many others. A very large number of wreaths had been sent by various societies and friends. The first part of the Order for the Burial of the Dead having

been sung in the church, the body was replaced in the hearse and taken to Kensal Green for interment, where the prayers of committal were said by Canon Page Roberts. The coffin bore the inscription: "William Mac Cormac, born Jan. 17th, 1836; died Dec. 4th, 1901."

#### THE TUBE PROBLEM.

At a meeting at the Auctioneers' Institute on Dec. 4th Mr. S. M. Freeman, K.C., read a paper upon the Tube Problem, which possessed many points of interest to medical men, whether citizens of London or not. For electric underground traction is likely to play a part in urban development everywhere. Mr. Freeman pointed out that the legal position of freeholders within 100 yards of any line of tubes should be placed upon a more certain foundation than at present existed, also the right to compensation for damage to property by owners within the same area should be secured, whether from the construction or working of the line. His declaration that the assurances given that no possible damage would be caused by the construction of the Tube Railway had not been realised will be fully endorsed by most of the occupants of five miles of houses along the line of route. In the discussion which followed the usual references were made to the immunity from trouble enjoyed by the South London line. Without attempting to offer any opinion as to the cause of the vibration, which it is evident the able men responsible for the planning of the line were unable to foresee or avoid, we may venture the suggestion that the two lines are not comparable. In the case of the South London line, which we believe is laid much nearer to the surface than is the case with the Central London Railway, the waves of vibration would radiate to the surface within a very limited area, probably exceeded by the width of the roadway. Again, no comparison is possible between the damage to property caused in the construction of the two lines in view of great difference in the physical features of the districts through which they pass. As pointed out at some length in an article which we printed in our issue of May 12th, 1900, on the construction of the Central London Railway, the alteration in the level of the subsoil water following the course of the tube is one of the principal causes of all the damage done to property along its course. For this reason any line running east and west, as is the case with the Central London Railway, would cut across the natural drainage subsoil water flowing to the Thames—which a railway running north and south like the South London line would probably avoid. In the case of the Central London Railway it was maintained that no water could come externally in contact with the tube, but this, like some other rash statements made in connexion with the undertaking, is disproved by the liberal use of sawdust on some of the stairways and stations for the purpose of absorbing the water that soaks through. We are far from being oblivious to the great advantage that tube railways are likely to prove to the travelling public, but while matters are more or less in the experimental stage it would be disastrous if London were "rushed" by company promoters without very deliberate consideration on the part of the responsible authorities. The suggested scheme for shallow underground tramways proposed by the London County Council is free from many of the objections inseparable from lines laid at a great depth. The great advantage which the former possess of providing a chamber giving ready access to the maze of pipes, cables, and sewers with which every large town is provided and thereby obviating the necessity for opening the roadway to correct every small defect is one not to be lost sight of. It is also probable that the difficulty of vibration experienced in the case of the Central London Railway would in the case of light tramways be overcome, but of course this remains to be proved. From

a medical point of view this question of vibration is so important, the suffering to invalids and to persons confined to their houses being so real under the constant little jars and disturbances, that the medical profession may be depended upon, whenever a tube scheme is under consideration, to use their influence in compelling the promoters to take all possible precautions.

#### THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Cape of Good Hope received at the Colonial Office on Dec. 4th states that for the week ending Nov. 30th the cases of plague in the Cape Peninsula numbered 0. At Port Elizabeth the cases were as follows: Europeans, 1; coloured persons, 1; all other places, 0. There were no deaths from plague anywhere in the colony. The cases of plague in persons under naval and military control numbered 0. 5 cases of plague have been discovered at Mossel Bay during the week, but owing to absence of particulars of age and sex they have not been included in the above return. Of these 5 cases of plague 3 proved fatal. As regards Egypt, during the week ending Dec. 1st 2 cases of plague and 3 deaths from the disease have been reported throughout Egypt; these cases and deaths all occurred among natives at Zifteh. During the week ending Nov. 24th a man was found dead out of hospital at Zifteh, and on examination he was found to have died from pneumonic plague. A few days afterwards his wife, and subsequently his mother-in-law, were taken ill and eventually both died from pneumonic plague. These 2 women had nursed the man during his illness. As regards the Mauritius, a telegram from the Governor received at the Colonial Office on Dec. 6th states that for the week ending Dec. 5th there were 52 cases of plague, of which 37 were fatal.

#### CELEBRATION OF VIRCHOW'S BIRTHDAY IN BRAZIL.

PROFESSOR VIRCHOW'S eightieth birthday was celebrated with much enthusiasm in the important maritime city of Bahia in Brazil. In honour of the occasion a very numerous public meeting was held on Oct. 13th, the company present including the Governor of the State, the President of the Municipal Council, the German Consul, and the Director of the Schools of Medicine, Jurisprudence, and Engineering. The arrangements were made by the Gremio dos Internos dos Hospitais da Bahia, an association of the internes of the hospitals, and the meeting took place in the handsomely decorated hall of the Gremio Literario. M. Pontes, the president of the association, opened the proceedings with an address, after which the Governor of the State took the chair. Professor Juliano Moreira, speaking in the double capacity of a member of the medical profession and one of the editorial staff of the *Gazeta Medica* of Bahia, gave a comprehensive review of Professor Virchow's achievements, not only as a physician and a pathologist, but also as a biologist and as a *savant* whose methods of research had influenced every branch of human knowledge. He concluded by reading aloud a Latin address to Professor Virchow written on parchment for the purpose of being sent to him. M. Paranhos, speaking in the name of the *Revista do Gremio*, gave a sketch of the vast amount of work which Professor Virchow had contrived to crowd into the space of 60 years. Addresses were also delivered by M. Oscar Freire, representing the Gremio dos Internos, and by Dr. Egas Moniz, speaking in the name of the Gremio Literario and of a number of German journals of Paraná and Rio Grande do Sul. Poems in honour of Germany and Professor Virchow were recited by the last-named gentleman and by M. Damasceno Vietra, after which the national airs of Germany and Brazil were played by the band. The October issue of the *Gazeta Medica* of Bahia, the *doyen* of the medical press

of North Brazil, is entirely a "Virchow number," in which the life and work of the venerable *savant* are treated in six elaborate articles by Professor Juliano Moreira, Dr. Alfredo de Andrade, Professor Pacifico Pereira, Dr. Americo Fróes, Professor Matheus dos Santos, and Dr. Afranio Peixoto. The *Revista do Gremio dos Internos dos Hospitais* has also published a special Virchow number.

#### MEDICO-LEGAL SOCIETY.

At a meeting held at 20, Hanover-square, W., on Dec. 5th it was unanimously resolved to form a medico-legal society. Dr. F. J. Smith, who presided, explained how the meeting came to be held and the objects aimed at in proposing the society, which would, no doubt, be an advantage to medical men and lawyers by extending consideration to every question involving medical and legal matters. He also read letters from Dr. Harvey Littlejohn, Dr. Wynn Westcott, and others supporting the movement. On the motion of Dr. W. R. Smith, seconded by Dr. R. L. Guthrie, a committee was appointed to draw up a set of rules, to arrange for the next meeting, and to enlist members. Those who are willing to join the society are invited to send their names to Mr. McCallin, Reading Rooms, Inner Temple.

#### THE SMOKE NUISANCE.

As everyone knows, fogs are inevitable owing to climatic conditions, but London fog is rendered direful by the amount of smoke—i.e., the products of the imperfect combustion of coals—which it contains. The dirty portion of these fogs consists of soot and various tarry matters and the irritating portion of sulphuric and sulphurous acids. All these nuisances were well exemplified in the fog which hung over the Thames valley on Nov. 16th. The Public Health Acts only deal with black smoke emitted from chimneys other than those of private houses, and even when the owners of such chimneys are summoned the regrettable laxity of magistrates very often permits them to escape either scot-free or else upon payment of a most inadequate fine. However, the action of the Coal Smoke Abatement Society and perhaps our own oft-repeated protests have certainly done something to improve the conditions of factory chimneys. As we have said over and over again, no silly excuse with regard to the difficulty of getting Welsh coal should be allowed to weigh for one minute. It is quite easy to arrange a factory furnace so that it can burn bituminous coal and yet cause no foul smoke. Witness the case of Nottingham, where manufacturers found it better for their pockets that their chimneys should be smokeless. But the great offenders in the matter of emitting dirty smoke are undoubtedly the chimneys of private houses. We will not consider the question of stoves, for though they would undoubtedly cure the evil yet we confess, in company with most of our fellow-countrymen, to a general preference for an open grate. There are, however, two simple methods of having a smokeless fire—or rather a fire emitting clean smoke—in an open grate. The one is to burn coke and the other is to burn anthracite. At the recent Congress of the Royal Institute of Public Health held at Eastbourne Sir C. A. Cookson, K.C.M.G., read a most interesting paper entitled "A Smokeless London." In it he advocated very strongly the claims of one of the two methods which we have mentioned above. He has made a personal trial of burning either coke or anthracite in an ordinary grate during two successive winters and finds that by the simple expedient of having a Bunsen burner underneath the grate the fire can be easily and cheaply lighted or relighted even at the present price of gas. Such a fire is bright and cheerful. The only objection which we can see to the adoption of this method is that at present there is not enough of anthracite or of coke on the market to supply a general demand for either,

but probably this difficulty could be overcome. A beginning might be made with the domestic kitchen, and another point to which the direction of the London County Council might well be directed is the case of the numerous new houses and flats which are constantly arising. No grate of any kind should be allowed in them which is not constructed so as to burn either coke or anthracite. We do not ask the average householder to consider matters of health, for the average householder does not care two straws about anybody's health except his own, but we do ask him to consider how much he would save in paint and in bills for cleaning if the atmosphere in which he lived were more like that of a small Italian town instead of being like the fumes from Tophet. Sir Charles Cookson's suggestion seems to us to be practical and might well be tried.

#### THE WORKING OF THE INEBRIATES ACT.

AN important paper on the Working of the Inebriates Act is contributed by Mr. John Carswell of Glasgow to the October number of the *Journal of Mental Science*. The Inebriates Act as passed was an attempt on the part of the Legislature to provide for the control of persons who were, in Mr. Carswell's opinion, "adjudged to be criminal, who were yet not to be punished for crime but treated for disease." But the class of offences scheduled in the Act, four convictions for which might bring a person within the scope of the Act if he were also a habitual drunkard, limited its operation practically "to the street pest, drunken prostitute, and thief, and the drunken flotsam and jetsam of our towns." The expectations of the Government were high-pitched, especially as regards inebriety in Scotland, but the operation of the Act had not justified such expectations. Thus, in Glasgow the number of persons convicted three times and over for offences under the Act for the year ending June 30th, 1901, was: males, 41; females, 139; total, 180, of whom 26 were over 50 years of age. In London the number of similar convictions at the police-courts was: males, 161; females, 258; total 419. The London County Council and the Glasgow Corporation were, as far as Mr. Carswell knew, the only two municipal bodies which had directly undertaken the work of establishing and maintaining reformatory under the Act. The London County Council scheme comprised provision at Farmfield, near Horley (Surrey), for 33 females, provision for Roman Catholic women at St. Joseph's, Ashford (Middlesex), and an arrangement with Lady Henry Somerset for the reception of a few female inebriates at Duxhurst, Surrey. This last arrangement was about to cease, but the Council had in hand the erection of further buildings at Horley for 80 female patients to replace the present accommodation. The number of persons under the care of the London County Council in July, 1901, was 108, all females, and at Brentry Homes, Bristol, there were 25 males and 125 females, making a total for England of 258. These, with a few additional patients in Duxhurst and a few who had been under care and discharged, brought up the total for England to nearly 300 persons committed under the Act, almost all females. In the Glasgow Corporation home there were 16 female patients. These figures referred only to persons committed under the Act, and took no account of voluntary residents in retreats or other institutions. A State reformatory had been set up in Scotland, but so far there had been no committals. Of the 16 female patients at the Glasgow home all had been more than once in prison and nearly all in poor-houses. They had all lived loose lives, many of them were prostitutes, and several had had syphilis. "With perhaps two exceptions out of the 16 they were all living loose, degraded, idle, and abandoned lives, and drunkenness only played a part in the general degradation." Such patients had not only to be cured of their degraded habits but would have to be placed on their discharge in

fresh social surroundings to expect any good results—a very difficult matter to accomplish. Habitual criminals, vagrants, and prostitutes were generally of intemperate habits, and these were the persons who fell most readily into the meshes of the Act. There was a widespread disappointment that the Act did not deal with the non-criminal and non-vagrant inebriate—the class that called most urgently for treatment. A satisfactory Inebriates Act ought to embrace provision for three distinct classes of persons who were sources of danger and expense to society—viz., first, vagrants, paupers, and prostitutes; secondly, inebriates convicted of offences but not belonging to the first-named class; and, thirdly, inebriates of the non-criminal class; and it was to be hoped that further legislation would follow.

#### THE SITUATION AT THE MACCLESFIELD INFIRMARY.

THE honorary consulting physicians and surgeons of the Macclesfield Infirmary having met the governors of the institution at a private conference upon the situation have supported their professional colleagues, and as a result, the governors have decided to fall in, upon all essential points, with the views of their honorary medical staff; the junior house surgeon, however, who was elected by the governors in opposition to the wishes of the honorary medical staff, who did not consider that the post was one which a woman could fill either conveniently or adequately, has refused to resign her position. At a meeting of the governors held on Wednesday last the following resolution was passed:—

"That the honorary medical staff be asked to withdraw their resignations and that Miss Clarke be released from her promise to stay 12 months."

The resolution, as we read it, simply places the matter *in statu quo*, for the honorary medical staff certainly cannot give way.

#### "THE ADVANTAGES OF A TRACE OF ALBUMIN AND A FEW TUBE CASTS IN THE URINE OF CERTAIN MEN ABOVE 50 YEARS OF AGE."

UNDER this paradoxical title Professor William Osler has contributed a valuable article to the *New York Medical Journal* of Nov. 23rd. The successful business man, who lives intensely, strives hard for wealth, takes plenty of good food three times a day, with two or three glasses of spirits, and smokes from six to ten cigars, works in blissful ignorance that his bodily mechanism is in some respects similar to that of the steam-engine. His supply of "fuel" is out of proportion to the "energy" liberated. "Careless stoking" with high pressure for 25 years means early degenerations, and "the waste-pipes"—the kidneys—are often the first to show signs of ill-usage. He receives a rude shock when his insurance company declines to allow him to increase the amount of his life policy because of a "slight trace of albumin and a few tube casts in the urine." However, if at 50 he follows good advice, restricts his diet, gives up alcohol, and resigns his position on six or eight boards, the discovery of the albuminuria will be a great benefit. Professor Osler refers to the case of a distinguished public man in Canada in whose urine albumin and casts were accidentally discovered. He was nearly 60 years of age, lived a very active life, and was careless in eating and drinking. A consultation was held with the late Sir Andrew Clark who took a sombre view of the case. After a year's rest the patient resumed work. He is now a vigorous nonagenarian. Professor Osler points out that in men in the fifth and sixth decades albuminuria is by no means infrequent and not always serious. It is probably the expression of pre-senile changes in the kidneys, the result of arterial degeneration (the "renal inadequacy" of Sir Andrew Clark). The albuminuria and the number

and variety of the casts are not of as much importance in prognosis as are other factors. The facts indicative of serious disease are: (1) persistent low specific gravity of the urine (1008 to 1012); (2) marked arterial sclerosis with the apex beat an inch or two outside the nipple line and a ringing accentuated aortic second sound; and (3) albuminuric retinitis. A trace of albuminuria and a few casts are the danger signals. Professor Osler quotes approvingly Aphorism 13 of George Cheyne's "Essay on Regimen." "Every wise man after 50 ought to begin to lessen at least the quantity of his aliment; and if he would continue free of great and dangerous distempers and preserve his senses and faculties to the last he ought every seven years to go on abating gradually and sensibly and at last descend out of life as he ascended into it, even into the child's diet." Very similar advice is given by Sir Henry Thompson in his work on diet, the second edition of which we recently reviewed,<sup>1</sup> and the author in his own person bears eloquent testimony to the value of moderation in diet.

#### SYMMETRICAL GANGRENE FOLLOWING PNEUMONIA.

At the meeting of the Société Médicale des Hôpitaux of Paris on Oct. 18th Dr. Henri Dufour described a case of this very rare complication of pneumonia. A woman, aged 58 years, had double pneumonia. Some days after recovery there was generalised polymorphous erythema. Then gangrenous patches appeared on the fingers, the toes, the tip of the nose, and the lobules of the ears. There was no precedent "local syncope or asphyxia," but almost from the first vesicles filled with turbid fluid appeared. Suppuration followed. The patient had much albuminuria and died from purulent infection. At no period did pulsation cease in the peripheral arteries. Bacteriological examination of the blood during life was negative. At the necropsy the lungs and heart were found to be healthy. There was pus in the left knee-joint. The peripheral nerves were found to be normal. Portions of the integument of the most affected finger—the left index—were removed and examined. The tissue was crowded with leucocytes. The arterioles of the preparation were not obliterated, but the venules were in a state of phlebitis. Dr. Dufour's explanation of the gangrene is that it resulted from the action of toxins on the cells of the peripheral parts, which were the most vulnerable in consequence of the circulatory difficulty at the greatest distance from the heart. Whenever the circulation is embarrassed the extremities are in danger of gangrene, as is shown by the cases of pericarditis reported by M. Widal in which "local asphyxia" occurred. The vulnerability of the most peripheral parts has been shown experimentally by M. Phisalix. On placing a microbial culture contained in a collodion capsule in the peritoneal cavity of a guinea-pig he found that symmetrical gangrene of the extremities (including the nose and ears) was produced. In the discussion which followed M. Widal pointed out that symmetrical gangrene of the extremities might occur independently of Raynaud's disease and might result from various pathological states. He referred to a case which he reported at the last International Medical Congress in which symmetrical gangrene followed suppurative pericarditis with great effusion. This point requires to be emphasised, for some English writers seem to regard the term "symmetrical gangrene" as synonymous with "Raynaud's disease." Now Raynaud's disease is essentially a vaso-motor affection of persons whose peripheral circulation is unduly susceptible to cold. In its typical form the fingers and other peripheral parts become first pale (local syncope) and then blue (local asphyxia), and in severe cases gangrene may follow. Symmetrical gangrene is thus simply a result of Raynaud's disease. But as

in the cases of Dr. Dufour and M. Widal related above symmetrical gangrene may occur quite independently of Raynaud's disease.

#### SMALL-POX IN LONDON.

THE latest returns show a decrease in the number of cases of small-pox as compared with those of last week. Thus on Saturday, Dec. 7th, there were 19 fresh cases notified and removed; on Sunday, Dec. 8th, the number was 11; on Monday, Dec. 9th, there were 18 fresh cases; on Tuesday, Dec. 10th, there were 9 fresh cases; and on Wednesday, Dec. 11th, there were 15 fresh cases.

#### RATS AND PLAGUE.

THE decision of the Turkish Government to require a "certificate of rat-destruction" before any vessel arriving at Constantinople from an infected port is allowed to discharge, as noted in the *Board of Trade Journal* of Nov. 21st, is a distinct advance in preventive medicine, and is rightly based, as Professor Koch has well pointed out that such measures should be, upon recently acquired knowledge as to the causation of the disease. Reliance upon certificates, however, is not to be absolute, and vessels from infected places, though permitted to operate in the port, are not allowed alongside the quays, while vessels not provided with certificates have to go to a lazaret to discharge, as "rat-destruction" can only be properly secured in an empty ship. The Order in Council for Western Australia of April 3rd is equally stringent. Section 10 prescribes that all rats on ships coming from any place or country where bubonic plague is known or suspected to exist shall be immediately destroyed; that all rats in every store, warehouse, or other building under the control of the railway, customs, and harbours department at the ports of the colony shall be destroyed; that complete precautions shall be taken to prevent rats coming ashore from any ship in any port of the colony; and that the local boards of health at all the ports and towns of the colony shall take the necessary steps to have the rats in such ports and towns destroyed. The wise precautions of Australia, as those of Turkey would seem to be, were prompted by actual experience, but Europe, though for the most part at present free from plague, might profitably adopt in advance for international protection those measures which the unfortunate experience of these two countries has shown to be essential. The policy of "rat-destruction" on all trading vessels has been found simple of attainment in Australia, and if adopted by every nation need cause little or no interference with trade, for when owners once recognised its necessity they would readily arrange for the destruction of rats by fumigation at the end of each voyage.

A COMPLIMENTARY dinner is to be given to-night, Saturday, Dec. 14th, to Mr. George Jacob Holyoake, the veteran social and political reformer. Mr. Holyoake, during his long career as an agitator (this is his own description of himself) has been a consistent worker for the public good. He was one of the most prominent in continuing the work begun by Joseph Hume, Thomas Wakley, the founder of THE LANCET, Lord Lytton, Daniel Whittle Harvey, and others, which resulted in the freeing of the press from the onus of stamp duties. It is on record that Mr. Holyoake incurred, by refusing to submit to the legislation of the "fifties," fines amounting in the aggregate to £600,000, a sum which he proposed to pay to the Chancellor of the Exchequer in weekly instalments. The public, to whom the vigorous octogenarian is only a name, are to have a taste of his editorial vigour, for Mr. Holyoake has been requested, and has consented, to edit the *Sun* for the week preceding Christmas.

<sup>1</sup> THE LANCET, Nov. 30th, 1901, p. 1502.

## THE PLAGUE IN INDIA.

BY ALEX. GRAHAM-SIMPSON.

## I.—SYSTEM OF HARBOUR INSPECTION.

THERE is little wonder that the Orient liner *Ormuz* at Marseilles recently refused to go into quarantine considering what quarantine at Marseilles means. The writer has had experience both of the French and Spanish methods in regard to plague and quarantine. From the point of view of inspection they are most unsatisfactory; while in respect to quarantine the less said about them the better. If the authorities in these countries wish for an example of the perfection of medical work of this class they must go to India, particularly to Bombay. An account of how Europe is there safeguarded from the spread of the terrible disease at the present moment may prove of interest.

How great is the work entailed and how thoroughly it is carried out may best be understood from the fact that not a single native boat of any size whatsoever crosses Bombay harbour unless the occupants of the craft have been medically examined and reported upon. As regards vessels going to foreign ports the care exercised is of the minutest character. All passengers are medically examined on shore prior to embarkation, and officers and crew without exception have to undergo a similar ordeal. The time of departure for every ship is notified to the port health officer and recorded, so that each day brings a long programme of work, extending from sunrise to sunset, which has to be divided among the members of his staff. This consists of four fully-qualified European medical men, two European lady practitioners, a large number of subordinates, and a special corps of some 50 police.

As soon as the hold of a vessel is empty it has to be washed and disinfected, lest germs have been left there by the coolies who have assisted in unloading the cargo; and, when again at sea, the bilge water, which has been liberally treated with carbolic acid, has to be pumped out. Fore-castle and cabins are thoroughly washed with disinfectants, while, as regards the men's quarters, it is insisted, not only that the inside of their bunks shall be so cleansed, but that the bottoms underneath shall undergo the same process. Carbolic powder is sprinkled all over. The medical authorities are furnished with a complete list of the crew and of every box belonging to them.

## STEAMING PROCESS AT MALET BUNDER.

Before the departure of the vessel each man has to go ashore with all his belongings. If he has not had the good sense to attire himself in the cleanest clothes of which he is possessed he is made to do so. What he has put off is taken to that portion of the harbour known as Malet Bunder, and, along with the contents of his trunks, is placed in an iron cradle of huge dimensions. This, when full, is run on wheels along little rails into an immense boiler. Here for 15 minutes the articles are subjected to steam at a pressure of 10 pounds to the square inch, the temperature attained being no less than 239° F. Three times during those 15 minutes the steam is changed; and for five more minutes the clothes are subjected to hot air. The result is that the great iron cylinder becomes the tomb of every microbe that has been encased within it, and the hot air so dries everything that, excepting in the inmost folds, no trace of the steam can be found. What little damp remains vanishes on exposure to the air.

But while all this "cooking" has been going on the medical man has not been idle. He carefully examines the owner of the clothes.

In a large shallow tank at the end of the inspection sheds every box is washed and disinfected within and without. The crews of the P. and O. steamers have their boxes cleaned at the company's expense each voyage and covered with quick-drying red paint. In other cases the boxes are whitewashed. The date of the cleaning is carefully stamped upon the bottom of the trunks and a corresponding mark is placed upon the arms of the owners. The clothes are repacked. Men and boxes are then sent on board and are not allowed to come on shore again, policemen being kept on watch lest the rule should be broken. The number of men is checked by the ship's articles; and during their

absence their quarters are searched to see that nothing which ought to have been disinfected has been kept back. On the departure of each batch the floor of the inspection shed is swept perfectly clean and the dust thus collected is burned. There seems to be no possible chance for the existence of germs. Regarding passengers, especially natives, the rules are most strict. None are allowed on board a boat thus prepared for sea by the medical authorities without the production of a ticket certifying that they have been thoroughly examined and are free from disease. As with the crew, once on board, there they have to stay.

All this is not sufficient, however. At the last moment, before the vessel leaves the harbour, one of the Port Health Staff goes on board. The roll of the crew is again called. Again they are examined and again their trunks are counted. Woe to the ship with an extra man or a box that does not bear the stamp of official approval! At the very least it will mean that the whole process of disinfection will be repeated after the removal of the guilty individual or the offending property.

## SCENES AT MODY BUNDER.

The protection of foreign ports, however, does not alone occupy the attention of the Indian Government. At immense expense India, too, has to be sanitarily safeguarded. From Mody Bunder every week thousands of natives travel by steamer to different places along the coast. Every one of these is examined in the Bunder shed constructed specially to facilitate inspection. It is impossible for a single person to enter without being seen. At each end is a compartment where in the one men and in the other women may be called to undergo further examination if the first inspection has aroused suspicion in the mind of the medical man. Lady practitioners are, of course, employed to look after those of their own sex and the greatest care is taken that, so far as is consistent with thoroughness, caste prejudices are not aroused.

Before the departure of the steamers hundreds of would-be passengers congregate outside the long corrugated-iron shed awaiting admission. Once the doors are opened they stream in, a motley throng, and, toeing a mark on the floor, face the rising sun. The doctor passes down the row, taking temperatures and looking at tongues. Many of these passengers have been through the operation before and they sit patiently with tongues cut and eyes shut awaiting the ordeal. At times the sight is very funny. Add to this the solemnity of the Oriental and the picture is easier to imagine than describe. But this is scarcely more amusing than the expression of relief that overspreads the features of those examined when they learn that all is well. Sick people rarely present themselves for examination. They have learned by experience that it is almost impossible to escape the vigilance of expert officers.

The local passenger boats, in the same way as those journeying to European ports, are subjected to the most rigorous cleanings and disinfectings, and though most of the staff are engaged during the remainder of the day in visiting the ships in the stream and at the docks, there is always one medical officer on duty at the coasting company's shed to see that everything is conducted in the way desired by Government.

## THE VENICE CONVENTION.

Of the inspection of inward-bound vessels little need be said, excepting that it is equally thorough and, added to the duties of the Port Health Staff already enumerated, makes them without doubt one of the most hard-worked bodies of officials in India. It is no matter of surprise that when the Indian delegate at the Venice Convention, after a close investigation of the system, explained it to his colleagues his statement was received "with satisfaction mingled with incredulity." Members of foreign scientific commissions who have passed through India to study plague have expressed astonishment and admiration at the completeness of the inspection, and when the Venice Convention regulations were published it was found that they provided nothing essential that was not already in force in India. It was ruled, however, that all persons prior to embarkation were to be inspected first on shore, and this, as will be apparent from what has been stated, has been complied with most scrupulously.

## INTERESTING STATISTICS.

The magnitude of the work done will be seen from the statistics. From February to May, 1897, 1038 square-rigged vessels and 16,154 native craft were inspected. Of passengers

182,386, and of members of crews 143,906, were examined, of whom 678 among the former and 153 among the latter were rejected. From June, 1897, to May, 1898, the number of square-rigged ships had risen to 2488 and the number of native craft to 48,730. There were 355,409 passengers and 458,462 members of crews inspected, of the passengers 10,635 being rejected and of the seamen 687. From June, 1898, to May, 1899, there was again an increase, the numbers being 2708 square-rigged ships inspected, 57,480 native craft, 546,881 passengers, and 695,136 members of crews. Of these the passengers rejected numbered 15,380 and of the members of crews found medically unfit there were 1314.

During the entire period, therefore, no fewer than 128,598 ships of various sorts had to be visited and 1,102,180 persons examined.

Bombay was visited three times by virulent epidemics of plague and was not once free from the disease. Nevertheless, only seven cases were reported as having occurred on ocean vessels. The first, it appears, was that of a pilgrim and occurred on a pilgrim-ship in 1897. The second was discovered on a military transport in the March of the same year. The passengers of the vessel had been examined by the military and not by the port officials. Two other cases were found on board P. and O. liners in March, 1898, during voyages between Bombay and Aden, and the remaining three occurred on the same line—one of a Lascar which proved fatal at Colombo, another of a native fireman who died at Aden, and the third of a native passenger whose death took place also at Colombo. At the time of writing it was not possible to ascertain accurately if many cases occurred among the millions of the crews and passengers who left Bombay for coast ports, but very few had been detected.

These facts speak volumes for the thoroughness and success with which the operations entrusted to them have been, and are being, carried out by the Port Health Staff at Bombay, whose duties, arduous as they are monotonous and often disgusting, have been fulfilled with a devotion worthy of the highest praise. The Indian treatment of quarantine patients France and Spain might copy with advantage, and they would benefit greatly by a more careful study and practice of every detail of the preventive system.

### THE ELECTION OF DIRECT REPRESENTATIVES ON THE GENERAL MEDICAL COUNCIL.

On Tuesday afternoon, Dec. 10th, the result of the election of Direct Representatives for England and Wales upon the General Medical Council was made known. The voting resulted as follows:—

MR. GEORGE JACKSON...	6518
MR. GEORGE BROWN ...	5369
DR. S. WOODCOCK ...	3161
DR. C. W. HAYWARD ...	1385

Mr. George Jackson therefore takes the seat left vacant by the retirement of Dr. Glover, while Mr. George Brown is re-elected for a further term of five years.

We have received the following letters for publication:—

TO THE REGISTERED PRACTITIONERS OF ENGLAND AND WALES.

FELLOW PRACTITIONERS,—I thank you very sincerely for the great honour you have done me in re-electing me, by an increased majority, as one of your Representatives on the General Medical Council, and I beg to assure you that in discharging the duties of the office I shall continue, as heretofore, to do all I can, having due regard to the claims of the public, to promote the welfare and best interests of the profession.—I remain, your obedient servant,

GEORGE BROWN.

6, Gibson-square, London, N., Dec. 11th, 1901.

TO THE REGISTERED MEDICAL PRACTITIONERS OF ENGLAND AND WALES.

FELLOW PRACTITIONERS,—I have to offer you my most sincere thanks for having returned me to represent your

interests as a Direct Representative on the General Medical Council. I feel greatly the honour you have conferred on me, and hope to be able to help to carry out the reforms which we all desire to see accomplished.

I remain, your obedient servant,

GEORGE JACKSON, F.R.C.S. Eng.

10, Portland-villas, Plymouth, Dec. 11th, 1901.

To the Editors of THE LANCET.

SIRS,—Will you allow me through the medium of the columns of THE LANCET to express my hearty thanks to those ladies and gentlemen who voted for me in the election? I am, of course, well aware that it is to the principles which I advocated that I owe so large a measure of support.

I am, Sirs, yours faithfully,

Manor-place, Edinburgh, Dec. 9th, 1901. NORMAN WALKER.

## Looking Back.

FROM

THE LANCET, SUNDAY, DEC. 14, 1823.

CONDUCT OF THE SURGICAL CLASS AT THE BOROUGH PREVIOUS TO SIR ASTLEY COOPER'S ENTRANCE.

To the Editor of The Lancet.

Dulce est desipere.

SIR,—Your facetious Correspondent, who recommended push-pin, and a variety of other games, to the adult members of the profession, in the last week's LANCET, would, perhaps, deem his advice unnecessary, if he were to witness the scenes which take place in the theatre of St. Thomas's Hospital, during the half hour previous to the entrance of Sir Astley Cooper. Students, already so accomplished in the branches of science pointed out by your Correspondent, can need no additional instruction. What an interesting spectacle, Mr. Editor, to see a body of young men assembled for the purpose of acquiring professional knowledge, actively engaged in discharging masticated paper and apple into each other's faces; or employed in the no less intellectual occupation of twirling round the Lecturer's table, or sprinkling dirt on the heads of those who happen to sit under them! I have been educated at Edinburgh; and have attended the medical schools of our continental neighbours, and I can assure you that the students of St. Thomas's are not only far greater proficient in these accomplishments than their graver brethren of the North, but that if a student from the *Ecole de Médecine* were introduced into the theatre in the Borough, he would be compelled to acknowledge the inferior vivacity of a class of French students. Such an admission would, no doubt, be very humiliating, but the students in the Borough are entitled to it; *palmarum qui meruerunt ferant*.

Yours truly,

EDINENSIS.

Prizes proposed by the Royal Society of Medicine at Bourdeaux.

PATHOLOGISTS having admitted that there existed disease in which no alteration of the organic tissues could be discovered, have employed various terms to designate them. In the present improved state of pathological anatomy, accurate examinations of a great number of bodies after death have established the fact that certain diseases which have been hitherto supposed to be entirely produced by injuries of the vital functions, were in fact kept up by true organic injuries. Relying upon these recent discoveries, some physicians contend that there can be no disease without organic injury. In this state of our knowledge, the Society at Bourdeaux has considered it a favourable moment to propose to the discussion and decision of practitioners the following questions:

Do any diseases exist, in which the vital functions are alone injured, without any alteration of the organic tissues? Can these diseases be recognized and demonstrated by

positive characters, and subsequently confirmed by examinations after death?

A prize of the value of 300 francs will be adjudged to the best Essay on this subject, at the general meeting in 1824.

A similar prize will be adjudged to the best Essay on the following questions, at the meeting in 1825:

Can medicinal substances be safely injected into the venous system of man? What are the medicinal substances which can be introduced into the animal economy in this manner? And what are the diseases which require this mode of treatment?—*Journal Complémentaire du Dictionnaire des Sciences Médicales*, Nov. 1823.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In 33 of the largest English towns 6358 births and 4292 deaths were registered during the week ending Dec. 7th. The annual rate of mortality in these towns, which had been 19.4 and 20.3 per 1000 in the two preceding weeks, declined again last week to 19.5 per 1000. In London the death-rate was also 19.5 per 1000, and corresponded with the average rate in the 32 large provincial towns. The lowest death-rates in these towns were 13.6 in Croydon, 14.0 in Portsmouth, 14.3 in Derby, and 15.3 in Bradford; the highest rates were 23.0 in Manchester, 23.9 in Oldham, 28.6 in Blackburn, and 29.3 in Norwich. The 4292 deaths in these towns last week included 135 from measles, 70 from diphtheria, 64 from whooping-cough, 50 from scarlet fever, 44 from "fever" (principally enteric), 30 from diarrhoeal diseases, and 16 from small-pox. In all, 417 deaths resulted from these principal zymotic diseases, against 427, 443, and 434 in the three preceding weeks. No death from any of these diseases occurred last week in Huddersfield; in the other towns they caused the lowest death-rates in Croydon, Cardiff, Hull, and Gateshead, and the highest rates in Birmingham, Norwich, Manchester, Oldham, Blackburn, and Halifax. The greatest proportional mortality from measles was recorded in Norwich, Manchester, Oldham, Blackburn, Halifax, and Sheffield; from scarlet fever in Birmingham; from "fever" in Plymouth; and from diarrhoeal diseases in Swansea, in Nottingham, and in Burnley. The mortality from whooping-cough showed no marked excess in any of the large towns. The 70 deaths from diphtheria in these towns included 36 in London, five in Liverpool, four in Sheffield, three in West Ham, and three in Bristol. 16 fatal cases of small-pox occurred in London, but not one in any of the 32 large provincial towns. There were 474 cases of small-pox under treatment in the Metropolitan Asylums hospitals on Saturday, Dec. 7th, against 368, 396, and 427 at the end of the three preceding weeks; 170 new cases were admitted during the week, against 113, 141, and 123 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 3353, 3336, and 3278 on the three preceding Saturdays, had further declined to 3241 at the end of last week; 377 new cases were admitted during the week, against 376, 379, and 320 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 582 and 534 in the two preceding weeks, further decreased last week to 470, but were 33 above the corrected average. The causes of 42, or 1.0 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Nottingham, Bradford, Leeds, and in 14 other smaller towns; the largest proportions of uncertified deaths occurred in Liverpool, Blackburn, Preston, Sheffield, and Sunderland.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19.9, 21.3, and 22.2 per 1000 in the three preceding weeks, declined again to 20.5 per 1000 during the week ending Dec. 7th, but was 1.0 per 1000 above the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 14.2 in Perth and 14.4 in Paisley to 23.6 in Aberdeen and 24.8 in Leith. The 653 deaths in these towns included 23 which were referred to measles,

21 to diarrhoea, 10 to "fever," nine to scarlet fever, five to diphtheria, and four to whooping-cough. In all, 72 deaths resulted from these principal zymotic diseases last week, against 85 and 77 in the two preceding weeks. These 72 deaths were equal to an annual rate of 2.3 per 1000, which was 0.4 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of measles, which had been 29 in each of the two preceding weeks, declined last week to 23, of which 20 occurred in Glasgow and two in Dundee. The deaths from diarrhoea, which had been 30 and 21 in the two preceding weeks, were 21 last week, and included eight in Glasgow, five in Dundee, four in Edinburgh, two in Aberdeen, and two in Leith. The fatal cases of "fever," which had been 12, eight, and nine in the three preceding weeks, rose again last week to 10, of which seven were registered in Glasgow and two in Paisley. The deaths from scarlet fever, which had been eight, six, and three in the three preceding weeks, increased to nine last week and included four in Glasgow, three in Greenock, and two in Edinburgh. The fatal cases of diphtheria, which had been six and eight in the two preceding weeks, declined again last week to five, of which four occurred in Glasgow, where the four deaths from whooping-cough were also registered. The deaths referred to diseases of the respiratory organs in these towns, which had been 177 and 186 in the two preceding weeks, decreased again last week to 180, but were 29 in excess of the number in the corresponding period of last year. The causes of 27, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23.8 and 18.8 per 1000 in the two preceding weeks, rose again to 20.2 during the week ending Dec. 7th. During the past four weeks the death-rate has averaged 21.7 per 1000, the rates during the same period being 20.6 in London and 18.7 in Edinburgh. The 145 deaths of persons belonging to Dublin registered during the week under notice were 10 in excess of the number in the preceding week, and included six which were referred to the principal zymotic diseases, against nine and seven in the two preceding weeks; of these, three resulted from diarrhoeal diseases, one from scarlet fever, one from diphtheria, and one from "fever," but not one from either small-pox, measles, or whooping-cough. These six deaths were equal to an annual rate of 0.8 per 1000, the zymotic death-rates in the same period being 1.5 in London and 1.3 in Edinburgh. The three deaths from diarrhoeal diseases showed a slight decline from the number in the preceding week. The 145 deaths in Dublin last week included 23 of children under one year of age and 38 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a slight decline from the respective numbers recorded in the preceding week. Four inquest cases and two deaths from violence were registered, and 57, or more than a third, of the deaths occurred in public institutions. The causes of 12, or more than 8 per cent., of the deaths in Dublin last week were not certified.

## THE SERVICES.

### ROYAL ARMY MEDICAL CORPS.

THE under-mentioned officers are placed on temporary half-pay on account of ill-health:—Lieutenant-Colonel F. A. Harris (dated Oct. 24th, 1901); Captain J. E. Carter (dated Dec. 1st, 1901).

Major J. H. Nicholas, retired pay, has arrived for duty at Derby and has assumed medical charge of the station hospital and troops. Captain F. R. Buswell has been permitted to extend his tour of Indian service until the next trooping season. Captain G. B. Stanistreet proceeds to Southampton for duty.

### INDIA AND THE INDIAN MEDICAL SERVICES.

Major C. C. Manifold, Indian Medical Service, to be Lieutenant-Colonel in recognition of services during the operations in China. The award bears date Nov. 29th, 1901.

### VOLUNTEER CORPS.

*Submarine Miners*: The Forth Division: Surgeon-Lieutenant J. Wilson to be Surgeon-Captain. *Rifle*: 6th Volunteer Battalion the Royal Scots (Lothian Regiment): Harold

Sherman Ballantyne to be Surgeon-Lieutenant. 2nd Volunteer Battalion the Prince of Wales's Own (West Yorkshire Regiment): Surgeon-Lieutenant-Colonel S. Johnson resigns his commission, with permission to retain his rank and to wear the uniform of the battalion on retirement. 2nd Volunteer Battalion the East Lancashire Regiment: Surgeon-Captain C. E. R. Bucknill resigns his commission. 2nd (South) Middlesex: Surgeon-Major S. H. Moore resigns his commission, with permission to retain his rank and to wear the uniform of the corps on retirement.

#### VOLUNTEER MEDICAL STAFF CORPS.

The Manchester Companies: Herbert George Parker to be Surgeon-Lieutenant.

#### SOUTH AFRICAN WAR NOTES.

Civil Surgeons Lavertine, Dickenson, Strange, Ward, McLean, and Gould have been discharged from hospital to duty.

Major B. M. Skinner, R.A.M.C., is returning to England from South Africa in the s.s. *Tagus*.

Civil Surgeon McCabe, reported missing at Doornkop on Nov. 28th, has rejoined.

On Dec. 7th, at Dublin Castle, the Lord Lieutenant of Ireland presented war medals to the members of the Irish Hospital Corps which returned recently from South Africa.

The Imperial Yeomanry Hospital at Elandsfontein will be transferred to the authorities on Dec. 28th and the medical officers, sisters, and other members of the staff will return to England by the first available transport.

#### AFFAIRS IN SOUTH AFRICA.

As far as the purely military aspect of affairs is concerned there seems to have been an increased activity in South Africa of late and the progress of events has been going on at a somewhat accelerated pace. We can only trust that Sir Gordon Sprigg will prove correct in expressing his conviction that the war is fast drawing to a close. The total casualties that have been incurred from the beginning of hostilities up to and including last month mount up to a considerable figure. The total reduction of the military forces through the war, including deaths in South Africa, missing, and prisoners, deaths among invalids sent home, and invalids discharged the service as permanently unfit, amount to 907 officers and 22,564 rank and file = 23,471. It may be mentioned as a satisfactory fact that a great majority of the men invalided home have recovered and rejoined for duty. As regards the Boer population in the concentration camps there is no doubt that there has been a deplorable amount of sickness and death. The occupation of these camps was apparently unavoidable under the circumstances and was dictated as a matter of humanity to the Boer families as much as one of military and general policy. As far as we understand, the camps no longer remain under the control of the War Office, but have passed under the authority of the Colonial Office and are, as far as practicable, to be split up and a number of practical changes are to be introduced and carried out in regard to them.

#### THE LATE SIR WILLIAM MACCORMAC.

The *Times* of Dec. 9th publishes a letter from Sir William MacCormac to Sir James Blyth written while on the way home from South Africa in April last:—

I have accomplished a great deal—I am myself astonished how much—during the four and a half months I was in the country. I have visited all the hospitals in Natal and in Cape Colony and have seen the working of the field hospitals at the front—where I have been four times—the hospitals, and hospital trains along the lines of communication, and the base hospitals; and, to make the experience complete, I have been a patient in hospital myself with a short attack of dysentery, which was sufficiently unpleasant and painful. You will grant that I am qualified so to speak when I affirm that never were medical arrangements better or more complete, or an expedition ever sent out more thoroughly and lavishly supplied with everything that medical foresight could suggest. I have been consulted in cases innumerable; and, in doing what I have sketched, have had to travel over more than 6000 miles of country. The powers that be out here, from Lord Roberts downwards, have expressed themselves very flatteringly, and I have myself the conviction, I hope not misplaced, that I have been able to do some public service. When we meet I will tell you of my adventures. I am glad, and yet sorry, to return, but practically Lord Roberts insisted, and it was a command virtually. He said I had done my share and earned a rest. I do not think I could have done more than repeat what I had already done had I remained; and there is much for me to do at home.

Surgeon-Major-General A. M. Tippetts, retired list, A.M.S., has been granted a distinguished service reward of £100 a year.

#### LADY BADEN-POWELL'S APPEAL.

Lady Baden-Powell, in thanking the press for making known the scheme for sending a small Christmas present to each man in the South African Constabulary, states that the required sum of £1000 has now been raised, some friends of the corps having undertaken to make up the very small deficiency. For the information of those who have given donations Lady Baden-Powell mentions that none of the money has been used for any expenses incurred in forwarding the goods, postages, agency, &c. Each man of General Baden-Powell's force has been sent a Christmas pudding, half a pound of tobacco, a pipe, and a handkerchief. In addition, supplies of books, magazines, clothing, chocolate, cigarettes, &c., which have been sent by friends, have been forwarded. Some large and generous donations have been received, but a great part of the funds has been made up in small sums—even schoolboys and servants foregoing their Christmas presents in order to send the money to those who are so far from the good cheer of their home circle this Christmastide.

#### THE IRISH HOSPITAL CORPS.

Earl Cadogan, the Viceroy of Ireland, on Saturday afternoon last presented medals to the Irish Hospital Corps who served in South Africa. His Excellency was accompanied by the Duke of Connaught and a distinguished company, and after presenting the medals to Sir William Thomson, Mr. George Stoker, and other members of the corps, gave an address highly eulogising the work they had done and the great services they had rendered at the seat of war. In the course of his address Lord Cadogan alluded to the service rendered by the late Sir William MacCormac and to the noble and pathetic story of Mr. W. Smyth of Donegal. Sir William Thomson, in returning thanks on behalf of the Hospital Corps, said that they were especially proud to have been permitted to take part in the glorious work of succouring the sick and wounded of friend and foe in South Africa.

#### CHANGES IN THE ARMY MEDICAL SERVICE.

Surgeon-General W. Taylor, C.B., having arrived home, as we announced last week, to take up his appointment as Director-General of the Army Medical Service, it will be necessary to fill up the post he has vacated of Surgeon-General to His Majesty's forces in India, and there naturally exists some interest as to the medical officer to be nominated for the purpose. Surgeon-General W. S. M. Price is officiating as head of the British Medical Service in India in the meantime. Owing to the occurrence, or shortly anticipated occurrence, of vacancies in the rank of surgeon-general several promotions should soon take place.

## Correspondence.

"Audi alteram partem."

### RASH AFTER TONSILLOTOMY.

To the Editors of THE LANCET.

SIRS,—As I am much interested in all "rashes" I would raise the question whether the non-specific rash following Mr. H. W. Henshaw's operation (recorded in THE LANCET of Nov. 30th, p. 1531) did not arise from the administration of a soap-and-water enema either before or after the operation? This is an exceedingly common cause of such eruptions in children.

I am, Sirs, yours faithfully,

Rugby, Dec. 4th, 1901.

CLEMENT DUKES.

To the Editors of THE LANCET.

SIRS,—With reference to the remark of Mr. H. W. Henshaw in THE LANCET of Nov. 30th, p. 1531, on a rash following the removal of tonsils and adenoids I should like to say that a similar case occurred to me recently after removal of adenoids alone from a girl, aged 13 years. The rash occurred two days after operation and covered the chest, abdomen, back, and limbs, but not the face, hands, or feet, being thus similar to Mr. Henshaw's case. It was red, punctiform, and raised, and there was a little irritation on the chest. The temperature was not raised and the patient

felt perfectly well. The rash disappeared gradually and was gone in two days, leaving no desquamation. Very little chloroform was given, no drugs were administered, and there was no alteration in diet.

I am, Sirs, yours faithfully,  
Ramsgate, Dec. 7th, 1901. H. W. REYNOLDS, M.B., B.Sc.

*To the Editors of THE LANCET.*

SIRS,—In respect to your note to my communication published in THE LANCET of Nov. 30th, p. 1531, recording the occurrence of a rash after tonsillotomy, I trust that you will permit me to answer your inquiries and to explain that I omitted the details you mention because they seemed of quite negative value. No drugs whatever were being taken. The only change of diet was the usual one of placing the patient on fluid food for a short time after the operation. Chloroform was the anæsthetic employed. It is, of course, often most difficult directly to associate cause and effect, but in this case there was no obvious reason for the eruption apart from operation, and I therefore felt justified in regarding it as an instance of "tonsillotomy rash," of which Wingrave recorded 30 cases in the *Laryngoscope* of July, 1901.

I am, Sirs, yours faithfully,  
H. W. HENSHAW, M.R.C.S. Eng., L.R.C.P. Lond.,  
Kew, Dec. 10th, 1901. D.P.H. Lond.

## AN ELECTRO-THERAPEUTICAL SOCIETY.

*To the Editors of THE LANCET.*

SIRS,—I was pleased to see in THE LANCET of Dec. 7th, p. 1611, a letter from Mr. Chisholm Williams asking for support in the formation of a society for those practising electro-therapeutics. In this country we are sadly behind many of our continental neighbours in the use of the physical forces in the treatment of disease and this is more especially the case with electricity. Hitherto it has been left to the few who have learned to appreciate the immense value of the intelligent use of electricity in medical treatment to combat as best they can the grave prejudice existing in the mass of the profession against what may be called electrical treatment. Such a society, if well supported, should do much to rescue electro-therapeutics from the lay "medical electrician" and the vendor of the so-called "electric" belts. As one who has for many years worked in this field, and who relies largely upon electricity as a therapeutic agent, I shall be pleased to give such a society every help in my power.

I am, Sirs, yours faithfully,  
RICHARD J. COWEN, L.R.C.P. Irel., &c.  
Clarges-street, Mayfair, W., Dec. 9th, 1901.

*To the Editors of THE LANCET.*

SIRS,—Referring to Mr. Chisholm Williams's letter of last week suggesting the formation of a new society, will you allow me to say that the council of the Röntgen Society have for some time past been considering the advisability of enlarging its scope so as to include the investigation of other radiations than those immediately connected with its name. The president in the address he delivered on Nov. 7th last expressed these views somewhat fully and it has since been decided to carry them out and the question of a possible modification in the name of the society is also under consideration. The object Mr. Williams desires to effect by forming a special medical society has not been lost sight of, but it is felt that the new therapeutic agents such as high-frequency electric currents, Finson light, &c., call for so much further investigation that it would not be wise—certainly at present—to exclude the valuable help of physicists who have leisure to undertake such inquiries, few medical men having the time at their disposal for original research. This plan has worked very well in our society in the matter of x rays, the result being that the medical profession has now in its hands better apparatus and fuller knowledge than would have been possible had there not been the coöperation of which I speak.

I am, Sirs, yours faithfully,  
J. J. VEZEY,  
Dec. 9th, 1901. Honorary Treasurer to the Röntgen Society.

*To the Editors of THE LANCET.*

SIRS,—I trust that the scheme spoken of by Mr. Chisholm Williams in THE LANCET of Dec. 7th (p. 1611) will bear

practical fruit. An electro-therapeutical society is really wanted.

I am, Sirs, yours faithfully,

Dec. 12th, 1901.

M.B.

\* \* A society which would bring together those who are working at the subject of medical electricity might be a useful thing, although we are always a little loth to recommend the addition of a new scientific society to the already lengthy list of such bodies. But additions to the ranks of those interested in electricity have been numerous lately and it may reasonably be supposed that there are now enough to keep a special society alive. Of matters to be discussed there is no lack; what is required is a gathering of persons qualified to discuss them.—ED. L.

## THE ADMINISTRATION OF CHLOROFORM.

*To the Editors of THE LANCET.*

SIRS,—In THE LANCET of Nov. 23rd, p. 1418, is an account of the opening meeting of the Society of Anæsthetists. The difference of opinion expressed shows the lack of clear thought that exists in the profession with regard to the safe administration of chloroform. In no one instance was *personal* experience advanced. Observation is one thing; to speak from actual personal knowledge in conjunction with observation is another. It seems to me that a multiplicity of words only fogs the subject and that the matter is in a nutshell. At any rate, I am ready at any time to prove before any number of the profession that chloroform *when properly administered* is, and ought to be, free from danger and all bad after-effects worth naming. This I am willing to demonstrate by taking it to the stage of surgical anæsthesia by a *Krohne inhaler* and then getting up and riding away on my tricycle. Surely it is time this question should be definitely settled so that the public may always have it rightly administered. The whole question is one of overdosing.—I am, Sirs, yours faithfully,

C. J. HARRIS, M.R.C.S. Eng., &c.  
Kilburn Priory, N.W., Dec. 3rd, 1901.

## AN UNDESCRIBED (?) SYMPTOM IN WHOOPING-COUGH.

*To the Editors of THE LANCET.*

SIRS,—I should like to draw the attention of your readers to a symptom which I have both experienced and observed in whooping-cough and which, if it receives corroboration, may prove of assistance in the diagnosis of this very troublesome disease. I had the misfortune last summer to contract whooping-cough from a hospital case and subsequently to infect my two children. In my own case I had the usual preliminary catarrhal stage, followed by paroxysmal cough, the fits being so prolonged as to result on one occasion in the rupture of some fibres of one of the abdominal muscles. During the whole course of the illness—some seven or eight weeks—I whooped only twice or three times. But after every paroxysm of at all a severe nature a series of what one might perhaps call deglutition spasms set in, and I had to gulp down saliva as quickly as possible for a minute or two, the interval between the gulps gradually lengthening and the paroxysm finally passing off.

I found it quite impossible to control these gulps, though I tried hard. The sensation was a most unpleasant one as were also the consequences, for one's stomach became largely filled with air. I noticed the same symptoms in both of my children though only at such times as they did not whoop. I also observed it in two children at the Stockport Fever Hospital, again at times when they did not whoop. Apart from this symptom all the cases mentioned were quite typical. I do not find any mention of this symptom in Fagge, Goodhart, Taylor, Watson, or Carter, and none of the medical friends to whom I have spoken have ever observed it. It appears to me, however, that it is worth while bringing it to the notice of your readers in order to see whether it has been observed and recorded before or not. My own experience of it was quite sufficient to impress me with its unmistakable character.

I am, Sirs, yours faithfully,  
Stockport, Dec. 5th, 1901. MEREDITH YOUNG, M.D. Edin.

## UNDERFED CHILDREN IN THE BOARD AND VOLUNTARY LONDON SCHOOLS.

*To the Editors of THE LANCET.*

SIRS,—Will you permit me once more to appeal to the charitable public through your columns on behalf of the funds of the London Schools Dinner Association? That association provides cheap or free meals for underfed children in the board and voluntary schools of London. The grants which it makes for that purpose are administered by local committees upon which the managers and teachers are represented. These committees ascertain by proper inquiry that the need of application for relief is real and undertake the economical provision and distribution of suitable food.

Last winter the underfed children in 181 schools were thus relieved, under the administrative control of 79 local committees. About 660,000 meals were provided, of which 102,800 were paid for wholly or partly, by the recipients. The total receipts from donations were £1186, but the amount spent in the provision of meals alone was £1286. This is the third year in which the necessary expenditure of the association has exceeded its income. The total deficit for that period now amounts to more than £700, and the accumulations of earlier years, when income exceeded expenditure, are now practically exhausted. Unless, therefore, the association receives a substantial increase of income at an early date, its necessary and beneficent work will have to be curtailed.

Cheques and postal orders should be made payable to "The London Schools Dinners Association," and crossed "Barclay & Co.," and forwarded to the Secretary, 117, School Board Offices, Victoria Embankment, W.O.

I am, Sirs, yours faithfully,

REAY,

Chairman of the School Board for London.

## THE LATE R. B. ANDERSON FUND.

*To the Editors of THE LANCET.*

SIRS,—With reference to the affairs of the late Mr. R. B. Anderson, it may be within the recollection of your readers that in July last we made an appeal to the profession for subscriptions towards the support of his widow and their twin sons. This subscription now amounts to about £80, a very inadequate sum; but the committee feel that it is useless to keep the fund open much longer. It has therefore been decided to close it on Wednesday, Jan. 8th, 1902, and to make an earnest appeal in the meanwhile for further donations. The amount realised will at once be sent out to the island of Tobago to be used for the benefit of Mrs. Anderson and her two sons at the discretion of the Warden of that island. We may add, in view of a rumour which has prevailed that the Civil Rights Defence Committee was dissolved in consequence of some misconduct on Mr. Anderson's part, that the only reason for the dissolution of that committee was its failure to collect, in the time given for that purpose, the funds required for the contemplated appeal to the Privy Council.

Donations are to be marked "for the late R. B. Anderson Fund," and to be sent, and cheques, &c., made payable, to the Manager, Union Bank of London, Chancery-lane, London, W.C. They will be duly acknowledged.

We are, Sirs, yours faithfully,

STAMFORD, Chairman.

Dec. 9th, 1901.

TIMOTHY HOLMES, Hon. Treasurer.

## THE DANGERS OF A COMMON COLD.

*To the Editors of THE LANCET.*

SIRS,—The evidence that all colds are infectious and that without the presence of infection it is impossible to catch a cold is probably far stronger than your correspondent Dr. Clayton Jones thinks. Colds are almost unknown in the Arctic Circle, not on account of the action of the continuous cold, but because the greater part of that region is uninhabited. When Sir William Conway and his men were exploring Spitzbergen, though they were exposed to great privations and were almost constantly wet through, they never caught a cold, but directly they came down to Andrée's

settlement on the coast, where some 40 men were living in almost constant intercourse with the mainland, they all developed violent colds. Nansen and his men never caught a cold during all the three years of his voyage, notwithstanding the utmost exposure, but directly they reached civilisation on the coast of Norway, though still within the Arctic Circle, they all suffered badly from colds. The weather is not always keen and bracing in the Arctic regions; during the summer-time in Franz Josef Land, at any rate, it is exceedingly damp, and raw mist-laden east winds prevail; yet the members of the Jackson-Harmsworth Expedition never caught a cold there, though all but two of them did so directly they reached civilisation. More noteworthy still were Conway's experiences in the Himalayas. While amongst the mountains he and his men, notwithstanding great exposure, never caught colds; nor did they even when they visited the small remote native villages; but once they came down to a village where there was a small European settlement in communication with the outer world, and there they all took bad colds. Nor is it only in the Arctic regions and amongst high mountains that colds are absent; the same immunity from them is noticeable during long sea voyages and when camping out in the desert; and, still more unexpectedly, in the best open-air sanatoriums, such as Nordrach, where the ventilation is practically perfect, it is found that the patients do not catch cold. There is, I believe, plenty of other evidence to show that there are places remote from ordinary human life where colds cannot be caught whatever the exposure; probably many of your readers can bring forward instances. On the other hand, that ordinary colds are in the highest degree infectious is now becoming a matter of common knowledge, and any medical man if he goes about with open eyes can collect evidence for himself. I have watched a cold pass from house to house and have even traced it from one village to another and have listened, not without some amusement, while the different sufferers from it have explained to me just how they caught it—ascribing it to some open window, change of garment, or other fancied imprudence. I know houses where all the members of the household, including visitors and children, are constantly catching colds, and they are not the airy or even the draughty houses, but stuffy, grimy, badly ventilated, and dark ones. No doubt it is possible to have an inflammation of the nasal mucous membrane, as of the conjunctiva, from some simple irritant, but such an event is rare, whereas the ordinary infectious cold is by far the commonest of all diseases. Surely, therefore, it is important that its infectiousness should be frankly recognised.

I am, Sirs, yours faithfully,

Shrewsbury, Dec. 3rd, 1901.

H. WILLOUGHBY GARDNER.

## MR. HORSLEY'S ELECTIONEERING SPEECHES.

*To the Editors of THE LANCET.*

SIRS,—I have only to say in reply to Mr. Horsley's personal abuse of me, reported in your columns last week, that my letter on pp. 1374-75 of THE LANCET of Nov. 16th remains unanswered. Had Mr. Horsley's hands been clean it was open to him to refute the statements therein before the election, and especially the paragraph commencing: "I am much surprised at Mr. Horsley's attitude towards the sitting Direct Representatives." His lame defence before the Council proves that there was not a word of truth in his allegations against his colleagues, and particularly Mr. George Brown, against whom he now admits they were directed.<sup>1</sup> As to the rest, it can stand over until Mr. Horsley comes up for judgment before the constituency next year.

I am, Sirs, yours faithfully,

Liverpool, Dec. 7th, 1901.

ALEX. MCCOOK WEIR.

## A MEDICAL DEGREE FOR LONDON STUDENTS.

*To the Editors of THE LANCET.*

SIRS,—I beg to suggest that now is a most favourable opportunity for the London University and the Royal Colleges to formulate some scheme for the institution of a pass degree in medicine for London students. The exigencies of the situation are pressing. I submit that

<sup>1</sup> Vide Brit. Med. Jour., Nov. 23rd, p. 1544, and Dec. 7th, p. 1713.

future medical students will demand a pass degree as a reward for their labours. If this is not forthcoming they will not be induced to come to London. Generation after generation of medical students have hoped that something would be done by way of relief. Long-deferred hope is at present in a dying condition and approaching the end, and will be buried in the near future, hence the falling off in the entries at the metropolitan schools. As a result London will cease to be the great medical teaching centre, and the Royal Colleges will lose their position to a great extent as pass diploma-granting bodies within, say, the next 15 years. The plea that London has great clinical advantages will no longer act the siren and lure the student to London, as provincial universities with well-equipped laboratories and able staffs of teachers have been formed in populous manufacturing districts which offer clinical material to satisfy the most enthusiastic teacher and student.

I am, Sirs, yours faithfully,

FREDERICK W. COLLINGWOOD.

Wimpole-street, W., Dec. 8th, 1901.

## SMALL-POX AND VACCINATION.

To the Editors of THE LANCET.

SIRS,—All vaccinators are aware that many mothers object to vaccination in three or four places; consequently, if they can have their children vaccinated in one place only for sixpence they will not go to the public vaccinator for gratuitous vaccination in three or four places. There are medical men in South London who take advantage of this fact and do a considerable practice in sixpenny vaccinations. This cheap, and probably inefficient, sort of vaccination should be put a stop to, and I am surprised that any medical man can for a few pence consent to perform a most important duty in such a slovenly manner. If all vaccinations were efficient and successful the time would come when small-pox would attack the unvaccinated only and then the anti-vaccinationists would be silenced. I therefore recommend all with whom I have any influence to go to the public vaccinator who uses reliable lymph, vaccinates in three or four places, and has the skill which only large daily practice can give. If, as you say, there is better lymph than that prepared in the laboratory of the Local Government Board there is also much worse and some that is quite inert. A medical friend who is a most careful and skilful vaccinator got no results whatever from some lymph supplied by a certain firm, so instead of regarding his patients as "immune" (as too many would have done) he obtained some lymph from another firm, revaccinated all of them, and got most satisfactory results. I therefore agree with Dr. D. Nabarro who, in his letter in THE LANCET of Nov. 16th, p. 1371, said that "the Local Government Board ought to supervise the manufacture of the lymph supplied by the various firms or make arrangements whereby practitioners other than public vaccinators may obtain a reliable lymph. At present it is only by going to the public vaccinators that the public are certain of being treated with a potent lymph."

I am, Sirs, yours faithfully,

D. HOOPER, B.A., M.B. Lond.

Trinity-square, S.E., Dec. 7th, 1901.

To the Editors of THE LANCET.

SIRS,—There is but one way in which vaccination will become universal and all objections to public vaccinators' methods cease. When the present Act expires let a public vaccinator be appointed to do nothing else and after each vaccination inspection let him give the parent a paper guaranteeing to pay £10 if the child gets small-pox in 10 years. Years ago I wrote to you asking whether I should offend against ethics in doing so, and although you were good enough to state that my action would be correct I felt that it would arouse so much ill-feeling that I have never done it except to private patients. When a public vaccinator becomes a vaccinator and nothing else and has no possibility of having wrong motives applied to his actions, the general practitioner will encourage patients to go to the public vaccinator; it will not be worth while to do cheap "one mark" vaccinations and all the present friction will cease. It would be far cheaper to employ such a scheme, for each vaccinator—of which there could, at any rate in towns, be far less—would have a definite salary and a small capitation grant. I suppose there is no public vaccinator

who would not be willing to make the £10 guarantee part of his contract, for he could always refuse it when the vesicles were not satisfactory, and it is the only method that will convince the general public of the efficacy of vaccination.

I am, Sirs, yours faithfully,  
P. V.

Dec. 7th, 1901.

## THE DIRECTION OF HAIR ON THE HUMAN ARM.

To the Editors of THE LANCET.

SIRS,—The letter of Mr. G. Sherrington-Morris in THE LANCET of Dec. 7th, p. 1611, is both interesting and pertinent and, as far as it goes, bears out the view which I have sought to establish—viz., that use or habit may produce results which are inherited by offspring. The weak side of his communication from the point of view of inheritance is the failure to show whether or not these differences of hair-slope are found in infants. I may say that I happen to be at present investigating this very point as to the direction of the hair-slope on the arms of infants or very young children among these two sects of Mahomedans before the age at which the special ritual washings commence. The subject is being investigated for me by certain Mahomedans in India and I am hoping to make known the results of their observations as soon as they are received, whether they bear out my view or not. If very young children in these two sects of Mahomedans are shown to have no observable difference of hair-slope on their arms it may not prove much as to inheritance. But if a real difference exists in these young subjects the case will become a true *experimentum crucis* of a much-debated doctrine, and, I would add, in that case it will have the special value of being a small contribution to the statistical proof of the doctrine that acquired character can be inherited, because of the fact that the schism between these two sects occurred about the tenth century and the ceremonial acts referred to have been performed on the average five times a day by the individual Mahomedans according to their peculiar tenets. If I should obtain any definite results, I hope, Sirs, that you will be kind enough to allow me to publish them in due course.

I am, Sirs, yours faithfully,

WALTER KIDD.

Dec. 9th, 1901.

## EXCESS OF SALT IN THE DIET A PROBABLE FACTOR IN THE CAUSATION OF CANCER.

To the Editors of THE LANCET.

SIRS,—In reference to Dr. J. Braithwaite's paper read before the Leeds and West Riding Medico-Chirurgical Society<sup>1</sup> it may be worthy of remark that the mortality from cancer is high in Switzerland, and its increasing prevalence has already attracted observation. The consumption of salt in the country is very popular, and a salt flavour is considered essential in all savoury dishes, even by professed cooks. Bakers add salt to bread largely, sometimes in quantity sufficient to render it unpalatable to many persons not accustomed to the taste of it in bread. *Consommé* and soups are generally overloaded with salt, especially among the poorer classes of society. Salads and vegetables get a full share of it too. *Charcuterie* (sausages, ham, &c.) is cheap and is consumed freely. From personal observation I should consider the national appetite was exaggerated for salt as well as for sugar. In the consideration of cancer it may not be out of place to note that a considerable proportion of beef is furnished from old worn-out animals—cows unfit for the dairy or for traction and oxen no longer serviceable in harness.

I am, Sirs, yours faithfully,

Montreux, Switzerland, Dec. 7th, 1901.

TUCKER WISE.

## THE NEW GYNÆCOLOGICAL JOURNAL.

To the Editors of THE LANCET.

SIRS,—It is a pity that Messrs. Baillière, Tindall, and Cox did not, before issuing the prospectus of their new venture, take the trouble to ascertain the truth or otherwise before making the statement that "at present there is no

<sup>1</sup> THE LANCET, Dec. 7th, 1901, p. 1578.

journal devoted to the interests of British workers in obstetrics and gynaecology, and therefore they have recourse to the transactions of societies, hospital reports, and the general medical press in order to make known the results of their observations and researches."

The *British Gynaecological Journal* has now been in existence for 16 years. It is not merely the record of the proceedings of a society but is also "an exponent of contemporary thought and achievement in these branches of medicine and surgery throughout the world." The new journal will therefore be only copying a good example, and running on similar lines to the *British Gynaecological Journal*. It is a pity that instead of adding another journal to the large number already existing, the promoters of the new journal did not arrange to send their contributions to the old-standing journal and so help to make it still more, if possible, a representative publication of British gynaecology and obstetrics, more after the plan of the *American Gynaecological Journal*, instead of still further splitting up much useful information and trying to justify its appearance by making a misleading statement to its prospective subscribers.

I am, Sirs, yours faithfully,  
Harley-street, W., Jan. 8th, 1901.

HEYWOOD SMITH.

### MEDICAL OR LAY SECRETARIES TO HOSPITALS.

To the Editors of THE LANCET.

SIRS,—I ask permission to attempt to obtain the opinion of members of the medical profession through the medium of THE LANCET (or to myself privately) on the advantage or otherwise accruing to the public in appointing medical secretaries of hospitals, sanatoriums, and similar institutions (or of committees to organise their foundation) rather than lay officials. In such a question the spirit of the times may be read in recent appointments made in many professions, services, and public departments, at home and abroad, which attest the value of educated and specialised knowledge in such officials. Whether medical candidates for such posts could be obtained is another matter.

I am, Sirs, yours faithfully,  
20, Athenæum-street, Plymouth.  
Dec. 6th, 1901.

F. BUSHNELL.

### A SIMPLE APPARATUS FOR ETHER NARCOSIS.

To the Editors of THE LANCET.

SIRS,—It may interest the many medical men who have seen my ether inhaler in use to learn that I have received a letter and pamphlets from Dr. Longard of Aix-la-Chapelle from which I gather that the inhaler described in your issue of Nov. 9th, p. 1297, is the joint production of Dr. Longard himself and of Dr. Wagner.

In his letter Dr. Longard admits that there are several resemblances (*ähnlichkeiten*) between the Longard-Wagner inhaler and mine, and he then goes on to point out what he is pleased to call several essential differences. He states (1) that in the Longard-Wagner inhaler the ether reaches the absorbent surface through the funnel, while in mine the cover must be removed in order to let the anæsthetic gain access to the interior; (2) that in the Longard-Wagner inhaler there is only one inspiratory valve and that the absorbing material consists of gauze arranged between two metal sieves, while my inhaler is provided with two inspiratory valves; and (3) that in the Longard-Wagner inhaler the ether chamber is warmed by a "thermophor," while in mine the necessary heat is obtained by means of a hot-water jacket.

So much for the essential differences as enumerated by Dr. Longard. To me they seem most trifling variations in detail, and I feel therefore justified in maintaining that the Longard-Wagner inhaler is practically the same as that devised by me many years ago. That the two inhalers are identical to all intents and purposes may be seen by comparing the diagrams of my ether inhaler in THE LANCET of July 5th, 1884, p. 19, and of the Longard-Wagner ether inhaler in THE LANCET of Nov. 9th, 1901, p. 1297.

I do not assert that Dr. Longard and Dr. Wagner have derived the idea of their inhaler from previous acquaintance with mine, but the similarity between the two is, to say the

least, sufficiently remarkable to call for comment and to merit explanation.—I am, Sirs, yours faithfully,

P. BLAICKIE SMITH, M.D. Aberd.,  
Consulting Physician, late Physician and Lecturer on  
Clinical Medicine and Anæsthetist, to the  
Aberdeen Royal Infirmary.

San Remo, Italy, Dec. 2nd, 1901.

### MEDICAL BIBLIOGRAPHY.

To the Editors of THE LANCET.

SIRS,—With reference to the apprehended discontinuance of the *Bibliographia Medica* referred to in THE LANCET of Dec. 7th, p. 1611, the following quotation from the *Journal of Balneology and Climatology*, January, 1900, p. 68, may be useful: "From Paris, 93, Boulevard St. Germain, we have received a circular announcing that the work of the index will be carried on by a French firm under the name of *Bibliographia Medica*—sur le modèle de l'Index Medicus Américain—the first number is to appear immediately." There is, of course, the *Medical Review*, London.

I am, Sirs, yours faithfully,

CHARLES G. STUART-MENTEATH.

Upper Bedford-place, London, W.C., Dec. 9th, 1901.

\* \* The first number (that for January, 1900) of the *Bibliographia Medica* was noticed by our Paris Correspondent in THE LANCET of March 3rd, 1900, p. 660.—ED. L.

### THE ORGANISATION OF THE PROFESSION. (FROM OUR SPECIAL COMMISSIONER.)

*The Early History and Formation of the Birmingham and District General Medical Practitioners' Union.*

THE thoughtful student of history will not fail to observe that revolutions, especially the more successful revolutions, have originated from the higher classes and not, as is too hastily supposed, from the lower classes. It is when the pinch is felt by at least a section of the governing classes that the situation becomes dangerous. The great French revolution was in a large measure the work of the encyclopædists who belonged to the best educated classes and were patronised by a considerable section of the aristocracy, while such men as Mirabeau and St. Just were members of the nobility. So also in smaller movements the same rule applies, and has yet again been demonstrated by recent occurrences at Birmingham. Here the medical profession were in a deplorable position. The grievances denounced under the heading of "The Battle of the Clubs"<sup>1</sup> and of "Hospital Abuse"<sup>2</sup> set forth the details of the prevalent unfair competition, the spread of abuse under the mantle of pretended charity, and the sweating of members of the profession by lay speculators. These articles also pointed out how the marvellous success and skill shown in organising the Hospital Saturday Fund had brought into existence a power stronger than that of the trade unions which might largely control the management of the hospital and other charities and seriously interfere with the interests and position of the members of the medical profession. On the other hand, there was little or nothing to indicate the existence of any countervailing force capable of holding in check these menacing developments. What few efforts had been made at organisation by the medical men of Birmingham had rapidly collapsed without bearing any fruit. Indeed, the despondent tone of many of the local practitioners and consultants with whom I discussed these questions at the time led me to conclude that there were special psychological influences in Birmingham which rendered the work of organising the medical profession more difficult there than in many other towns and centres. Now that it is proposed by the British Medical Association to organise its members everywhere throughout the kingdom on the same basis, it becomes of increasing and of practical importance to observe how the difficulties and facilities vary from

<sup>1</sup> See THE LANCET, Jan. 4th (p. 69) and 18th (p. 199), 1896.

<sup>2</sup> See THE LANCET, July 31st (p. 284), August 14th (p. 415), and Sept. 4th (p. 622) and 18th (p. 745), 1897.

place to place. In respect to organisation, Birmingham presented, it seemed to me, the same disadvantages as does a new and prosperous colony. It was peopled to a large extent by men who had rushed in from the outside, who had no local ties, who did not desire to make the town their permanent home, or who came exclusively for the sake of higher wages and better monetary prospects. Where there is an abnormal rush for wealth the work of organisation is always difficult, and, as a case in point, trade unionism is much weaker in the United States of America than in England; it is likewise weaker in Birmingham than in other parts of the kingdom where the local industries have developed in a more stable manner. Or, to give a wider example, the rapid growth of modern industrialism and commercialism throughout Europe broke up the ancient guilds. These considerations led me to say<sup>3</sup>: "Among such a population it is difficult to spread altruistic ideas; it is a wild endeavour all round after business each for himself, and but few pause to consider what are their duties to society. This spirit also animates more or less—let us hope very much less—the medical profession and therefore it has been more particularly difficult to group the medical men together and to get them to put their personal interest in the background so as to defend the position of the profession as a whole." The remarks gave offence at the time to a prominent member of the profession practising in Birmingham, but the only argument that he adduced really tended to prove my contention. He urged that such great public spirit had been shown by the inhabitants that Birmingham had acquired the reputation of being the best governed city in the world. Undoubtedly the municipality of Birmingham has been induced by its electors to take the initiative in respect to several very important public enterprises. It will, however, be noticed that wherever voluntary organisation is weak there will be found the loudest demands for State or municipal interference. The workers of England, as compared with the workers of the continent, have been the last to demand State interference in regard to their economic conditions; but then they possess the strongest and best organised trade unions. On the other hand, the members of the medical profession are as yet but feebly organised, and therefore on all sides it is urged that the General Medical Council should interfere or that the law should be enlarged so as better to protect the profession. In these economic questions medical men are not different from other classes of the community. The lessons of history apply to them as to other mortals, and they must likewise yield in some degree to the social influences by which they are surrounded. It is very certain that medical men after a prolonged residence in such towns as Eastbourne or Yarmouth will have ideas different from those entertained by practitioners who have lived in centres of commercial and manufacturing enterprise such as Glasgow or Birmingham. It should be possible to study and to record such differences without giving offence to anyone.

Fortunately, within the last two years so great a change has taken place in Birmingham that it may be qualified as being, in its way, quite a little revolution. Though insisting that the economic conditions prevailing in Birmingham were not favourable to the work of organisation, I nevertheless gave a very lengthy account of the widespread and skilful organisation of the Hospital Saturday Fund. In this I did lay myself open to a charge of inconsistency, but my critic failed to see this point. The explanation of such a contradiction rests on the fact brought forward in my opening remarks that revolutions often come from a class above that mainly affected. It was not the people concerned, it was not the poor and the working classes who organised the Hospital Saturday Fund. Its present success is due mainly to the eloquence, indomitable energy, and consummate organising capacity, not of a workman, but of Mr. Smedley, who is an accountant. Alderman Cook and other gentlemen and business men have also helped in the task, and what the workmen are now able to do for themselves is due to the teaching which they received from those who stepped out of a higher class to help them. The Hospital Saturday Fund, which started in 1874, was at first merely a collection made principally among working-men on a certain day in the year. During the first years the sums raised varied from a little more than £3000 to a little less than £5000. It was not till

after 1885, and when Mr. Smedley appeared on the field, that the whole system of collection was altered and so extended that five years later, in 1891, the amount collected had more than doubled, and was equal to £11,000. The collection made on Hospital Saturday represents but a small fraction of the total sum obtained, which now exceeds £18,000. This is gathered in by penny weekly collections enforced by social and moral pressure in nearly all the factories and workshops of Birmingham. When I wrote last on the subject I pointed out that in 1895 the medical charities, the hospitals of Birmingham, had a yearly income of about £45,000 including the £10,000 given by the Hospital Saturday Fund, and that, with the balance remaining, this fund had already organised convalescent homes and nursing institutes of its own. It then occurred to me that if the Hospital Saturday Fund were to withdraw its support the hospitals would be on the verge of bankruptcy. Circumstances might arise which would lead the managers of this fund to prefer to establish hospitals of their own, under their exclusive management, with a paid staff, just as they had already successfully done with regard to their own convalescent homes. The existing hospitals would then be in sore difficulties and to prevent such a contingency many concessions had to be made.

This, however, has not yet been attempted, but the proposed creation of the Consultative Institute was a step in this direction. Not content with possessing its own convalescent homes and its own trained nurses the committee of the Hospital Saturday Fund determined to have its own staff of consultants. Again this was a movement that did not spring from the workmen but from a class above them. It was not the suggestion of the workman; it was a proposal originally made by Mr. Arthur Chamberlain. This gentleman, who is a wealthy local manufacturer and company director, was one of the leading members on the committee of management of the Women's Hospital. Nor does he seem in this matter to have been at first particularly concerned about the working classes and the poor generally. On the contrary, he had for a long time been using his best endeavours to persuade the staff of the Women's Hospital to give advice to a better class of patients. Anxious, perhaps, to increase the income of the hospital he proposed that the better class of patients should be charged a fee of 5s. and that half of this sum should be paid to the medical staff and the other half reserved to help in covering the working expenses of the hospital. But to the honour of the medical staff it must be recorded that they repudiated this essentially commercial proposal. They were not willing to be thus employed as instruments for competing against their brothers in the profession. The hospital to them remained a charitable institution and not a commercial enterprise. It was after the failure of this scheme that Mr. Arthur Chamberlain addressed himself to the committee of the Hospital Saturday Fund and urged that they should form a consultative institute. So great, apparently, was Mr. Arthur Chamberlain's desire to bring the members of the profession, and especially the consultants, under the thralldom of commercial laws and methods that he even offered to be personally responsible for half the financial loss if the enterprise failed to pay its expenses. The idea was that a staff of consultants should be appointed as the servants of the institute at a salary of £500 per annum. The outlay was to be met by half-guinea fees which the patients were to pay, not to the medical men, but to the institute for each consultation. Of course, if such an institute possessed a competent medical staff private consultants would lose many of their patients who actually paid their guinea fees and could well afford to do so.

Thus, most fortunately for the interests of the profession at large, a blow was aimed not, in this instance, at the poor and underpaid general practitioner, but at the highest, most prosperous, and best paid medical men. The great difficulty in the work of organisation has been due to the indifference and the ignorance of the more prosperous medical men, and notably of the consultants. They often do not know or have forgotten what the poorer general practitioners have to endure. The battle of the clubs does not affect them because they have no club patients. They likewise are not deeply concerned in the abuse of hospitals, for if sufferers go there who can pay 1s. 6d. or 2s. 6d. in fees these are not the class of patients whom the consulting physicians or surgeons of the hospitals are in the habit of attending. Therefore the economic difficulties that beset the

<sup>3</sup> See THE LANCET, July 31st, 1897, p. 284.

majority of the profession do not affect the few who are exceptionally prosperous. Consequently, the latter have no personal need of joining militant medical unions formed to deal with these economic problems, and this has always been one of the greatest obstacles in the way of the organisation of the profession. Here, however, in Birmingham the interference of Mr. Arthur Chamberlain has most happily removed this very serious stumbling-block. He has provided a grievance where no grievance existed, and thus has brought into line the very men who were the most difficult to move. There were about 50 medical men in Birmingham who claimed to be consultants or specialists, and they at once determined to make a stand against the formation of the proposed Consultative Institute. They met together, they appealed to the Lord Mayor to intercede between them and the Hospital Saturday Fund Committee, and they explained that they were themselves quite willing to give advice for half a guinea to poor persons who could not afford to pay more. Indeed, this was already a very usual practice; therefore there was no need of a consultative institute unless to obtain advice at a cheaper rate for those who could afford the guinea fee and to convert independent medical men into the paid servants of an institute managed by a lay committee. But in taking such action the consultants felt that they needed the support of the whole profession. Therefore they summoned a general meeting at which it was decided that anyone who accepted service in the pay of the Consultative Institute should be boycotted by the whole profession. Thus brought together, however, the medical practitioners of Birmingham were not content to discuss merely the question of the Consultative Institute. This was a grievance which concerned more especially the consultants, but the general practitioners had grievances of their own just as urgent and far more numerous. They were quite ready to act in union to defend the interests of the consultants, but they also, and very naturally, desired to employ the force thus acquired in defence of their own interests. Hence it came about that a proposal was made to found a permanent medical union dealing with all questions affecting the economic and ethical interests of the profession. The first meeting—a comparatively small one—was held at the Victoria Hall, Aston, and it was then resolved to summon all the general practitioners within a radius of five miles to meet at the Grand Hotel, Birmingham, so as to decide whether a union should be established. About 100 practitioners attended this second meeting. The proceedings were throughout most enthusiastic, and it was then resolved to form the Birmingham and District General Practitioners' Union. A committee was elected to draft rules and as a result the new society was formally constituted on Oct. 1st, 1899. The second annual meeting held by this union has already been described\* and it was then stated that it numbered 253 members. The work of organisation has, therefore, at last proved successful even in Birmingham. To me, who saw and described four and five years ago the state of disunion and chaos that then prevailed in the ranks of the profession, this great change appears in the light of a small revolution. But, as I remarked in my opening observations, it is a revolution that originates from the higher ranks of the profession. It was not till the consultants had put their shoulders to the wheel and given the necessary impetus that the movement gathered strength and became really successful. The dual principle, action and reaction, finds in these events another illustration of its truth. But for Mr. Arthur Chamberlain's interference in the affairs of the medical profession the state of disunion prevailing in its ranks might have continued to this day. The action which he took on one side produced reaction on the other side, and thus the Birmingham and District General Medical Practitioners' Union has been called into being.

(To be continued.)

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

### *Another Liverpool Expedition to West Africa for the Study of Malaria.*

Dr. Charles Balfour Stewart sailed from Liverpool for West Africa on Nov. 30th, under the auspices of the Liverpool School of Tropical Medicine, to investigate further

the causes of malaria. He will proceed at the outset to Sierra Leone, in order to study the methods at present adopted there with such success by Dr. Logan Taylor. He will first attack the disease in the town of Cape Coast Castle, where there is now a considerable mortality amongst Europeans. He will have full charge, under Major R. Ross's directions, of the operations on the Gold Coast. The *modus operandi* will be that of drainage of the ground and clearing out broken vessels which may hold water by means of large gangs of native workmen, as is done in Freetown, and by other means to effect sanitary improvements. Dr. Stewart has been engaged by the Liverpool School for one year, but he will probably remain as long as his services are needed to carry on the important work on the Gold Coast. The health conditions of the gold-mines will be a further object of his attention, as the school authorities have instructed him to visit the mining districts where possible. His movements, however, will be largely determined by the wishes of the Governor of the Gold Coast. Efforts for the eradication of malaria will thus shortly be general all along the West Coast of Africa from Gambia to Lagos, three of these colonies, Gambia, Sierra Leone, and the Gold Coast, being dealt with by the Liverpool School of Tropical Medicine. Dr. Stewart has done important work in India in the matter of plague. He also acted as assistant to M. Haffkine at the malarial research laboratory at Bombay.

### *The Proposed Fellowship for the Promotion of Physical Research at University College, Liverpool.*

Mrs. George Holt and Miss Holt have generously made the offer to the council of University College to found a Fellowship to promote research in physics to be associated with the name of Dr. Oliver Lodge, the late Professor of Physics at the College, in commemoration of his services to the College, to the city, and to science. The Fellowship will be tenable for one year, re-election being allowed, but it may not be held by one person for more than three years in all. Its annual value will be £100. or more. A prize to be called the "Oliver Lodge Prize" has also been established by Dr. Lodge's friends and late colleagues, to be awarded annually to the best student in physics in the third year of the honours course. Both offers have been gratefully accepted by the council. Detailed plans and specifications for a new laboratory for the department of physics, now in charge of Professor Wilberforce, will be shortly placed before the council of the college for their approval.

### *Memorial to the late Sir Henry Tate, Bart.*

The Dowager Lady Tate has given a donation of £1000, in memory of her late husband, Sir Henry Tate of Liverpool, to the Queen Victoria Jubilee Institute for Nurses, to be added to the sum given by her late husband which is used for the benefit of the Queen's nurses themselves in times of sickness.

### *Liverpool Boards of Guardians and Epileptic Patients: Proposed Conference.*

Provision for the proper accommodation of sane epileptics is urgently required at the three Liverpool workhouses, present conditions being altogether inadequate and unsuited to the treatment of that class of patients. The matter has been the subject of frequent discussions of late at the three boards of guardians of Liverpool, Toxteth, and West Derby. The Blackburn Union have addressed a communication to the three boards of guardians, asking them to send representatives to a conference of Lancashire unions to be held, if possible, in Blackburn, to discuss the entire question. The Liverpool Select Vestry and the Toxteth Board of Guardians have decided to agree to the request. I have not been able to discover the intentions of the West Derby Board in the matter.

### *The Lancashire Asylums Board.*

At the recent annual meeting of the Lancashire Asylums Board held in the County Hall, Preston, the chairman (Alderman W. S. Barrett) moved the adoption of the report of the deputation appointed to wait on the Commissioners in Lunacy with reference to the board's agreement that the Winwick Asylum should be wholly devoted to chronic cases and filled exclusively by transfer from the other asylums. The report stated that the deputation urged that chronic cases should be allowed to be sent direct to Winwick Asylum from workhouses or their own homes, thus avoiding the expense of first sending them to one of the other

\* THE LANCET, Nov. 30th, 1901, p. 1536.

asylums. The Commissioners, however, contended that if chronic patients were received into Winwick Asylum direct advantage would be taken to send patients other than chronic and for whom there was no proper accommodation, thus placing the medical superintendent in the invidious position of having to decline to admit them. That being so, they could not see their way to alter the original agreement.—Mr. H. R. Ley, the medical superintendent at Prestwich Asylum, has resigned owing to failing health.—Mr. F. Perceval, the medical superintendent at Whittingham Asylum, has been transferred to Rainhill.

#### *The Dangers of Wearing Flannelette.*

Presumably on account of the alarming number of recent deaths of children in Liverpool owing to the ignition of flannelette garments, the Watch Committee have received a communication from the Home Office calling attention to the frequent fatal burning cases which took place in the city through the ignition of young children's clothing. The matter was referred to the Fire Police Sub-Committee for consideration.

Dec. 10th.

### WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

#### *Isolation Accommodation in Herefordshire.*

THE special industries of Herefordshire—hop-growing and fruit-culture—attract to the county during two or three months in each year several thousands of the poorer classes from the populous towns in the neighbouring counties of Staffordshire and Warwickshire. The risk of infectious diseases being introduced is therefore very much greater than in rural districts where no such immigration takes place. In the whole of Herefordshire only one sanitary authority has deemed it necessary to provide a permanent isolation hospital, and the county council has taken no steps, as it is empowered to do by the Isolation Hospitals Act, 1893, in the direction of ascertaining whether sufficient isolation accommodation exists in the county. On Dec. 7th a discussion took place at a meeting of the Hereford Rural District Council upon a proposal which was made by the chairman of the board of guardians to establish three cottages in different parts of the district into which infectious cases could be removed. The novelty of the scheme lay in the suggestion that when the nurses, who would live in the cottages, were not occupied with nursing cases of infectious disease their services should be available either as district nurses or as workhouse nurses. It is to be regretted that the proposal was not accepted, and a very heavy responsibility will rest upon those members of the council who opposed it if they do not assist in some way in providing means for isolating infected persons in the district.

#### *Swansea General Hospital.*

The board of management of the Swansea General Hospital decided on Dec. 4th to erect a second theatre for minor operations at a cost of £200. Further alterations, which it is estimated will cost £1300, were also resolved upon. These include two isolation wards, additions to the nurses' home, a rearrangement of the dispensary, and a detached out-patient department having two consulting-rooms, three dressing-rooms, a nurses' room, and a waiting-room to accommodate 100 persons.

#### *Colwyn Isolation Hospital.*

The Colwyn Bay Urban District Council has decided to erect an isolation hospital at a cost of £5700. The buildings will include a separate administrative block and two ward pavilions having a total accommodation for 16 patients.

#### *Cardiff Water-supply.*

Nearly the whole of the water for the supply of Cardiff and Penarth is obtained from the Breconshire hills and the decreased rainfall on the gathering grounds during the present year has materially diminished the amount of water in the reservoirs. In November a rainfall of only four inches was recorded, or exactly one-half of that recorded during November, 1900. The total storage capacity amounts to 1,000,000,000 gallons, and in May of this year there were in the four reservoirs 970,000,000 gallons, an amount which was reduced by Dec. 1st to 796,000,000 gallons. The total daily consumption averages 5,000,000 gallons, equal to about 27 gallons per head of the population. Although Cardiff is

practically a town provided with water-closets, there are a large number of houses without a flushing apparatus.

#### *Water-supply of Glamorganshire.*

The Sanitary Committee of the Glamorgan County Council has instructed the county medical officer of health to report in June next upon the water-supplies of the county. The only complete report hitherto made has reference to the Rhondda district, where there is a population one-fifth that of the whole county, and was compiled by the medical officer of health for that district. In some of the colliery districts the supply is lessened owing to the subsidences which have taken place through the working of the mines, so that gathering grounds which formerly produced large quantities of water are now of comparatively little value.

Dec. 10th.

### SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *The Victoria Infirmary, Glasgow.*

THE annual report of the governors of the Victoria Infirmary, which was issued on Dec. 3rd, gives satisfactory evidence of the activity and efficiency of the institution. The only qualification is provided by the balance-sheet, which shows a deficit for the year amounting to over £3500. To meet this it has been necessary to draw upon legacies and other sums which belong more properly to the capital account. The year has been marked by the erection of a new pavilion which provides several small wards for isolation purposes, two additional operating-rooms, a laboratory, and a room for the treatment of skin diseases by the Finsen and other allied forms of treatment. The expense of the appliances for this last-mentioned purpose, as well as the provision of a complete installation of a Roentgen-ray apparatus, has been undertaken by Mr. Archibald Walker, a member of the committee of management. The governors draw attention to the fact that the requests for admission to the hospital continue to be far in advance of the accommodation afforded, the numbers waiting for admission frequently reaching the total of 100. In these circumstances they express the opinion that the extension of the hospital must soon be undertaken. The building of a new wing will cost, it is estimated, from £25,000 to £30,000, and an appeal for this sum will shortly be made to the public. A further expense which cannot long be avoided is the provision of a new out-patient department, the demand for which is becoming increasingly urgent. At the annual meeting on the motion of the Lord Provost the report was adopted. A new feature of the management was provided by the election of two ladies to the governing board. This point at one time threatened to produce some degree of controversy, but in the end unanimity was secured and the ladies were appointed with enthusiasm.

#### *Glasgow Royal Infirmary.*

It is announced that, thanks to the generosity of a few gentlemen, the Royal Infirmary has been presented with a new and complete installation of medical and surgical electrical apparatus. The equipment of the hospital in this direction has for some time been well above the average, mainly owing to the special interest taken in the department by one or two members of the staff. The new installation will include arrangements for obtaining both high-potential and high-frequency currents as well as apparatus necessary for the treatment of lupus by various forms of light rays. Finsen's method has been for some time in operation at the hospital and both it and the x-ray and other electrical methods are to be presented in their most modern form. The whole installation has been arranged so that it can be transferred to the new hospital whenever that building is ready for its reception. The office of superintendent to the infirmary is advertised as about to become vacant. The salary is to be £500 per annum, with board and free house, coals, and light.

#### *Glasgow New Small-pox Hospital.*

The proposal to erect a new small-pox hospital at Lethanmill appears likely to lead to some controversy. At a recent meeting of the district committee of the Lanark County Council it was pointed out that the site of the hospital was in close proximity to the reservoir from which a large district, involving some of the Glasgow suburbs,

receives its water-supply. During the discussion some very energetic phrases were applied to the corporation's proposal, and it was agreed to communicate to the Local Government Board an expression of the committee's disapproval of the selected site.

Dec. 10th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

*The late Mr. William Smyth, L.R.C.S. Irel., of Burton Port.*

THE melancholy death of Mr. W. Smyth of Burton Port and Arranmore Island from typhus fever has given rise to a feeling of admiration for his heroism and of widespread sympathy with his family, left poorer by his loss. While conveying some fever-stricken patients in an open boat over the four miles which separate the island from the hospital on the mainland Mr. Smyth contracted typhus fever from which he died. A subscription list, headed by the Presidents of the Royal College of Physicians of Ireland and the Royal College of Surgeons in Ireland, has been opened and many donations have already been received. Letters of sympathy, with subscriptions, have also just been received from His Excellency the Lord Lieutenant, His Eminence Cardinal Logue, and His Grace the Duke of Abercorn. A sum of over £400 has already been subscribed in Belfast.

*Honours to the Irish Hospital Corps.*

On Dec. 7th his Excellency the Lord Lieutenant formally presented medals to the Irish Hospital Corps who have recently returned from South Africa. The members of the corps assembled in the Upper Castle Yard, under the command of Sir William Thomson, their surgeon-in-chief. The Lord Lieutenant, who was accompanied by the Duke of Connaught and Lady Cadogan, delivered an interesting address in which he highly praised the staff of the hospital and the work which they had accomplished at the seat of war, expressing at the same time his regret at the unavoidable absence of Lord Iveagh, to whose magnanimity and benevolence the organisation of the hospital was entirely due. His Excellency took the opportunity of calling attention to the brilliant services of the late Sir William MacCormac during the time of war and alluded pathetically to the self-denying work recently performed in Ireland by Mr. William Smyth of Donegal "who met his death the other day under such painful and yet under such glorious circumstances." Sir William Thomson, in reply, thanked his Excellency on the part of all the members of the corps, and conveyed the apology of Lord Iveagh for his quite unavoidable absence. The members of the surgical and medical staff who received decorations were: Sir William Thomson, Mr. G. Stoker, Dr. Coleman, Dr. Friel, and Dr. Thomas Edwards.

*The Ulster Medical Society.*

The second public meeting of the session 1901-1902 was held in the Belfast Museum on Dec. 5th, the President, Professor W. Whitla, M.D., occupying the chair.—Dr. W. B. McQuitty showed two patients suffering from Myxœdema and gave details of three cases illustrated by photographs showing their condition before and during treatment.—Dr. A. Fullerton read notes of a case, illustrated with photographs, of a child with Penile Hypospadias and Cleft Scrotum and discussed the surgical treatment.—Professor J. L. Smith and Dr. J. S. Darling showed the Kidneys and Bladder from a case of Enlarged Prostate.—Dr. V. G. L. Fielden showed an apparatus for the Continued Administration of Nitrous Oxide and Oxygen.—Dr. T. S. Kirk described a Modification of Thiersch's Method of Skin-grafting.—Dr. Charles O'Neill read a paper, illustrated with lantern slides, on the Biological Purification of Sewage.—In the discussions on these communications the following took part: the President, Dr. A. B. Mitchell, Professor J. W. Byers, Dr. W. Calwell, Dr. A. Dempsey, Dr. J. Rusk, and Dr. H. O'Neill.

*The Royal Victoria Hospital, Belfast.*

The shareholders of the Oceanic Steamship Co. (better known as the "White Star" line) have decided to honour the memory of Mr. T. H. Ismay, the late chief of the line, by giving £10,000 to the Liverpool Seamen's Pension Fund (which was established by Mr. Ismay in 1887), and also by giving £10,000 towards the endowment of a ward in the Royal Victoria Hospital, Belfast, to be called the "Thomas

Henry Ismay Ward." By these two munificent gifts the connexion of the "White Star" line with Liverpool (where the head offices of the company are located) and with Belfast (where, in the great yard of Hartland and Wolff, the ships of the line were built) is emphasised. Shortly before his death Mr. Ismay was made an honorary freeman of Belfast.

*Queen's College, Belfast.*

Professor J. Symington has been appointed registrar of Queen's College, Belfast, in place of Professor J. M. Purser, resigned.

*Belfast District Lunatic Asylum.*

In his report as inspector of asylums Sir G. P. O'Farrell points out that at the day of his visit there were 713 patients at Belfast, 150 at Purdysburn, and 62 at Ballymena; and inasmuch as the old asylum only provided legitimate accommodation for 440 patients it would be evident how greatly overcrowded the institution was, and it was only by the excellent administrative arrangements and by keeping the patients as much as possible in the open air that this serious overcrowding had not prejudicially affected the health of the inmates. The committee had arranged to meet this overcrowding to some extent by building two villas on the Purdysburn estate. Sir G. P. O'Farrell says that he was pleased to find every part of the asylum clean and orderly. The dietary was satisfactory and suitable to the needs of the patients, and the amusement of the patients continued to receive due attention. Dr. R. A. L. Graham, the junior assistant medical officer, continued to take great interest in pathological work. The medical books were carefully kept and the general management of the asylum, the inspector reports, bore distinct evidence of the zeal and ability of the medical superintendent (Dr. W. Graham) in the discharge of his duties.

*The late Sir William MacCormac.*

The greatest sorrow was felt in Belfast on Dec. 4th, when the very sudden death at Bath of Sir William MacCormac was announced. His close connexion with Belfast was brought out in your full obituary notice.—At a meeting of the Ulster Medical Society held on Dec. 5th, on the motion of Professor Byers, seconded by Dr. Dempsey, the following vote of condolence was passed in silence and ordered to be entered on the minutes of the society and a copy to be sent to Lady MacCormac:—

That the members of the Ulster Medical Society desire to take this the earliest opportunity of expressing their great regret at the loss they have sustained through the sudden death of Sir William MacCormac, Bart. Originally an ordinary, and afterwards an honorary, member of the Ulster Medical Society, he took the deepest interest in its affairs and the members have followed with pleasure and pride the successive stages of his brilliant career since he left Belfast. The son of a distinguished Belfast medical man, Sir William MacCormac always maintained the highest traditions of the profession. The members of the Ulster Medical Society wish to express their sincere sympathy with Lady MacCormac in her present deep trial.

At a meeting of the board of management of the Royal Victoria Hospital held on Dec. 7th, on the motion of the Chairman (Mr. William Crawford), seconded by Professor Byers, a vote of condolence was passed with Lady MacCormac on the death of her distinguished husband who had been house surgeon, surgeon, and consulting surgeon at various times to that institution.

Dec. 10th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

*Reports upon Epidemic Diseases.*

AT the meeting of the Academy of Medicine held on Nov. 26th M. Landouzy read the report of the commission upon epidemic diseases. The report laid great stress upon the absolute incompleteness of the returns furnished by the various prefects. The figures which are given as to the different contagious diseases, in conformity with the law of 1892, are very incomplete, and most of the reports give no statistics either as to the incidence of a disease or its fatality. Influenza is responsible for a large number of deaths by reason of complications involving suppurative affections. Cerebro-spinal meningitis is fairly common, but small-pox is rare and almost unknown in certain districts, as for instance Bordeaux, where vaccination is rigorously carried out. Wandering pedlars have imported this disease into certain districts and

M. Landouzy maintained that vaccination and revaccination should be carried out in the case of such persons. The death-rate from diphtheria has fallen considerably, thanks to the very early use of Roux's serum. A certain number of cases of typhoid fever are put down to infection by the inhalation of dust. The report further draws attention to the necessity for distributing information as to general and personal hygiene in all scholastic establishments. The report also asks for the creation of a sanitary inquiry into the health of both the civil and the military sections of the community. Information on these points is much wanted to prevent the spread of disease by patients who leave the hospitals before they are completely cured. For instance, when a tuberculous patient is allowed to return home his family ought to be told of the various measures necessary to prevent him from becoming a focus for the spread of the disease. Three very interesting reports were sent in by Dr. Kermorgan, Inspector-General of the Colonial Medical Service. One dealt with yellow fever in Senegal, one with tuberculosis in the colonies, and the third with infectious disease in the colonies.

#### *The Physiological Effects of Balloon Ascents.*

At the meeting held on Nov. 25th M. Gaule laid before the Academy of Sciences the result of some researches which had been undertaken by himself with a view to ascertain whether the results of a balloon ascent were comparable with those obtained at a high altitude on land—e.g., at the top of a mountain. The most notable of these is a marked augmentation in the number of red corpuscles. Viaux and sundry observers who followed him have ascertained that at a high altitude there is a great increase in the number of red corpuscles. Thus in the Cordilleras at a height of 4000 metres, Viaux found 8,000,000 red corpuscles per cubic millimetre. M. Gaule wished to see whether in a balloon ascent, where ascension is very rapid and entails no muscular exertion, a similar phenomenon would occur. He made two investigations at heights of 4200 and 4700 metres and found in himself 8,000,000 red corpuscles per cubic millimetre. Further, M. Gaule at a height of over 4000 metres made some blood-films stained after Ehrlich's method with eosin and hæmatoxylin. He found numerous red corpuscles which showed a nucleus coloured blue by the hæmatoxylin. This nucleus was in many instances segmenting, and also groups of three or four corpuscles were seen as if they had undergone subdivisions. Similar preparations made before the ascent showed no such appearances. M. Gaule therefore considers that at high altitudes there is an actual formation of red corpuscles and that this takes place with great rapidity. At the following meeting M. Tissot and M. Haillon gave an account of researches on a somewhat analogous subject. On Nov. 21st they undertook some researches at various altitudes into the physics and chemistry of the respiration. Experiments were made at the following heights: 1350 metres, 2600 metres, and 4450 metres in the case of M. Tissot, and at 1700 metres and 3500 metres in the case of M. Haillon. The chemical phenomena of the respiration did not vary appreciably at these different altitudes. The respiratory rhythm, however, was greatly modified. Although the total quantity of air entering the lungs was less the number of respirations was not sensibly altered. It would thus appear that at high altitudes the air is purer and more completely used.

#### *The Fatal Accident at the Lariboisière Hospital.*

I have already acquainted your readers<sup>1</sup> with the details of the fatal accident at the Lariboisière Hospital, owing to the mistake of a nurse who administered chloride of zinc as an enema. The court of first instance has sentenced the matron of the hospital to two months' imprisonment and the director of the hospital to 15 days' imprisonment as being responsible for the accident, with right of appeal in both cases. The nurse was given three months' imprisonment, also with right of appeal, but she accepted the sentence. The ninth division of the Court of Appeal, before which came the cases of the matron and the director, has just delivered judgment. The nurse alone was considered guilty. The judgment stated that the vessel from which the nurse drew the fluid employed for the enema was labeled "chloride of zinc" sufficiently legibly for the court to read it, and that the error was that of the nurse alone. The matron and the director were acquitted.

Dec. 10th.

THE LANCET, April 20th, 1901, p. 1174.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

### *The Agglutination of Tubercle Bacilli and its Diagnostic Value.*

At a meeting of medical officers of consumption hospitals Professor Koch recently read a paper on the Agglutination of Tubercle Bacilli and its Diagnostic Value. In this paper, which has been published in the *Deutsche Medicinische Wochenschrift*, he said that cultures of the bacilli of enteric fever, cholera, and bubonic plague agglutinated by the addition of blood serum of patients suffering from these diseases and that this fact was of great diagnostic importance. Dr. Arloing and Dr. Courmont had described a method of causing tubercle bacilli to become agglutinated, provided that they had been cultivated on potatoes, but their method had not proved to be trustworthy. Professor Koch therefore proceeded in another way, of which the following is an outline. The essential is that weighed quantities of pulverised cultures of tubercle bacilli are mixed with a solution containing 0.5 per cent. of carbolic acid and 0.85 per cent. of sodium chloride and then diluted with the same fluid to 1000 times the weight of the dry culture. This test fluid is agglutinated only by the serum of a tuberculous animal, the serum of non-tuberculous animals having no influence on it. The agglutination is especially marked when one part of serum is mixed with nine parts of test-fluid, but is perceptible when one part of serum is mixed with 150 parts of test-fluid. Professor Koch then examined the blood serum of different species of animals. He found that in 28 normal rabbits out of 30 the serum had no agglutinating action; the same was the case in goats, asses, dogs, and cattle, with which in only very few instances did agglutination take place. The blood serum of horses, 10 of which were examined, showed considerable spontaneous agglutinating power in mixtures of one part of serum with 25 and even with 50 parts of test-fluid. He then experimented on the artificial increase of the agglutinating power of the blood serum. The serum of goats which had been injected subcutaneously with cultures of tubercle bacilli showed after a few injections agglutination when the proportions of serum and test fluid were 1 to 50 and even 1 to 100; with rabbits the proportions varied between 1 to 100 and 1 to 400; and with horses the proportions were 1 to 200. Professor Koch said that he had reason to believe that animals in which the agglutinating action was increased by injections of tubercle bacilli were at the same time immunised; so that the degree of the agglutination corresponded to the degree of the immunity obtained. The experiments on this subject were, however, not yet finished. He then injected serum of high agglutinating power into tuberculous patients in the hope of obtaining a curative effect, but hitherto without any satisfactory result. He found that the serum was unable to agglutinate the bacilli of diphtheria, enteric fever, and bubonic plague, but that the bacilli of *perlsucht*, tuberculosis of fowls and of fishes, and butter bacilli, which when stained showed the same resistance to acids as tubercle bacilli, were agglutinated by it. Conversely, when animals were immunised by injections of this kind of bacilli their serum was able to agglutinate the bacilli of human tuberculosis. Professor Koch then examined the blood serum of tuberculous and non-tuberculous persons. Among 30 non-tuberculous persons there were five whose serum had an agglutinating power; among 78 consumptives there were five whose serum caused agglutination when mixed with test-fluid in proportions of 1 to 50 or 1 to 25, and there were 14 whose serum acted similarly when the proportions were 1 to 10. There was, in fact, no very marked difference between the serum of both categories and the method was therefore of no use for the diagnosis of tuberculosis. Attention was then drawn to the fact that in the advanced stages of tuberculosis the agglutinating action did not increase, as was the case in plague, enteric fever, and cholera. The cause was, in his opinion, that in the latter diseases substances (alexins) were produced in the blood which conferred immunity to subsequent attacks and that it was owing to the alexins that the agglutination of the bacilli took place. In tuberculosis such substances were not present (an infection by tuberculous virus predisposed to subsequent attacks of tuberculosis) and agglutination therefore did not occur. Professor Koch some years ago, as

mentioned in THE LANCET of April 10th, 1897, p. 1057, described a method of obtaining a certain degree of immunisation, and he employed a modification of this method for the purpose of seeing whether the agglutination was thereby increased in tuberculous patients. In the modified method recently adopted the whole quantity of a pulverised culture of tubercle bacilli was injected and the amount injected must be sufficiently large to produce a rise of temperature of from 1° to 2° C., just as with the old tuberculin of 1890. The injections were then repeated at intervals of from six to eight days and the amount injected was increased till it reached from 20 to 30 milligrammes. The result was that the agglutinating power of the serum was considerably increased in this way but that it decreased when a smaller quantity of bacterial culture was injected. If, notwithstanding the increased injection there was a decrease in the agglutination, intravenous injections must be given. Among 75 patients treated in this way it was found that the blood serum of 65 produced agglutination when mixed with quantities of test-fluid varying from 25 to 300 times its weight and that there were only nine the serum from whom gave no result, the patients being all in an advanced stage of tuberculosis. He was of opinion that it was possible to produce in these cases a sufficient quantity of alexins by this method. That the agglutination was really an indication of the immunising action of the injections might be concluded from the fact that with the establishment of agglutination the general health and the objective symptoms of the patients showed an improvement. Fever was not a contra-indication as regards the injections, for in several cases the fever was found to disappear in the course of the treatment. Finally, Professor Koch recommended that the injections should be continued for at least six months, being given at considerable intervals till the tubercle had disappeared from the sputum.

#### *Deaths of Eminent Medical Men.*

Professor von Liebermeister, a very distinguished teacher of clinical medicine, died in Tübingen (Württemberg) on Nov. 24th. Born in 1833 he studied medicine at Greifswald University and after having become qualified was appointed an assistant to Professor Niemeyer, one of the most celebrated clinical teachers of that time, with whom he went to Tübingen, still in the capacity of his assistant, and subsequently became professor of medicine at the University of Basle in Switzerland. After the death of Professor Niemeyer Professor von Liebermeister succeeded him in the chair of clinical medicine at Tübingen which he held till his death. His principal work was on the theory of fever and the treatment of enteric fever. He was one of the first physicians who used the cold-water treatment in this disease. He was also the author of a book on diseases of the liver.—Dr. Löhlein, professor of obstetrics and gynaecology in the University of Giessen, died on Nov. 24th. He was born in 1847 and after having qualified at Berlin he became assistant to the late Professor Schröder, then chief surgeon to the university lying-in hospital. In 1888 he was appointed ordinary professor at Giessen. His published works treated of rachitic conditions of the pelvis, eclampsia, and osteomalacia. It was owing to him that systematic courses of instruction were made compulsory for registered midwives and that homes were established where women could stay after their confinement.

Dec. 9th.

## Obituary.

SURGEON-GENERAL ROBERT HARVEY, C.B., D.S.O.,  
M.D., LL.D. ABERD., F.R.C.P. LOND.,  
DIRECTOR-GENERAL OF THE INDIAN MEDICAL SERVICE.

In our last issue we recorded the sudden death at Simla of Surgeon-General Robert Harvey, Director-General of the Indian Medical Service, thus bringing to an unexpected end a varied, brilliant, and successful career, at a moment when his tenure of office was drawing to its close and he was ripe for further distinction and honour. Surgeon-General Harvey was among us in England only the other day, apparently in the best of health and spirits, and ready, able, and willing to bring his keen mind to bear on the important questions raised by the reorganisation scheme of the sister service as it affects the department of which he was the head.

Robert Harvey was born at Aberdeen on March 10th, 1842, being the eldest son of Alexander Harvey of Broomhill, Aberdeenshire, Regius Professor of Materia Medica in the University of Aberdeen. He received his general education under private tutors and began his medical studies at the early age of 16 years, taking out courses of lectures both at Aberdeen University and at Glasgow University; he finally took his degree with honours in 1863.

After graduating Robert Harvey's special abilities as a student secured him an appointment as resident accoucheur to the Birmingham General Dispensary and after holding this post for a year he entered the Army Medical Department, taking the second place among 72 competitors. A purely military career, however, did not offer sufficient attractions to a man of his temperament and versatility and in 1865 he entered the Indian Medical Service, landing in India at the end of that year. Immediately after his arrival he took part in the Bhutan campaign of 1865-66, earning a medal and clasp. From 1866 to 1871 he was residency surgeon to the Eastern Rajputana Agency, in which latter year he volunteered for the Lushai expedition, and on its conclusion he served with the Central India Horse for four years. At the expiration of this period he was appointed civil surgeon of Simla for two years (1876-77) and thus began that brilliant period of civil employment by which probably he will be chiefly remembered in India. In 1878 he was offered, and accepted, the post of Sanitary Commissioner for Lower Bengal, filling up spare time by rescuing from oblivion the valuable records of medico-legal work annually buried in the official returns of that province. In recognition of the value of this work he was in 1879 made a Fellow of the Calcutta University. On the retirement of Dr. Edmonstone Charles in 1880 Robert Harvey was appointed professor of midwifery in the Medical College of Calcutta and obstetric surgeon to the Eden Hospital, then almost completed, an institution which by his energy and devotion he succeeded in making the finest and most beautiful building of the kind in India. As a teacher he proved himself to be clear, forcible, and incisive, showing perfect mastery of the subject in which he had already distinguished himself. At this time he entered on a very successful career of private and consulting practice, for which his kindness, his tact, and his professional and general attainments rendered him eminently suited, and wealth and honours began now to be showered upon him. In 1882 he was made a Doctor of Laws of the University of Aberdeen, in 1883 honorary surgeon to the Viceroy, and in 1885 an Honorary Fellow of the British Gynaecological Society. In 1889 he obtained the Membership of the Royal College of Physicians of London by examination. For a short time, also, he officiated, in addition to his other duties, as Principal of the Calcutta Medical College.

By that rule which compels a member of the Indian Medical Service at a certain stage in his career, either to resign his commission and the civil duties for which he is perfectly fitted by ability and inclination, or to accept promotion to the administrative grades, Robert Harvey was obliged to give up civil employment and to return to military duty, and he was accordingly appointed principal medical officer at Peshawur in 1890, and from 1891 to 1893 he acted in the same capacity with the Punjab Frontier Force, during which time he took part in the Miranzai and in the Isazai expeditions, being mentioned in despatches and obtaining the Distinguished Service Order. At this period there occurred a severe and fatal epidemic of cholera at Srinagar in Kashmir, and Surgeon-General Harvey was sent to inquire into and to advise regarding it. For this service he received the thanks of the Governor-General of India in Council.

For a short time in 1893-94 Surgeon-General Harvey returned to civil employment as inspector-general of civil hospitals in Lower Bengal, when he was largely instrumental in bringing to a successful issue the project of an International Medical Congress. This congress was held in Calcutta in December, 1894, and he was appointed its president. At this time, also, the Fellowship of the Royal College of Physicians of London was conferred on him. In 1895 he returned to military employment in the capacity of principal medical officer to the Punjab command, receiving the Jubilee medal in 1897, and the Companionship of the Bath in 1898 for the success with which he conducted the medical arrangements for the Tirah campaign in which he took part.

In 1898 Surgeon-General Harvey rose to the highest appointment in the department to which he belonged and of which he had long been one of the most distinguished

officers—that of Director-General of the Indian Medical Service. During his incumbency of this post India was overwhelmed with famine and plague, and the anxiety and work which these combined calamities entailed on the man who was responsible for the efficiency of the medical arrangements not only for the teeming 300,000,000 of the people of India, but to prevent the conveyance of the pestilence from its ports, must have told severely on a constitution at no time robust and which had been weakened by severe illnesses. These labours doubtlessly contributed to the fatal result of that last illness of which intelligence has so recently arrived. Of Robert Harvey it may truly be said that he was ever lavish of his strength, whether the call upon it was made by his friend, by his patient, by his duty, by his department, or by the Government which he served, and that he was ever actuated only by the highest codes of personal and professional honour. He died at his post, honoured, decorated, and regretted.

Surgeon-General Harvey married Emmie Josephine Drayton, daughter of J. Drayton Grimke, of Ashley Grange and Charleston in the United States. He has left a widow, but no children. In accordance with his wish his body was cremated.

#### HENRY PIERS, M.R.C.S. ENG., L.S.A.,

DEPUTY INSPECTOR-GENERAL OF HOSPITALS AND FLEETS (RETIRED).

DEPUTY INSPECTOR-GENERAL PIERS died at his residence, Burnham, Somerset, on Nov. 30th, in his eighty-fourth year. He received his medical education at Guy's Hospital, taking the qualifications of M.R.C.S. Eng. and L.S.A. in 1840 and 1841 respectively. In 1846 he entered the medical department of the Royal Navy, and served first on the East Coast of Africa, and subsequently in the Arctic Expedition sent in search of Sir John Franklin and his party, and for the discovery of the North-west passage round America. Mr. Piers was on H.M.S. *Investigator* which sailed with H.M.S. *Enterprise* from Plymouth in January, 1850, he being rated as assistant surgeon and Mr. Alexander Armstrong being surgeon. The expedition, as it will be remembered, failed to find Sir John Franklin, but succeeded in discovering the North-west Passage. On his return Mr. Piers received the Arctic medal and afterwards was stationed on the Pacific Coast, chiefly at Vancouver's Island and for a short time in the West Indies. Later, as Deputy Inspector-General of Hospitals and Fleets, he held appointments in Ireland and at Chatham. On leaving the Royal Navy Mr. Piers settled in Burnham where he was highly respected. He was for many years the honorary secretary of the local branch of the Royal National Lifeboat Institution, to which he rendered valuable assistance. The deceased gentleman leaves a son, Major Piers, who is at present invalided home from Cashmere. The funeral took place on Dec. 5th at Barrow Churchyard, near Burnham, amid many tokens of sympathy.

#### JOHN DAVIES HARRIES, M.R.C.S. ENG., L.S.A.

THROUGH the death of Mr. J. D. Harries from pneumonia on Nov. 29th the medical profession in Shropshire loses one of its oldest and most respected members. Though born in Shrewsbury in the year 1835 Mr. Harries came of an old Pembrokeshire family. After serving an apprenticeship with Mr. Henry Keate of Shrewsbury he entered as a student of King's College and became M.R.C.S. Eng. in 1857 and L.S.A. in the year following. In 1860 he was appointed surgeon to the Salop County Gaol, a position which he held at the time of his death. He was also surgeon to the Shrewsbury Penitentiary, honorary surgeon-extraordinary to the Salop Infirmary, and he took an active interest in the British Medical Association as the representative upon the central council of the Shropshire and Mid-Wales branch. Mr. Davies was on the commission of the peace for the borough of Shrewsbury, a trustee of the borough charities, in the administration of which he was particularly interested, and for 25 years, until 1890, he was a member of the Shrewsbury Corporation.

THE Middlemore Post-Graduate Lecture, an annual lecture under the Middlemore Trust, will be delivered at the Eye Hospital, Birmingham, on Thursday, Dec. 19th, at 4.30 P.M., by Mr. H. Eales, senior honorary surgeon to the institution, who has chosen for his subject, "Some Functional Disorders of Vision."

## Medical News.

UNIVERSITY OF CAMBRIDGE.—At the congregation held on Dec. 5th the following medical degrees were conferred:—

*Doctor of Medicine*.—J. Cropper, Trinity; H. W. P. Young, Gonville and Caius; and S. E. Denyer, C.M.G., Queen's.

*Bachelor of Medicine*.—A. T. Fraser, Gonville and Caius.

*Bachelor of Medicine and Bachelor of Surgery*.—F. K. Weaver, Trinity; T. Gillespie, St. John's; and A. C. Ingram, St. John's.

Mr. Edmund Owen and Mr. Mansell Moullin have been appointed Examiners in Surgery and Dr. D. Hood Examiner in Medicine for the current Third M.B. Examination. Mr. H. B. Roderick, Emmanuel, has been appointed Demonstrator of Surgery under Dr. J. Griffiths.

FREEMASONRY.—*Rahere Lodge, No. 2546*.—An ordinary meeting of this lodge was held at the Frascati Restaurant on Dec. 10th. W. Bro. P. S. Abraham, W.M., being in the chair. Mr. Walton R. Read was initiated into Freemasonry. W. Bro. J. Peplow Cartwright, P.G.R. Shropshire, was elected a joining member. Bro. Edge was admitted to the second degree and Bro. Keown to the third degree. The Worshipful Masters of the Middlesex Hospital Lodge, the Chère Reine Lodge, the London Hospital Lodge, and the Cheselden Lodge were elected honorary members of the Rahere Lodge during their year of office. The jewel of a S.G.C. was voted by the lodge to W. Bro. the Rev. Sir Borradaile Savory, Bart., and of a Deputy G. D. C. to W. Bro. Gripper, I.P.M., on the occasion of their appointment to Grand Office by H.R.H. the M.W. Grand Master. A sum of 10 guineas was contributed out of the lodge funds to each of the three Masonic charities. The brethren and their guests afterwards dined together.

#### BRITISH MEDICAL TEMPERANCE ASSOCIATION.

A meeting for medical students was held on Dec. 5th, in the Governors' Hall of St. Thomas's Hospital (by kind permission of the Treasurer). Dr. H. G. Turney, dean of the medical school, presided. In opening the conference he said that he thought the medical profession rather lagged behind public opinion on the subject of temperance. Abroad the reverse was the case. The alcoholic habit was an endemic disease here and was responsible for an amount of disease and death which it was difficult to appreciate. The death certificates in this country did not adequately indicate its extent, but in Switzerland a system of State certification had revealed that during the last 15 years one in 10 males and one in 50 females died from some disease connected with alcohol. In Prussia alone in 1895 over 10,000 people were being treated for the alcoholic habit. This was a problem which it was the special duty of the medical profession to work out. Among those who took part in the discussion which followed were Dr. J. J. Ridge, Dr. C. R. Drysdale, Mr. F. Churchill, and some of the students.

HARVEIAN SOCIETY OF LONDON.—The annual dinner of this society was held on Nov. 28th in the Regent Saloon of the Café Monico. The chair was occupied by Dr. David B. Lees, the President, and 77 members and guests sat down to dinner. Amongst those present were Sir Thomas Barlow, Sir G. Anderson Critchett, Mr. H. G. Howse, Dr. W. H. Allchin, Mr. Howard Marsh, Mr. Alfred Cooper, Mr. Watson Cheyne, Dr. J. Dundas Grant, Mr. G. P. Field, Mr. Edmund Owen, Mr. Noble Smith, and Mr. C. R. B. Keetley. The usual loyal toasts having been proposed by the President, Dr. Allchin, President of the Medical Society, proposed "Success to the Harveian Society," briefly sketching the career of the society from its foundation in 1831 and pointing out the various causes which rendered it such an attractive society.—Dr. Lees responded for the society.—Mr. Keetley then proposed "The Sister Societies" and "Our Guests," drawing a fancy picture of what the profession might become in a few years' time should the members adopt trade union principles in their work.—Mr. Howard Marsh, President of the Clinical Society, responded for the sister societies and Mr. Howse responded for the guests.—"The President" was proposed by Mr. Noble Smith, Dr. Lees replying, and in his speech proposing "The Honorary Secretaries," to which toast the senior secretary (Mr. Hubert C. Phillips) replied.—In the intervals between the

speeches a selection of excellent music under the able direction of Mr. Herbert Schartau was rendered. The artists were Master Harold Davis, Mr. William Fell, Mr. George Stubbs, and Mr. Valentine Hill.

On Dec. 6th, at the Victoria Hall, Weston-super-Mare, Dr. H. A. Ballance delivered an interesting lecture, entitled, "Experience in South Africa while with the Imperial Yeomanry." The rector (the Rev. Prebendary de Salis) presided and the proceeds are to be devoted to the building fund of the proposed sanatorium at Winsley.

**DIPHTHERIA IN GLAMORGANSHIRE.**—At the meeting of the Sanitary Committee of the Glamorgan County Council held on Dec. 6th Dr. W. Williams, medical officer of health of the county, reported that at Cwmavon 100 cases of diphtheria had been notified from January to September, with nine deaths, and that at Aberkenfig 38 cases of diphtheria had occurred, of which 13 (or 33 per cent.) had proved fatal.

**DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATION.**—Under the auspices of the Southern Division of the association the autumnal dinner was held at the Café Monico on Dec. 5th. Dr. Frederick S. Palmer, the president of the association, was in the chair and about 60 members and guests were present. Music was provided by Mr. F. Peachey, Mr. Aspinall, and Mr. F. Ross, and formed a pleasant feature in a successful evening's entertainment.

**VACCINATION PROSECUTIONS.**—At Abertillery Police-court on Dec. 6th two parents were summoned to show cause why they had not paid fines, amounting to £2 10s., respectively, imposed in March last, for failing to comply with the Vaccination Act. The local anti-vaccination society defended, and a plea of "conscientious inability" was raised. The magistrates ordered distress warrants to be issued, to be suspended for a month, or in default seven days' imprisonment as first-class misdemeanants.

**THE LATE DR. W. ROBERTSON.**—The inhabitants of Glanton and district (Northumberland) have erected, by public subscription, a handsome memorial stone in Bolton churchyard to the memory of the late Dr. W. Robertson of Glanton. Dr. Robertson, who died in May last at the ripe age of 80 years, practised for 54 years in the district. He took a great interest in the public affairs of the neighbourhood and was honoured and esteemed professionally and socially by all who knew him. His decease is much regretted.

**WORKMEN'S COMPENSATION ACT.**—At the Cardiff County-court on Dec. 6th a somewhat singular action was brought under the Workmen's Compensation Act. The plaintiff was a woman whose husband is at present in a lunatic asylum and the defendants were the Mountstuart Dry Dock Company. The man was injured in June last whilst at work on a ship in Roath Dock, but there was no evidence as to the actual accident as he was found unconscious in the hold. Whilst under treatment at the Cardiff Infirmary insanity supervened, probably caused by the accident, and it became necessary to remove him to a lunatic asylum. An order was made by consent for £1 per week during incapacity.

**IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.**—The autumn general meeting of the above association was held on Nov. 27th at the Hotel Cecil, London, Dr. William Alexander of Liverpool, the President, being in the chair. There was a large attendance of members. The council reported that Mr. P. J. Freyer, who had held for four years the post of metropolitan honorary secretary, had been appointed chairman of council in succession to Dr. T. Gilbert Smith whose period of office had expired. Mr. Stewart proposed, and Dr. W. H. Bourke seconded, and it was carried by acclamation, that the heartiest thanks of the association should be accorded to Dr. Gilbert Smith for his valuable services at the head of the executive during the last three years. The meeting then adjourned. The members and their guests to the number of 102 sat down subsequently to dinner in the Victoria Hall. The guests of the evening were Sir Charles Crosthwaite, K.C.S.I., late Lieutenant-Governor of the North-west Provinces of India, and his Honour Dr. J. A. Rentoul, K.C., M.P. The toasts were commendably few. The proposers and those who responded included the guests

of the association, the Hon. H. B. Lefroy (Agent-General for West Australia), Mr. Atherley Jones, K.C., M.P., Inspector-General Lloyd, Mr. C. B. Ball, Inspector-General Turnbull, and Surgeon-Captain R. R. Sleman (senior medical officer, C.I.V.). Songs, recitations, and humorous sketches were given by Miss Jessica Leeson, Miss Elsie Southgate, Mr. J. L. Shine, and Mr. Arthur Helmore. Mr. Dunn and Mr. Norfolk Megone accompanied.

MR. G. MELLIN has placed at the disposal of the Prince of Wales's Hospital Fund for London a quantity of Mellin's Food equivalent in value to £10,000 to be distributed among London hospitals at the rate of £2500 worth per annum.

**CARDIFF INFIRMARY.**—Two amateur dramatic performances are to be given at the Theatre Royal, Cardiff, on Dec. 18th and 19th, by gentlemen connected with the various insurance companies of the town, the proceeds of which are to be devoted to the maintenance of an "insurance cot" in the Cardiff Infirmary. Last year, when the scheme was initiated, the sum of £125 was raised for the purpose.

**THE ROYAL NATIONAL PENSION FUND FOR NURSES.**—The authorities of the above fund have issued a souvenir of the recent reception by Her Majesty Queen Alexandra of the Pension Fund nurses at Marlborough House which took place in July last. The fund owed its inception to Sir Henry Burdett and to the generosity of Mr. Junius Morgan, Mr. E. A. Hambro, Lord Rothschild, and Messrs. Anthony Gibbs and Sons, and was incorporated in 1888. Over 9000 nurses have joined it and the souvenir before us will be a pleasant reminder to the members of the Fund of the interest taken in their career by the highest in the land.

**PREVENTION OF TUBERCULOSIS.**—A meeting was held in Plymouth on Dec. 3rd, under the auspices of the Devon and Cornwall Branch of the Association for the Prevention of Consumption and other Forms of Tuberculosis, to consider the desirability of establishing a sanatorium for the open-air treatment of the consumptive poor of Devon and Cornwall. The Mayor of Plymouth presided, and amongst others present were the Earl of Mount Edgcumbe, Mr. J. W. Spear, M.P., Dr. H. Davy (Exeter), Dr. R. H. Clay, Dr. E. Fox, Dr. W. Webber, and Dr. F. G. Bushnell. On the proposition of the Earl of Mount Edgcumbe it was unanimously resolved that it was desirable to establish a sanatorium in the neighbourhood of Plymouth and a representative committee of the two counties was appointed. It was mentioned that an eligible site on Dartmoor had been offered.

**THE ST. JOHN AMBULANCE BRIGADE.**—The Osborn challenge shield, which was competed for on Oct. 26th, in the grounds of the Charterhouse, was first offered for competition in 1900 by Mr. S. Osborn, the chief surgeon of the metropolitan corps. The conditions of the competition are that each division of the metropolitan corps may send a team of four men, accompanied by four other members of the division to act as patients, and that each member of the team shall treat an individual injury and the team collectively a case. Improvised appliances only are used. The following were the competing teams in order of merit: (1) South Metropolitan Gas Company; (2) East Ham; (3) East London; (4) Causton; (5) Merton and Wembley. Recently the honorary surgeons of the metropolitan corps of the brigade gave a complimentary dinner to their chief surgeon, Mr. S. Osborn. Mr. J. Brown presided. Mr. J. Cantlie, in proposing the health of the guest, remarked that the constitution of the service was exactly parallel to the old organisation of the Army Medical Corps. That system had much in it that was admirable. The fact that the surgeon was free to devote his attention to professional work in the corps and to leave the organisation, equipment of transport, and the transport itself to other workers had much to recommend it, but it required great tact and judgment to attach medical men to the brigade and yet to give them no power or voice in the command or direction of their corps. Medical men were easily dealt with when it was a question of giving their services, and so long as the surgeons of the brigade through the tact and discretion of the chief surgeon were considered and treated by the authorities with the courtesy which they believed to be their due so long would the present régime continue and there would be no necessity for taking the step which their brethren in the army were compelled to take;

and what was necessary for military might become by injudicious management at any moment necessary for civil ambulance organisation. He sincerely trusted that Mr. Osborn might long hold his present position of chief surgeon to the metropolitan corps. Mr. Osborn in his reply, after referring to the organisation of the corps, said that in the matter of work with improvised material there was still much to be desired. It was for this work that he had given a challenge shield in the hope of improvement and getting the men to show their ingenuity. They relied too much upon their book and muddled up the information they got out of it. At the close of the dinner it was decided that there should be an annual dinner of the honorary surgeons of the metropolitan corps.

**AN INTERESTING PRESENTATION.**—On Dec. 9th the board-room of the General Hospital, Birmingham, was the scene of a worthy tribute to one of the best friends the hospital has had since the time of the original founder, Dr. Ash. The chair was taken by Lord Howe, who, on behalf of some 208 subscribers, presented to Sir John Holder a portrait of himself, painted by the Hon. John Collier, and a replica of the same to Lady Holder. A silver casket, containing an illuminated address with the names of the subscribers, accompanied the presentation. The address expressed recognition of Sir John Holder's personal devotion to the best interests of the hospital in addition to the financial support so unceasingly and liberally given during the years occupied in the planning, building, and fitting up of the institution. Sir John Holder acknowledged in feeling terms the pleasure with which he received the presentation, and stated his high appreciation of the help that his colleagues on the board of management had always given to him during the past 11 years. Eleven years ago the idea of building a new hospital was originated by a gift of £25,000 from Miss Ryland; the scheme grew beyond expectation and has culminated in the beautiful and appropriate hospital as it now stands.

#### BOOKS, ETC., RECEIVED.

- BAILLIÈRE, J. B., ET FILS, 19, rue Hautefeuille, Paris.**  
Les Empoisonnements Criminels et Accidentels. By P. Brouardel, Professeur de Médecine Légale et Doyen de la Faculté de Médecine de l'Université de Paris. Price 9 fr.
- BREGMANN, J. F., Wiesbaden. (F. BAUERMEISTER, 49, Gordon-street, Glasgow.)**  
Knochenkrankungen im Röntgenbilde. By Dr. Alban Köhler, Assistenz-Arzt an der Chirurgischen Abteilung des St. Joseph-Hospitals zu Wiesbaden. Price M. 20.
- BERTHIER, O., 104, Boulevard Saint-Germain, Paris.**  
Études de Clinique Chirurgicale. By Dr. Antoine Pacheco Mendes, Professeur de Clinique Chirurgicale à la Faculté de Médecine de Bahia. Price not stated.
- CHAPMAN AND HALL, Limited, 11, Henrietta-street, Covent-garden, W.C.**  
The Human Figure in Motion: an Electro-photographic Investigation of Consecutive Phases of Muscular Actions. By Eadweard Muybridge. Price 20s. net.
- KARGER, S., Karlstrasse, 15, Berlin.**  
Jahrbuch für Kinderheilkunde und Physische Erziehung. Unter Redaction von O. Heubner, A. Steffen, Th. Escherich. 54., der dritten Folge 4. Band, 6. Heft. Ausgegeben am 4. Dezember, 1901. Preis des Jahrgangs (zwei Bände) M. 36.
- Jahresbericht über die Leistungen und Fortschritte auf dem Gebiete der Neurologie und Psychiatrie. Redigirt von Professor Dr. K. Mendel, in Berlin, und Privat-docent Dr. L. Jacobsohn, in Berlin. IV. Jahrgang. Bericht über das Jahr 1900. Price M. 32.
- Syphilis und Nervensystem. Siebenzehn Vorlesungen. By Dr. Max Nonne, Oberarzt am Allgemeinen Krankenhaus Hamburg-Eppendorf. Price M. 14.
- MACMILLAN AND CO., Limited, London and New York.**  
Hygiene for Students. By Edward F. Willoughby, M.D. Lond., Diploma in State Medicine of the London University and in Public Health of Cambridge University. Price 4s. 6d.
- On Disorders of Assimilation, Digestion, &c. By Sir Lauder Brunton, M.D., D.Sc., LL.D. Edin. and Aberd., F.R.S., F.R.C.P., &c. Price 10s. 6d. net.
- REBMAN, Limited, 129, Shaftesbury-avenue, W.C.**  
A System of Physiologic Therapeutics. Edited by Solomon Solis Cohen, A.M., M.D. Vol. iv.: Climatology, Health Resorts, Mineral Springs. By F. Parkes Weber, M.A., M.D., F.R.C.P. Lond., with the collaboration for America of Guy Hinsdale, A.M., M.D. In two books. Book II. Price 10s. 6d. net.
- SAMPSON LOW, MARSTON, AND CO., Limited, St. Dunstan's House, Fetter-lane, E.C.**  
The Guide to South Africa. For the Use of Tourists, Sportsmen, Invalids, and Settlers. Edited annually by A. Samler Brown and G. Gordon Brown for the Union Castle Mail Steamship Company, Limited. 1901-1902 edition. Price 2s. 6d.

**SAUNDERS, W. B., and Co., Philadelphia and London.**

- Human Physiology, prepared with Special Reference to Students of Medicine. By Joseph Howard Raymond, A.M., M.D., Professor of Physiology and Hygiene in the Long Island College Hospital, New York. Second edition, entirely re-written. Price 15s. net.
- A Manual of the Practice of Medicine. By George Roe Lockwood, M.D., Attending Physician to Bellevue Hospital, New York. Second edition, revised. Price 17s. net.
- A Text-book of Pharmacology and some Allied Sciences. By Torald Sollman, M.D., of Cleveland, Ohio. Price 16s. net.
- A Laboratory Handbook of Urine Analysis and Physiological Chemistry. By Charles G. L. Wolf, B.A., M.D., Instructor in Physiological Chemistry, Cornell University Medical College, New York. Price 5s. net.
- Atlas and Principles of Bacteriology and Text-book of Special Bacteriologic Diagnosis. By Professor Dr. K. B. Lehmann of Würzburg and R. O. Neumann, Dr. Phil. and Med. of Würzburg. Translation from the second German edition. Edited by George H. Weaver, M.D., of Chicago. Two volumes. Price 21s. net.
- Anatomy in its Relation to Art. An Exposition of the Bones and Muscles of the Human Body with especial Reference to their Influence upon its Actions and External Form. By George McClellan, M.D., Professor of Anatomy at the Pennsylvania Academy of the Fine Arts, &c. Price 42s. net.
- SOCIÉTÉ D'ÉDITIONS SCIENTIFIQUES, 4, Rue Antoine-Dubois, Paris.**  
Précis de Parasitologie Animale. By Dr. Maurice Neveu-Lemaire, Préparateur au Laboratoire de Parasitologie de la Faculté de Médecine de Paris. With Preface by Professor R. Blanchard, Membre de l'Académie de Médecine. Price 4 francs.
- VIGOT FRÈRES, 23, Place de l'Ecole de Médecine, Paris.**  
La Migraine et son Traitement. By Professor Paul Kovalevsky, M.D. Price 3 fr. 50.
- La Fièvre des Tuberculeux et son Traitement. By Dr. Pierre Seytre, Ancien Interne de l'Hôpital Saint-Joseph de Lyon, &c. Price 1 fr. 50.
- WILSON, EFFINGHAM, Royal Exchange, E.C.**  
Banking. Notes on the Origin and Development of Banking and Lessons to be Drawn from its History. By Arthur Dougall Cochrane. Price 2s. 6d.
- WRIGHT, JOHN AND CO., Bristol (SIMPKIN, MARSHALL, HAMILTON, KENT AND CO., Limited, London).**  
The Preservation of the Hair. By R. W. Leftwich, M.D., M.R.C.S., &c. Price 2s. net.

#### Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.

- ARMSTRONG, W. B., M.B., C.M. Glasg.,** has been appointed Certifying Surgeon under the Factory Acts for the Kirkintilloch District.
- BARFORD, A. M., M.D., L.R.C.P., M.R.C.S.,** has been appointed Anaesthetist to the Throat Hospital, Golden-square.
- BENNETT, WILLIAM B., M.R.C.S. Eng., L.R.C.P. Lond.,** has been appointed Honorary Surgeon to the St. George's Hospital for Diseases of the Skin, Liverpool.
- BERSFORD, EDWIN H., M.R.C.S., L.R.C.S. Lond.,** has been appointed Medical Superintendent of the New Metropolitan Asylum, Tooting Bec.
- BEVAN, ARTHUR, M.B. Lond.,** has been appointed House Physician to the Hospital for Sick Children, Great Ormond-street.
- CLAYTON, JOHN CECIL, L.R.C.P. Lond., M.R.C.S. Eng.,** has been appointed House Surgeon to the Bristol Eye Infirmary.
- COLLINS, E. TREACHER, F.R.C.S.,** has been appointed Visiting Ophthalmic Surgeon to the Metropolitan Asylums Board Ophthalmia Isolation Schools at Brentwood and Swanley.
- CUNNINGHAM, JOHN, M.B., C.M. Glasg.,** has been appointed Certifying Surgeon under the Factory Acts for the Stewarston District of Ayrshire.
- CUTHBERTSON, J. O., M.B., B.Ch. Oxon.,** has been appointed Senior House Surgeon, Radcliffe Infirmary, Oxford.
- DALY, JOSEPH P., M.D., M.Ch. R.U.I.,** has been appointed Certifying Surgeon under the Factory Acts for the Monasterevan District of the county of Kildare.
- DARLEY, A. R., M.D. Dub.,** has been appointed Medical Officer of Health for Daventry.
- GUNN, C. B., M.D. Edin.,** has been appointed Certifying Surgeon under the Factory Acts for the Peebles District.
- HARDENBERG, E. J. F., M.R.C.S. Eng., L.R.C.P. Lond.,** has been appointed Junior Resident Medical Officer to the North-west London Hospital.
- HUNTER, WILLIAM, M.B., C.M. Aberd.,** has been appointed Government Bacteriologist to the colony of Hong-Kong.
- MCGAVIN, LAWRIE, F.R.C.S.,** has been appointed Clinical Assistant in the Throat Department of Guy's Hospital.
- MEACHEN, G. NORMAN, M.B., B.S. Lond., M.R.C.P. Edin.,** has been appointed Honorary Physician to the St. Pancras and Northern Dispensary.
- MUSCHAMPE, R., L.R.C.P. Edin., L.R.C.S. Edin.,** has been appointed Medical Officer of Health for the Yeading Urban District Council.
- NYHAN, DENIS, L.R.C.P. Edin., L.R.C.S. Edin.,** has been appointed Certifying Surgeon under the Factory Acts for the Brynmawr District of Brecknockshire.
- PAKES, WALTER C. C., D.P.H. Cantab., F.C.S.,** has been appointed Analyst and Bacteriologist to the Transvaal Government.
- PERCIVAL, F., M.R.C.S., L.R.C.P. Lond.,** has been appointed Medical Superintendent of Prestwich Asylum.
- PERBOTT, CHARLES JOHN, L.R.C.P., L.R.C.S. Irel.,** has been re-appointed Medical Officer of Health for the Kingswood Urban District Council.

PRITCHETT, G. W. MORRIS, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Senior Resident Medical Officer to the North-west London Hospital.  
 SMARTT, WALTER, F.R.C.S., L.R.C.P. Irel., L.M., has been appointed Medical Officer and Public Vaccinator to the Tarporley District of the Tarvin Union.  
 WALLACE, STANLEY, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Officer of Health of the Town of Skegness, Lincs.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

**BIRMINGHAM GENERAL DISPENSARY.**—Resident Surgeon, unmarried. Salary £150 per annum, with rooms, fire, lights, and attendance.  
**CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, 41, Sloane-square, Chelsea, S.W.**—Honorary Surgeon.  
**DEVONSHIRE HOSPITAL, Buxton, Derbyshire.**—House Surgeon and Assistant House Surgeon. Salary, House Surgeon £100 per annum, Assistant £50 per annum, with apartments, board, and lodging.  
**EYE AND EAR INFIRMARY, Liverpool.**—House Surgeon. Salary £80, with residence and maintenance.  
**GLASGOW ROYAL INFIRMARY.**—Superintendent. Salary £500 per annum, with board, residence, &c.  
**GREAT NORTHERN CENTRAL HOSPITAL.**—Assistant House Surgeon for six months. Salary at the rate of £30 per annum, and board.  
**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.**—Resident House Physicians for six months. Honorarium of £25.  
**LIGHTBURN JOINT HOSPITAL FOR INFECTIOUS DISEASES, Shettleston, near Glasgow.**—Resident Physician. Salary £130 per annum, with board, &c.  
**LINCOLN COUNTY HOSPITAL.**—Junior House Surgeon for six months, eligible for re-election. Honorarium of £25 for each period of six months, and board, residence, and washing.  
**LIVERPOOL DISPENSARIES.**—Surgeon. Salary £200 per annum, with board and apartments.  
**MIDDLESEX HOSPITAL, W.**—Assistant Physician.  
**NEW HOSPITAL FOR WOMEN, Euston-road, N.W.**—Surgical Assistant, Senior Assistant, also Clinical Assistant (all females).  
**NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-upon-Trent.**—Assistant House Surgeon for six weeks. Salary 24 guineas per week, with board, apartments, and washing.  
**QUEEN'S JUBILEE HOSPITAL.**—Two Surgeons, two Physicians, and one Ophthalmic Surgeon.  
**ROCHDALE INFIRMARY.**—Resident Medical Officer, unmarried. Salary £100 per annum, with board, residence, and washing.  
**ROYAL COLLEGE OF PHYSICIANS.**—Milroy Lecturer, 1903.  
**ROYAL DEVON AND EXETER HOSPITAL, Exeter.**—Senior Assistant House Surgeon for six months. Salary at rate of £80 per annum, with board, lodging, and washing.  
**ROYAL HOSPITAL FOR SICK CHILDREN, Glasgow.**—Two Honorary Surgeons.  
**ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.**—Assistant House Surgeon required for six months. Remuneration at rate of £50 per annum, with board and residence.  
**ROYAL SURREY COUNTY HOSPITAL, Guildford.**—Resident House Surgeon. Salary £100. Also Assistant House Surgeon. Salary £75, both with board, residence, and laundry.  
**ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion-square, W.C.**—Honorary Clinical Assistant for three months.  
**SCHOOL BOARD FOR LONDON.**—Two Oculists for one year. Salary 100 guineas.  
**SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.**—House Surgeon. Salary £100, with board and residence.  
**STAINES UNION WORKHOUSE, Stanwell.**—Medical Officer. Salary £70 per annum.  
**SUSSEX COUNTY HOSPITAL.**—Physician, also Assistant Physician.  
**WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.**—Second House Surgeon, unmarried. Salary £80 a year, with board, residence, and laundry.  
**WORCESTER COUNTY AND CITY ASYLUM.**—Junior Assistant Medical Officer. Salary £120, rising to £150, with board, apartments, and washing.

The Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies under the Factory Acts as Certifying Surgeons at Tarporley, in the county of Cheshire; at Wick, in the county of Caithness; at Whitechurch, in the county of Hants; and at Earl Shilton, in the county of Leicester.

## Births, Marriages, and Deaths.

### BIRTHS.

**COLEMAN.**—On Dec. 3rd, at Beaufort House, Castle-street, Reading, the wife of Maurice W. Coleman, M.B. Lond., of a son.  
**SAVERY.**—On Dec. 2nd, at 4, Mount Park-road, Ealing, the wife of Frank Savery, M.R.C.S., L.R.C.P., of a daughter.  
**WILSON.**—On Dec. 3rd, at Elstree Cottage, Bushey Heath, Herts, the wife of Daniel Wilson, M.A., M.D. Queen's Coll., Cork, of a son.

### DEATH.

**HARVEY.**—On Dec. 1st, at Simla, Surgeon-General Robert Harvey, C.B., D.S.O., F.R.C.P., LL.D., Director-General of the Indian Medical Service, eldest son of the late Dr. Alexander Harvey, Regius Professor of Materia Medica in the University of Aberdeen.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## Notes, Short Comments, and Answers to Correspondents.

### PURE UREA IN THE TREATMENT OF TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—Dr. H. Harper's papers on the treatment of tuberculosis by the administration of urea (see THE LANCET of March 9th, p. 694, June 15th, p. 1672, and Dec. 7th, 1901, p. 1567) are particularly interesting, and more especially so from the fact that I believe a M.D. was about 30 years ago struck off the roll of the College of Physicians for recommending boia constrictor's urine (which is especially rich in urea) in cases of the same character. I cannot say that I believe much in the hereditary transmission of phthisis or in the milk-conveyance theory, since the inhalation of the dried tubercle-laden sputum accounts better than anything else both for the disease attacking one after another of the same family and also for the appearance of isolated cases. In the treatment of phthisis there is no question that what we have to do is to improve as much as possible the vital powers of the patient and to render him more capable of resisting the action of the bacillus. The use of urea should certainly have a wide and extended trial.

I am, Sirs, yours faithfully,

Bexhill-on-Sea, Dec. 9th, 1901.

F. P. ATKINSON.

### A NEW RENDERING.

WE extract the following reply to a correspondent from the *Echo* of Dec. 9th:—

(16) DOMESTIC MEDICINE BOOK.—I saw advertised in the *Chronicle* a book upon domestic medicine by Cassell and Co. I have pleasure in stating this in reply to "Family Man." I also suggest that "a man who is his own lawyer has a fool for his client," and that if for "lawyer" the word "doctor," and if for "client" the word "patient" be substituted, the proverb is equally correct, perhaps more so.

Quite so. And as we have often found fault with the replies to medical questions in lay journals it is only fair that when we totally agree with an answer we should publicly record the fact.

### "LOOKING BACK."

To the Editors of THE LANCET.

SIRS,—With reference to Jonah's residence in the whale's belly (see THE LANCET, Nov. 30th, p. 1519) the theory that he was very much alive during his sojourn in his host would be unhesitatingly affirmed by the unknown author of the "Prayer of Jonah while in the Belly of the Whale." This "prayer" used to be recited with great gusto by my old schoolmaster who learnt it when a lad in Scotland. I can only recall the first verse:—

"O Lord, how dismal is this place!  
 I've neither coal nor candle,  
 And nought I see but fish's tripe  
 And greasy guts do handle."

I am, Sirs, yours faithfully,

Harley-street, W., Dec. 4th, 1901.

WILLIAM RUSHTON.

### FRIENDLY SOCIETIES AND THEIR MEDICAL AID INSTITUTIONS.

To the Editors of THE LANCET.

SIRS,—My letter to you on the above subject in THE LANCET of Nov. 30th, p. 1554, was simply to demonstrate "the legal position" of an institution of this character as contrasted with "an insurance and medical aid friendly society" where canvassing, &c., is permitted. Mr. J. B. Pike characterises my letter as insolent. I have submitted it to several medical gentlemen who agree that it is courteous in its tenor and a marked contrast to the malignant spirit with which it has been answered. I happened to be on the committee deputed to meet the members of the General Medical Council. Before and after fully explaining our position we were treated with the greatest courtesy and kindness—just what we expected from members of the noblest and greatest of professions. I confess we are not faultless and in many instances medical men are inadequately rewarded for their services, but the spirit in which Mr. Pike discusses the subject will never tend to conciliate the clubs and their surgeons. Mr. Pike flies off at a tangent: he says that the institutions are not self-supporting, for in case of accident or severe operation they fall back on the hospital and its surgeons. To this I say emphatically they are self-supporting, and the reason why they seek the hospital aid occasionally is because they contribute largely in the aggregate towards its existence. Every employé at factories and warehouses in all our big provincial towns is compelled to contribute a small sum weekly. In Bradford, Leeds, Hull, Manchester, &c., no mean sum is contributed. In all the colliery districts the same rule exists. The employés are the thrifty workmen and workwomen who form 95 per cent. of the members of a friendly society's medical institution!

I am, Sirs, yours faithfully,

Dec. 9th, 1901.

C. W.

## FEES FOR INSURANCE EXAMINATIONS.

To the Editors of THE LANCET.

SIRS.—My experience with the Century Insurance Company, Edinburgh, may act as a warning to others. The company advertises itself as being specially suitable to the requirements of medical men. I was asked to examine a candidate for sickness insurance. The examination required was unusually rigorous, including physical examination, testing urine, chest measurements, &c. The report consisted of three sides of foolscap and about 60 questions had to be answered. A fee of 10s. 6d. was sent to me, and though I have protested I have been unable to get my usual fee of one guinea for insurance examinations.

I am, Sirs, yours faithfully,

Nov. 12th, 1901.

CYCLOPS.

## THE PREPARATION OF HUMANISED MILK.

To the Editors of THE LANCET.

SIRS.—Can any of your readers kindly tell me the different methods of preparing humanised milk and the different ways of sterilising milk, as well as refer me to reliable literature where these prepared milks are contrasted with raw cow's milk in the feeding of children?

I am, Sirs, yours faithfully,

Dec. 3rd, 1901.

GLASGOW.

## AN ADVERTISING PRACTITIONER.

IN THE LANCET of Jan. 19th, 1901, p. 224, we compared the wording of the circular which we print below with the methods of a certain quack so-called medical alliance. On that occasion we withheld the medical man's name, but stated that we should give him full publicity if his methods remained unaltered. We have now received another complaint from a correspondent who occasionally finds the circular in his letter-box.

"Consultation, with or without medicine, One Shilling;  
Medicine 6d.

Examination, with or without certificate, Half-a-crown for Clubs,  
Insurances or other Societies.

At home Nine to Eleven o'clock every morning, at Three  
o'clock every Afternoon; and Seven to Eight  
o'clock every evening.

Sundays after 6 o'clock. Forenoon by Appointment.  
Medicine and Attendance, Half-a-crown each week or part of a  
week.

No further charge for the remainder of the week. Seven days to  
the week, commencing at any time.

Vaccination, One Shilling; from Calf Lymph, Half-a-crown.

Teeth Extracted One Shilling each; Painless,  
Half-a-crown.

Teeth Stopped Half-a-crown each; and Artificial Teeth, One  
Guinea the Set.

Visiting Payments after Ten o'clock at Night, and before  
Eight o'clock in the Morning, according to time  
and distance.

Attendance includes Visits when patients are not able to attend at  
the Doctor's Surgery.

Midwifery, Accouchements, Confinements, Half-a-guinea, Fifteen  
Shillings, One Guinea and Two Guineas, according to agreement  
beforehand, when half the fee may be paid. The fee includes One  
week's after attendance and medicine.

Drugs, Medicines and Proprietary Articles at Cash Prices.

Diseases of Women and Children attended.

Apply—

DR. SARGENT,

Physician, Apothecary, Accoucheur, and Surgeon,

7, STATION ROAD, BRIXTON,  
LONDON, S.W.

Teeth Extracted at any hour guaranteed painless.

The above are only for Cash payments, paid in advance."

## A SUGGESTION FOR TREATMENT.

To the Editors of THE LANCET.

SIRS.—I have seen a similar case of bronchial asthma that is described by your correspondent, "M.B. Lond.," in THE LANCET of Nov. 30th, p. 1554, practically cured by giving the "glycérophosphate de soude," Robin, by subcutaneous injection—one dose per diem for a week or two. The preparation is to be obtained in London from Mr. Jozeau, chemist, 49, Haymarket, S.W.

I am, Sirs, yours faithfully,

Dec. 9th, 1901.

W. HARLE.

To the Editors of THE LANCET.

SIRS.—"M.B. Lond." in THE LANCET of Nov. 30th, p. 1554, might find one drachm of paraldehyde useful, with a second dose in about an hour of from 30 to 45 minims if necessary.

I am, Sirs, yours faithfully,

FREDERIC P. HEARDER.

West Riding Asylum, Wakefield, Dec. 10th, 1901.

## HÆMATURIA AFTER EATING LAYER.

To the Editors of THE LANCET.

SIRS.—Would any of your readers—Irish especially—kindly say if in their experience the eating of laver, or slöke, has been followed by hæmaturia? as an aged patient here has heard that this is so, particularly if it be eaten before frost. He had partaken of it for some days (as he had often done with impunity) and intense hæmaturia suddenly occurred with no local or general symptom and most obscure etiology.

I am, Sirs, yours faithfully,

Winchester, Dec. 10th, 1901.

W. M. HARMAN.

## THE CASE OF THE LATE MR. W. K. BROCK.

To the Editors of THE LANCET.

SIRS.—May I ask you very kindly to acknowledge the following sums received in answer to the appeal for the family of the late Mr. W. K. Brock:—Mr. Snook (Weymouth), £1; Anon. (Northampton), 10s.

I am, Sirs, yours faithfully,

Dec. 9th, 1901.

JONES, Hon. Sec.

## UNCLEANLY MILK.

MR. W. HOGGEN, of Child's Hill, writes to us to point out that, while dairy inspectors are very particular as to the condition of the dairies and the cowsheds, making every inquiry into the drainage, air capacity, and flooring of the latter, they do not take into consideration the state of the cow. He points out that, in his personal experience, too many cows are kept in a dirty condition so that in the act of milking a certain amount of dust and filth from their hides must fall into the pails. This, of course, is a condition of things that could easily be remedied by grooming the cow. Mr. Hoggen says that the life of the milking cow is much prolonged by steady attention to its personal cleanliness.

F.R.C.S.—King Edward's Hospital is a hospital for sick and wounded officers and its name was given by His Majesty's personal order. The hospital has been open for nearly two years, and upwards of 200 officers have received assistance there. It is situated in Grosvenor-crescent, and the patients, who are officers not well off, have their expenses paid by the ladies whose house it is. Amongst the medical men who have given their services gratuitously to the institution are Sir T. Smith, Sir R. Douglas Powell, Sir F. Treves, Sir W. Bennett, Mr. A. A. Bowlby, Mr. A. D. Fripp, Mr. G. H. Makins, Mr. Cheate, and others.

Enquirer.—The medical profession takes no general view upon the questions, while the correspondence that might be opened by the publication of "Enquirer's" letter is too voluminous to contemplate. The British Medical Temperance Association, the Church of England Temperance Society, and other temperance bodies will supply pamphlets, &c., upon application, giving various views upon the points. In 1888 the late Dr. George Harley communicated several papers to our columns upon "Moderate Drinking," which contain particulars that might be of interest to "Enquirer."

M.A., M.B., M.R.C.P.—The persons concerned in exploiting the so-called "cure" are, of course, quacks. No fear of outraging professional opinion will deter them from their practices of deluding the sick. It is so unlikely that any readers of THE LANCET will become their victims that we do not think it worth while to give space to exposing them. Possibly an amended Medical Act will enable the policeman to play a part in dealing with such persons.

Jeckry.—The Medical Defence Union might take up the case for one of its members. The General Medical Council cannot, of course, act upon private information; they must have evidence brought before them in a formal way and properly supported before they can prevent such abuses. The conduct described, if not actually "infamous in a professional respect," would certainly not be approved by the General Medical Council.

Scotie.—We do not consider such matters "all rot," as everything that tends to promote harmony among the medical men in a locality is of importance to the whole medical profession. B's wife need not be bound in the least, unless she or her husband so wishes, by B's professional relations with A.

A. N.—Medical opinion does not endorse to any extent the views of the author. Yet it is right that these views should be published, as all intelligent endeavours to solve a problem of the first importance to the human race ought, in our opinion, to be made known.

X. Y. Z.—Such circulars are very usually sent out. Care must be taken to send them only to persons whose names are actually upon the books of the vendor.

Fair Play.—The question is a purely legal one. In purchasing a practice conditions are usually imposed to prevent the situation described by our correspondent.

Bacchus.—The appointment is legal. It cannot matter whether the selected man applied for the post or was himself applied to.

B. T. U.—We do not consider in all the circumstances that the proposed fee of £2 2s. is too high.

A. O. should consult her medical adviser. We do not prescribe or suggest treatment.

Subscriber can describe himself as "L.R.C.P., L.R.C.S. Edin., Dentist."

Luz.—The information could be obtained at the British Museum.

J. G. P.—(1) No; (2) no; (3) yes; (4) no.

R. G.—Yes.

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 12th, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 a.m.
Dec. 6	30.20	S.W.	...	61	53	37	37	38	Foggy
" 7	29.98	S.W.	...	63	57	38	32	53	Cloudy
" 8	29.69	S.W.	0.06	56	55	49	51	52	Cloudy
" 9	29.55	S.W.	0.43	68	48	42	41	44	Cloudy
" 10	29.72	N.W.	0.15	64	44	36	35	37	Cloudy
" 11	29.61	WNW	...	51	44	36	35	37	Cloudy
" 12	29.44	S.E.	0.03	42	42	37	39	40	Raining

## Medical Diary for the ensuing Week.

## OPERATIONS.

## METROPOLITAN HOSPITALS.

**MONDAY (16th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynaecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopaedic (2 P.M.), City Orthopaedic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

**TUESDAY (17th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**WEDNESDAY (18th).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopaedic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

**THURSDAY (19th).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynaecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**FRIDAY (20th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopaedic (2.30 P.M.).

**SATURDAY (21st).**—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

## SOCIETIES.

**TUESDAY (17th).**—CHELSEA CLINICAL SOCIETY (Jenner Institute of Preventive Medicine, Chelsea-gardens, Grosvenor-road, S.W.).—8.30 P.M. Paper:—Mr. L. A. Bidwell: Cases of Erysipelas of the Gall-bladder.

**PATHOLOGICAL SOCIETY OF LONDON** (20, Hanover-square, W.).—Dr. C. S. Sherrington: On Cortical Localisation with Especial Reference to the Higher Apes.

**WEDNESDAY (18th).**—ROYAL MICROSCOPICAL SOCIETY (20, Hanover-square, W.).—7.30 P.M. Mr. F. W. W. Baker: Exhibition on Development and Structure of Eyes (illustrated by micro-slides).

**BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY** (20, Hanover-square, W.).—8.30 P.M. Adjourned General Meeting. 8.45 P.M. Ordinary Meeting. Paper:—Dr. Clippingdale: The Clay and Gravel Soils of London and the Relative Advantages of Dwelling on either.

**THURSDAY (19th).**—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Clinical Evening. Cases:—Mr. F. Jaffrey: (1) Trephining for Doubtful Cerebral Mischief; (2) Diffuse Craniotomies.—Dr. E. Cautley: Infantile Scoury simulating Acute Epiphysitis.—&c.

## LECTURES, ADDRESSES, DEMONSTRATIONS, &amp;c.

**MONDAY (16th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. M. Morris: Clinique. (Skn.)

**TUESDAY (17th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. C. T. Williams: Clinique. (Medical.)

**NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC** (Queen-square, Bloomsbury).—3.30 P.M. Mr. M. Gunn: Optic Neuritis.

**WEDNESDAY (18th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Mr. J. Berry: Clinique. (Surgical.)

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST** (Brompton).—4 P.M. Dr. Habershon: Symptoms and Physical Signs of Pulmonary Excavation.

**CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL** (Gray's Inn-road, W.C.).—8 P.M. Mr. C. Nourse: Diseased Conditions of the Naso-pharynx.

**THURSDAY (19th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Clinique. (Surgical.)

**THE HOSPITAL FOR SICK CHILDREN** (Gt. Ormond-street, W.C.).—4 P.M. Dr. Poynton: Cretinism and Allied Conditions.

**FRIDAY (20th).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. N. MacLehose: Clinique. (Eye.)

## EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed exclusively "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."

We cannot undertake to return MSS. not used.

## MANAGER'S NOTICES.

## TO SUBSCRIBERS.

Will Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newspapers (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid and not to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.	TO THE COLONIES AND ABROAD.
One Year ... .. £1 12 6	One Year ... .. £1 14 8
Six Months ... .. 0 18 3	Six Months ... .. 0 17 4
Three Months ... .. 0 8 2	Three Months ... .. 0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W.C.

During the week marked copies of the following newspapers have been received:—

Manchester City News, Southend Standard, Sunday Times, Public Health Engineer, Reading Mercury, Liverpool Mercury, Coleraine Herald, Macclesfield Times, Macclesfield Courier, Westmorland Gazette, Daily Despatch (Manchester), Kendal Mercury and Times, Dundee Advertiser, Bradford Observer, Yorkshire Post, Alliance News (Manchester), Vegetarian, Glasgow Herald, Manchester Guardian, Times of India, Pioneer Mail, Herald of Wales, Citizen, Spalding Press, Surrey Comet, Evesham Standard, Hertfordshire Mercury, Mining Journal, City Press, Local Government Chronicle Daily Express, Sanitary Record, Plumber and Decorator, Brighton Times, Railway Herald, Western Advertiser (Yeovil), Hastings and St. Leonards News, Surrey Advertiser, Local Government Journal, The Welshman, Middlesbrough Daily Gazette, Sussex Courier Derby Express, &c.

### Communications, Letters, &c., have been received from—

- A.**—Dr. F. P. Atkinson, Bexhill-on-Sea; A. N.; A. D. L. T.; Messrs. Armour and Co., Lond.; Dr. S. S. Ashmore-Noakes, Lond.; Mr. A. R. Anderson, Nottingham; Messrs. Allen and Hanburys, Lond.; Messrs. Ayrton and Saunders, Liverpool; Addressograph, Ltd., Lond.; Apollinaris Co., Lond.; Mr. Georg Anderson, Frankfurt a-M.
- B.**—Mr. C. Birchall, Liverpool; Berliner Ceresin Fabrik, Berlin; Dr. J. Braithwaite, Leeds; Dr. J. Burnet, Edinburgh; B. T. U.; Messrs. Bedford and Co., Lond.; Mr. W. Bernard, Londonderry; Mr. W. Buchanan, Chatham; Mr. F. E. Bennett, Margate; *Birmingham Daily Post*; Mr. F. Bagge, Lond.; Dr. Fletcher Beach, Lond.; Mr. R. S. Burd, Stratford-on-Avon; Mr. W. H. Brown, Leeds; Mr. W. E. Bennett, Alghurth; Dr. F. E. Beckwith, Newhaven, U.S.A.; Mr. C. L. Bedford, Birmingham; Messrs. Burroughs, Wellcome, and Co., Lond.; Messrs. Bates, Hendy and Co., Lond.; Messrs. Baillière, Tindall and Cox, Lond.; Mr. M. Bernstein, Biggaston; Dr. F. E. Batten, Lond.; Mr. H. Barclay, Lond.
- C.**—Dr. F. G. Clemow, Constantinople; *City Press*, Lond.; Cheyne Hospital for Sick and Incurable Children, Lond.; Messrs. T. Cook and Son, Lond.; Messrs. Cosenza and Co., Lond.; Cortland Wagon Co., Lond.; Messrs. Callard and Co., Lond.; Messrs. A. H. Cox and Co., Brighton; Clerical, Medical, and General Life Assurance Society; Mr. F. W. Collingwood, Lond.; *Canada Lancet*, Toronto, Editor of; Cyclops.
- D.**—Mr. A. Duke, Cheltenham; Dowsing Radiant Heat Co. (The), Lond.; Mr. B. Darke, Lond.; Messrs. Down Bros., Lond.; Mr. F. Davidson, Lond.; Mr. G. Dussell, Lond.; Mr. R. De Martin, Bexhill-on-Sea; Derby County Asylum, Mickleover, Clerk of; *Die Medicinische Woche*, Berlin; Mr. W. Durrant, Lond.; Mr. L. S. Dudgeon, Lond.; Dr. Davies-Kelman, Douglas.
- E.**—Mr. McAdam Eccles, Lond.; Professor Dr. S. Ehrmann, Wien; Enquirer; Dr. F. W. Edridge-Green, Hendon; Electrical Standardising, Testing, and Training Institution, Lond.; Messrs. Evans, Lescher, and Webb, Lond.; Mr. H. Bales, Birmingham.
- F.**—Mr. W. Adams Frost, Lond.; Messrs. Fairchild Bros. and Foster, Lond.; Messrs. Fassett and Johnson, Lond.; F. P. H., Wakefield.
- G.**—Mr. H. J. Glaisher, Lond.; J. George, Lond.; Messrs. R. W. Greeff and Co., Lond.; Glasgow
- Royal Infirmary, Secretary of; Dr. W. A. Gibb, Ipswich.
- H.**—Mr. E. C. Hadley, Dudley; Mr. S. Haigh, Wrexham; Mr. J. Heywood, Manchester; Messrs. S. Hess and Son, Lond.; Mr. G. Hermann, jun., Lond.; Dr. J. Holmes, Whitefield; Staff-Surgeon W. E. Home, Hull; Mr. S. J. Hutchinson, Lond.; Hotel Cambria, Aberystwith, Manager of; Mr. J. Hogg, Lond.; Mr. J. Smith Hill, Aspatia.
- I.**—Mr. R. F. Idenden, Dartford; International Fur Store, Lond.; Irish Medical Schools' and Graduates' Association, Secretaries of.
- J.**—Messrs. W. and A. K. Johnston, Edinburgh; Mr. T. R. Jessop, Leeds; Mr. M. H. Judge, Lond.
- K.**—Messrs. Kilner Bros., Lond.; King's College Students' Room, Lond.; Hon. Secretary of; Dr. Walter Kidd, Lond.
- L.**—Dr. A. H. N. Lewers, Lond.; Dr. J. Laurie, Greenock; Messrs. E. and S. Livingstone, Edinburgh; Lillard's Advertising Agency, New York, U.S.A.; Manager of; *Le Pharmacien*, Budapest, Editor of; London Schools Dinner Association, Hon. Secretary of; Dr. W. M. Lindsay, Lond.
- M.**—Mr. J. C. McWalter, Dublin; Herr A. Masek, Klatten, Bohemia; Matlock House Hydrophatic Co., Lond.; Secretary of; C. Midgley, Ltd., Manchester; Mr. B. G. A. Moynihan, Leeds; Dr. Alexander MacGregor, Lond.; Medical Guild, Manchester, Hon. Secretary of; *Medical Review*, Lond.; Manager of; M.B., Bath; Mr. C. A. Morris, Lond.; Mr. F. H. Moore, Sibsey; Mr. T. F. Manning, Lond.
- N.**—Dr. A. D. L. Napier, Adelaide, Australia; Nordrach-in-Wales, Conway, Secretary of; Mr. H. Needes, Lond.; Mr. J. C. Needes, Lond.
- O.**—Mr. C. A. P. Osburne, Cork.
- P.**—Mr. P. E. Potter, Lond.; Mr. Y. J. Pentland, Edinburgh; Mrs. M. A. Phillips, Cartigan; Mr. Hubert C. Phillips, Lond.; *Public Health*, Lond.; Editor of; Mr. R. H. Payne, Iowa, U.S.A.; P. R. C.; Mr. H. Parsons, Camberwell, Australia; Dr. L. Palramall, Kapurthala, India; Messrs. Peacock and Hadley, Lond.
- R.**—Dr. D. Roxburgh, Lond.; Messrs. Reynell and Son, Lond.; Royal Portsmouth Hospital, Southsea, Secretary of; Royal Devon and Exeter Hospital, Secretary of; Royal Victoria Hospital, Belfast; Mr. F. Rowse, Lond.; The Retreat, Fairford, Proprietor of; Messrs. Ridges and Sons, Wolverhampton; Mr. E. J. Reid, Lond.; Dr. J. Howson Ray, Manchester.
- S.**—Mr. P. Saunders, Croydon; Staines Union, Clerk of; Swad-

incote and District Medical Union, Secretary of; Mr. F. H. Simmons, Klip River Station, South Africa; Mr. Henry Sell, Lond.; Sussex County Hospital, Brighton, Secretary of; Messrs. G. Street and Co., Lond.; Messrs. Squire and Sons, Lond.; Messrs. Street and Co., Lond.; Messrs. W. B. Saunders and Co., Lond.; St. Anthony's Nursing Association, Lond.; Lady Superintendent of; South Devon and East Cornwall Hospital, Plymouth; Scholastic, Clerical, &c., Association, Lond.

**T.**—Dr. G. P. Taylor, Preston; Rev. H. G. Townend, Snareson; Dr. R. S. Thomas, Exmouth; Dr. Stuart Tidey, Florence; Dr. Tom Taylor, Cullingworth; Dr. James Taylor, Lond.; Dr. A. C. K. Turner, Fairford.

**U.**—Upper Montague-street (The), Lond.; University of London, The Principal of.

**V.**—Victoria Carriage Works, Lond.

**W.**—Mr. A. P. Walters, Sandown; Mr. T. Outerson Wood, Lond.; Dr. W. B. Warrington, Liverpool; Messrs. Wright, Layman, and Umney, Lond.; West Bromwich District Hospital, Secretary of; Messrs. J. Wright and Co., Bristol; Mr. A. W. Wigmore, Lond.; Professor Woodhead, Cambridge; Mr. W. L. Woollcombe, Plymouth; Messrs. Wright, Dain, Peyton, and Co., Birmingham; Messrs. Willing, Lond.; Dr. E. Waggett, Lond.; Dr. Martindale Ward, Lond.; Dr. Tucker Wise, Montreaux; Dr. C. Powell White, Leeds.

**Z.**—Messrs. A. and M. Zimmermann, Lond.; Zoeco, Ltd., Lond.

### Letters, each with enclosure, are also acknowledged from—

- A.**—Monsieur J. Astier, Asnières; A. M. W.; A. G. P.
- B.**—Dr. R. C. Bennett, Bognor; Mr. W. G. Burcombe, Lincoln; Staff-Surgeon G. W. Bassett-Smith, R.N., Haslar; B. G.; Mr. A. A. Bradburne, South Farnborough; Mr. J. H. Bray, Hastings.
- C.**—Mr. J. B. Cameron, Lond.; Mr. D. J. Carroll, Ballynattin; Messrs. A. Cohen and Co., Lond.; Messrs. Curry and Paxton, Lond.; Central London Throat and Ear Hospital, Lond.; Secretary of; Mr. A. W. Calman, Waltham Cross; C. E. S.; C. W. H.; Mr. J. W. Cotelingham, Lond.
- D.**—Messrs. J. S. Defries and Sons, Lond.; D. J. L.; Mr. R. E. Duke, Marseilles, France; Discount Motor Car Co., Lond.
- E.**—Mr. J. Evans, Wolverhampton; Mr. H. T. Evans, Blackwood; E. H.; E. M. W.
- G.**—Mr. T. Gray, Pontypridd; Messrs. Gilyart Bros., Bradford; Mr. T. George, Wolverhampton; Dr. J. Gillan, Ryhope; G. C. M.; Mr. W. V. Griffith, Coedpoeth; Mr. A. Gardner, Paisley; Dr. J. Galloway, Lond.; Mr. E. Gooch, Lond.; Dr. J. Gordon, Taunton.
- H.**—Dr. J. Hawkes, Shanklin; Mr. D. Heron, Ballynahinch; Mr. D. S. Henderson, Dunoon; Messrs. Harrison and Sons, Lond.; Mr. W. Hughes, Lond.; Mr. C. H. Haymon, Lond.; Dr. H.; Messrs. J. Haddon and Co., Lond.; H. N.
- I.**—International Plasmon, Lond.; Invernith Lodge Retreat, Dumfries.
- J.**—Mr. J. C. Jellet, Dublin; Mr. T. W. Joshi, Amraoti, India; J. T. C. C.; J. R. W.; J. R. L.; J. P. W.; J. C. D.; J. A. M.; Mr. G. James, Tenby; J. C. N.
- K.**—Dr. C. S. Kilner, Bury St. Edmunds; Dr. K.
- L.**—Dr. P. B. Le Franc, Langla, India; Liverpool Corporation, City Treasurer of; Lancaster County Lunatic Asylum, Clerk of; Mr. A. Lee, Fowey.
- M.**—Dr. W. Mackay, Wadhurst; Mr. G. K. McKenzie, Dunstable; Manchester Corporation, City Treasurer of; M. C.; Moorcote, Eversley, Medical Superintendent of; Messrs. Z. P. Maruya and Co., Tokio, Japan; M. K.; Manchester Medical Agency; Dr. F. Murchison, Isleworth; Mr. S. Mackey, Manchester; Mr. W. McGee, Dublin; M. H.; M. S. M. D.; M. M. W.; M. Blackheath.
- N.**—North Staffordshire Infirmary, Stoke-on-Trent, Secretary of; Nurses' Institute, Canterbury, Lady Superintendent of.
- P.**—Mr. A. W. Pierce, Liverpool; Messrs. Potter and Sacker, Lond.; Portable Building Co., Fleetwood; Mr. C. S. Price, Lond.; Dr. W. H. Parry, Llanrwst; Dr. P.
- R.**—Dr. C. Rundle, Dartford; Royal Alexandra Hospital for Sick Children, Brighton, Secretary of; R. A. M.
- S.**—Miss E. Sayer, Bournemouth; Mr. J. Sumpter, Lutterworth; Dr. D. J. Sherratt, Hallsham; St. Marylebone General Dispensary, Lond.; Mr. F. Savery, Baling; S. and C.; Mr. J. S. Sharman, Lond.; Messrs. A. F. Sharp and Co., Glasgow; Messrs. W. H. Smith and Son, Liverpool.
- T.**—Messrs. J. Turner and Co., Queensferry.
- U.**—University College, Sheffield, Registrar of.
- V.**—Mr. J. W. Vickers, Lond.; Surgeon A. H. Vizard, R.N., Plymouth; Vinolia Co., Lond.
- W.**—Dr. S. Whiteford, Newhall; Mr. J. Wood, St. Leonards-on-Sea; Mr. J. R. White, Ipswich; Dr. H. H. Weekes, Old Brompton; Messrs. H. Wilson and Son, Lond.; Miss Woodward, Lond.; Wigan Infirmary, Secretary of; Mr. W. Whittle, Walkden; W. V. R.; W. W. W.; W. S. C. D.; W. C. and S.

EVERY FRIDAY.

## THE LANCET.

PRICE SEVENPENCE.

### SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.	
One Year	£1 12 6
Six Months	0 16 3
Three Months	0 8 2

TO THE COLONIES AND ABROAD.	
One Year	£1 14 8
Six Months	0 17 4
Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice but is in itself an additional advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance. Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris

### ADVERTISING.

Books and Publications	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application.

Advertisements to be inserted on pages 2 and 4, which not only

# The Purvis Oration

ON

## THE PRACTICE OF MEDICINE AND ORIGINAL RESEARCH.

*Delivered before the West Kent Medico-Chirurgical Society on Dec. 6th, 1901,*

By JAMES F. GOODHART, M.D., LL.D. ABERD.,  
F.R.C.P. LOND.,  
CONSULTING PHYSICIAN TO GUY'S HOSPITAL.

GENTLEMEN,—The years since 1834, when he first qualified whose long and honourable career this annual address is intended to commemorate and emphasise, are crowded with events in the progress of medicine. But it is not that thought that will be the burden of my theme to-night; it is rather this, how happy must he be, how rich must he feel, to whom it is given to be able to look back upon the wealth of experience that 67 years at least in the practice of medicine must have brought. And the one pity in it that I can see at the present moment is that Prior Purvis cannot deliver his own oration and unload himself for our benefit of his stores of knowledge. Would, indeed, that it were possible. How gladly should we listen to the richness of his knowledge.

"But how shall letters and paper  
Imprison the breadth of Life?"

\* \* \* \* \*  
Nay, how should a volume hold it,  
Inscribed with a human pen?"

And as this cannot be—for experience is largely incorporated with oneself and cannot be imparted—we must imagine what the story of his life would tell; and one thing we may be sure that would be revealed, would be the truth of the thought, that the practice of medicine all along is an original research. It is on that account that I have chosen it as the subject of my address, and I am the more impressed with its appropriateness because it was but the other day that the President of the British Medical Association, no doubt with that modesty that so much becomes a great position, delivered practical medicine bound hand and foot and cast it into the chamber of death. "Pondering," he says, "over medicine as it stands to-day the main fact that strikes me is how much more it owes to the biologists and the men of pure science than to the so-called practical men. The practical man is indispensable, but he is not, like the great biologists, a high priest of the Arcana of Nature." I to-night, in a position of greater freedom and less responsibility, am inclined to see in indispensability no more than the privilege I share in common with, say, the undertaker. But for the man of medicine I will certainly claim no less than that he is on an equality with the great biologists; and that all of us may be, all of us ought to be, some are, let us hope, these high priests of the Arcana of Nature. I shall therefore contend to-night that we all may be, in our daily round of seeing and treating patients, in observing and combating disease, as truly scientific workers in advancing the progress of knowledge as those who are called the prosecutors of original research. "Scientific work" at the present day seems to me to be understood to apply only to research divorced altogether from the practice of medicine and carried on in the laboratory of the chemist and the physiologist. Now, while yielding to none in my desire to see "pure science," as it is called, and as I have defined it, better paid and therefore more generally practised than it is at present, I am not prepared to admit by silence that the man who spends laborious days and nights in his laboratory is the only really scientific worker or the only man who in the future is to be of any real use in the development of medical knowledge. On the contrary, I am prepared to maintain something nearly the very opposite of that—viz., that the practitioner is the man who very often plans the coach, and that the function of the worker in the laboratory is to drive in the bolts and to put on the varnish. In other words, those engaged in the practice of medicine have often been, possibly have always been, and certainly in the future may again be, the

No. 4086.

pioneers who by their observations suggest the lines that the workers in the laboratory take up and follow to their conclusion. They may not drive the nail home to an epoch-making discovery—for it is, indeed, one of the injustices of progress that only he who does so drive it home; who makes, as it is said, a discovery, acquires the credit—but they fill their niche in the world's economy and help discovery on.

No more use for the practical man? Is our use in the future to be no more than this—that we are to carry out the orders of the worker in the research laboratory? Surely the history of medicine points quite another moral. What about Bright and renal disease? It might well be wondered how far back in the century we still should be in relation to the malady that bears his name if Bright, the practical man, had not by his clinical observations and his observations in the post-mortem room pointed the clear way to future observation. Others may come after—the chemist, the physiologist, and so on—and point out further facts in the causation of the disease and differentiate from out of one now common group several varieties of distinct diseases, but Bright, the great clinical observer, showed them the way—he led them like Moses to Mount Pisgah, showed them the promised land, and said, Go forward and possess it. In the same way Wilks, who is really the father of all the careful work that has been done in England in the deadhouse, George Johnson, and other early pathologists, taught us more fully the distinctions between the various post-mortem changes. Others, for aught we know, may come after and drive home the further knowledge that this form of disease is due to a germ; perhaps that to some degenerative change; that to a pure inflammation, if there be such a thing. But the earlier observations have still pointed the way and set in process the thought and the line of investigation which eventuate in the final result. Then think of Jenner and Stewart—was there ever a better instance of a practical man than the late Sir William Jenner?—these two by their observations at the bedside and in the post-mortem room "discovered" the differences between typhus fever and typhoid fever, and it may well be maintained that they are the fathers of all that has been added to our knowledge since that day. And very interesting is it, to my mind, to think that typhus fever has practically disappeared from among us by the light of pure hygiene and common sense or ever the great biologists could get a finger in the pie. To find the germ of typhus fever now were but to find a missing link in the imperfect record of disease; unless, indeed, it be now only under the influence of the night. For of epidemics also is it true, "The night cometh in which no man can work."

It is much the same with malaria—a disease that has already disappeared from large tracts of country by the ordinary operation of hygienic laws. And it will be particularly interesting to watch what the bacteriologist will do now that his chance has come of attacking it from the inmost recesses of its origin. Take, again, the observations that have rendered the name of Addison imperishable in the annals of medicine. Addison was a great bedside teacher if ever there was one. He was a man of insight, of presence, and of speech, and by no means what one would now call a great biologist. He also, like Bright, captured a fortress far afield, from which even yet no great advances have been made although many patient workers are striving to open out new ground from his the original focus of discovery.

Another good illustration is to be found in vaccination, for who can doubt that for its usufruct one must count all the work that has been done of late upon the treatment of disease by animal extracts. The great biologists did not elaborate these out of their own heads. They had had the suggestion before them for years. Many a one must have seen the possibilities that this treatment of one of the specific fevers suggested in other directions, but the time was not yet ripe in other ways for what might seem dangerous experiments, and so the discovery, so far as it opened up lines of treatment other than that for the especial diseases, slumbered until Pasteur and Lister came along. Pasteur, by absorbing and regenerating the idea, opened it out and sent it along with all its possibilities in the treatment of microbic disease in general, and Lister helped largely to this end by showing how it could be carried out safely, and also with precision, which was necessary for the formation of reliable conclusions. From these two have come down in ever-increasing volume all the work that has been

B B

done in pure cultures, attenuation of virus, toxins, and anti-toxins, and so on, and although Pasteur was certainly one of the great biologists, Lister is the practical surgeon, and derived his chief inspiration, I imagine, from what he saw in the wards.

And at the risk of wearying you I would fain give one more illustration, and that shall be myxœdema. I take it that there is no disease that has given a greater stimulus to the treatment of disease in modern times than this, and what is its history? Sir William Gull first called attention to it as a retinal state in the adult woman, a description that is strictly accurate. Dr. W. M. Ord worked at its chemistry and gave it the name of "myxœdema." Kocher, a German surgeon, found that in the removal of thyroids for disease his patients became myxœdematous. Mr. Victor Horsley produced the disease experimentally in monkeys by the same practice; and the records of necropsies showed that in those who died from the disease the thyroid body was in a state of atrophy; and Dr. George Murray and Dr. Hector Mackenzie suggested the remedy of introducing thyroid substance into the tissues and the food. A great body of work, and of the most far-reaching effect in all sorts of directions other than those of the one special disease, worked out almost entirely by practising physicians and surgeons from clinical observation.

Now let these few examples serve to show that, at any rate in the past, the man of practice has been the pioneer, and assuredly what has been in the past will be again. The man at the bedside and the worker in the laboratory have each their special work to do. And to my mind the function of practice is to throw light on functional and common ailments, to track disease behind its many feints; to be keen to see in the kaleidoscope of symptoms the one disease that determines all; the distinctions that exist between superficial resemblances; the affinities that link up together things that, maybe, are apparently diverse; to be able to keep the mind constantly on the look out for the straws that tell the direction of the wind, and thus be able to suggest associations to the undiscerning, or lines of profitable research to those who are ready and capable of taking them up. But to do this is often to go far ahead of your facts—it is, indeed, to cultivate the imaginative side of your intellect, and that is to expose yourself, maybe, to the finger of scorn of the so-called scientist. But there is no need to set to work upon a purely imaginative basis; a quick and receptive mental attitude has often ere now got an insight of the future, has set further work going to prove or to refute, and so has acted, so to speak, as the spermatic element in the infant Discovery. Imagination is not necessarily unscientific—it may be science on the edge of a precipice if you like—but carefully handled it is an indispensable link in the chain of research, and it is the link, I think, that you and I are most concerned to use. Many a man can catch and add an idea to the general stock who has neither the time nor the special skill necessary to carry a problem to its conclusion. And at the bedside I doubt if one can be too inductive in the contemplation of disease, the forces of nature are so inextricably interwoven. The delight of our calling is surely not in being a mere prescriber of drugs but in keeping a plastic and sensitive mind alert to note how little details in what we may even judge to be but trivial diseases fit in with, and bear upon, the larger questions of the grouping and the treatment of disease in general; to watch how function is modified here or there, how this or that drug acts in this or that case or individual, how this vital resistance plays you false and that assists you in your endeavour to unravel the true relation between supposed cause and effect, so that in all we may obtain a better knowledge of disease and a better hold on it with each case ended. This is the attitude that constitutes the scientific mind and which renders the practice of medicine a pleasure even amid its constant sorrow and care. The unscientific mind thinks only in terms of cure—I cured this with A and that with B; I did this and I did that. Methinks the humility of the "*Deus volens*," once so common and now almost lost, breathed a more scientific spirit, for it recognised the intervention of unknown values that might interfere with the soundness of our conclusions. And, oh, these hidden quantities! How stimulating they are and how perplexing and inscrutable they are likely to remain. And it is in these so-called trivial diseases, the common objects of the medical shore, that our danger comes of sinking into that complacency—that is, unto death. And yet in each and all of them how much there is that we do not know; how much that if we did know would not only illuminate themselves but many other kindred states.

Let us look for a moment or two at one or two of them. Take the first that comes before me as I think over the subject of this address. A man comes into my room and he tells me that he is so "slack." If I examine him perfunctorily and finding no disease give him a tonic and send him on his way I do all that is expected of me, and so far as he is concerned I may or may not do him any good, but I shall certainly have done myself harm, because there has been no true intelligence in the process and at most I have performed a sort of mental chuck-farthing. If, on the other hand, the complaint wakes up a responsive interest in the listener, how then? The mind sparks out into glimpses of many possibilities, the embers of a common complaint become vivid with life, and slackness then represents to you, perhaps, the effect of a thunderstorm, perhaps a father or a mother with the megrims, or the gout, perhaps a great anxiety, perhaps a fortune ill-gotten in the sense of having been too early sought and won, perhaps a kiln in which the draught induces waste, perchance the dampers keep production low, perhaps some early heralding of grave disease. And then to pass from further possibilities you turn to your other great function of relief or cure. Then one soon learns how completely inefficient are tonics to effect our purpose. And then, again, the mind goes out in questionings as to the nature of nerve force and its method of production, and one wonders whether perhaps, some day, electrical and nervous energy will approach each other more closely; and one longs for a jar of that magnetic vitality which one mind now and then unquestionably seems capable of infusing into another—an influence, it seems to me, that has of late become appreciably more real and conceivable since wireless telegraphy has come within the compass of investigation and experiment.

Let me next take swooning as one of the functional states that is well worth a study and yet one in which our ideas are very elementary, not to say too often erroneous. The common notion is undoubtedly that when a man faints the heart has gone wrong—a cause and effect that are seldom indeed coexistent. Swooning is *cerebral* and not *cardiac* and, as all here well know, it is often epileptic. But this also is but a bald and imperfect statement, for the condition is one that is interesting in the extreme, both as regards origin, affinities, and prevention. For the purpose of this address I have examined my notes of all the cases of swooning that have come under my notice—say in the last 16 years. There are 156 of them. I am sure I am correct in saying that most of them came because they took swooning to mean heart weakness, but only 10 of them had any cardiac trouble of any kind, and even of these in only three or four, if so many, could the heart, though at fault, have had anything to do with the faints. The list shows conclusively the nervous origin of swoons. It is now the overworked and anxious stockbroker who swoons, the neurotic woman, the sufferer from tinnitus aurium, from gouty vertigo, the patient with Ménière's disease, the epileptic, and now and again a case turns up that is rich with suggestion as to the cause of swooning. Here is one. A man, aged 54 years (and that reminds me that I had thought that swooning was an affection of women, but it is not so; in my cases the males slightly preponderate), had been very healthy till lately, but had taken to being very giddy, and one day, walking, he was taken with "a dreadful attack"; he became quite collapsed, and it was with difficulty that they got him into a shop—for he could not move—and gave him some brandy, and after a time his son, who was fortunately with him, got him home. I could find absolutely no disease, but he had a remarkably livid nose and ears, and his fingers were prone to die. And I cannot help thinking that his brain goes blue like his nose and ears, for I have notes of several similar cases—girls who swoon with remarkably blue hands and who have chilblains in cold weather; for example, a girl, 21 years of age, whose feet are always so cold that she requires a hot bottle in her bed. She has suffered from chilblains and of late she had had three or four faints. Here is another note of a woman, 31 years of age, who swoons. She has no headache or drowsiness. She sometimes vomits after insomnia. She has a good deal of close brain work and cold extremities always. I found no disease, but a peculiar erythromelalgic or Raynaud-like condition of the hands. I know of others who swoon from a violent cough. Now couple this experience, which I say is by no means uncommon, with the following observation by a medical friend upon his own person. I had been writing to him about a doubtful case of epilepsy and he writes back: "It will be useful if I give you my own personal experience."

As an overgrown boy of 19 or 20 I went to skate one very cold winter's day, left home, walked half a mile through the cold, and stood in the station waiting-room before a warm fire. The next thing I was conscious of was finding myself lying on a bench feeling awfully ill. I was told that I had suddenly fallen to the floor and almost knocked down a burly man in my fall. I have often since then experienced a tendency to swoon on coming out of the cold into the warm. My idea was that the sudden relaxation of the cutaneous vessels, previously strung up by the cold, was the cause of this fainting, the supply to the brain being for the moment switched off. Once or twice on such occasions I have found my left thumb twitching, and have had to beat a hasty retreat and keep a sharp grip upon myself. For treatment, in others, I trust more to valerian and valerianates than to bromide."

This case seems to me to be an unusually suggestive one, for no doubt the phenomena do seem to correspond to an occurrence such as is here suggested, and when we remember that what might seem to be very parallel occurrences are met with outside the body—where, though even here but poorly, they can be studied or, at any rate, observed—such as Raynaud's disease, erythromelalgia, dead fingers, and so on—it seems not unreasonable to suppose that we have a common group of diseases of the peripheral circulation which in the future we may be able to control by drugs. I would lay stress on this because this group has a close relationship to epilepsy, whereby its importance is considerably enhanced. For surely the great desideratum in this dread disease is a something that shall in a moment give the sufferer a greater grip over himself or still the rising storm. To avert an occasional explosion we now benumb the activity of the cerebral centres for long periods together, which cannot but be a harmful and wasteful procedure.

Closely related to this is another condition that strikes me as one that the practical man can advance by careful clinical observation—it is vertigo. You are frequently called upon to prescribe for giddiness, and in books you find it described as a symptom that is sometimes due to ocular and sometimes to aural disturbances, which does not seem to help one much. Giddiness, like swooning, is always a cerebral phenomenon. Sometimes it is a mild malady that owns some passing cause probably of toxic origin. In old people it is said to be chiefly gouty, and then it is never of much importance, although it often distresses its subject for fear that it may indicate commencing brain disease, a threatening of a stroke, and so on, which it hardly ever does. Sometimes it is a grave affection, associated then with the severer forms of migraine, with deafness and tinnitus. In most of these the room suddenly goes round, the ground seems to rise rapidly, till it seems to strike one in the face, and then the person falls. So suddenly do some of these attacks come on and pass off that it is hard to say what has happened—whether, indeed, there has been a temporary swoon or not. Some of these cases are, no doubt, closely akin to epilepsy, but their real nature is sometimes very puzzling. Not so long ago a lady was brought to me for an attack of which the following is a *résumé*. She was well past middle age; she had had a tumour removed from her breast, which was thought to be cancerous but proved not to be so. She was suddenly seized in the middle of the night with intense pain in the region of her heart and all the use in her legs went. The attack was over so quickly that she had not time to call. She had another attack while waiting in the street. Suddenly, without any pain this time, her legs gave way, and she slid down on to the pavement. She described herself as panting, shaking all over, everything falling from her hand, but she did not lose consciousness. It was impossible to be sure what was the nature of these attacks, but, on the whole, I inclined to their being cerebral and not cardiac. She returned to see me some five weeks later, having had no more attacks, but she still had a constant pain in her heart though noise worried her, and her head was "all of a whirl." The heart was excitable, but no more. After a few more weeks she had an undoubted epileptic fit, and I now hear that there are signs of a cerebral tumour. So that you see in the subject of grave giddiness a wide range of diseases is involved—at one end migraine and then in linked series come Ménière's disease, epilepsy, and cerebral tumour to arouse the interest and to keep the mind alert. Even in the milder forms that occur in old people and are called "gouty" there is this of interest—that you can never be sure whether remedies will cure in any given case, for vertigo is rather prone to hang

about, to the worry of the sufferer and to the detriment of our reputation. It, like swooning, must, I think, be largely a matter of peripheral spasm; it also is a common object of the medical shore; the general practitioner is the one under whose ken it mostly comes; he has only to observe and to think about his many cases and he can hardly fail to add to our knowledge of the subject.

And having spoken of swooning and vertigo and taken the view of their nature that I have done, it is natural that I should pass on to other conditions of the peripheral circulation that you must see many of and therefore have some opinions about. And first in this regard let me say a word about the pulse. Think of all the pulses you have each of you felt; if each time you feel a pulse you do it with your full understanding, what an extensive experience is comprised within these four walls to-night and how much you must know about many moot conditions. But I have no doubt whatever that were this a discussion I could at once traverse one of the innate ideas of many by saying that I am no great believer in the *weak* pulse. I am often told by Mr. A or Mrs. B that he or she has such a very poor or weak pulse. And the implied suggestion that almost invariably is conveyed in that fact is that it is an indication of the impaired vigour of the heart that is behind it. And it seems reasonable enough. But think about it; and is it so? I will not say that he who sets store by a weak pulse and treats his patient upon the deductions that spring therefrom is altogether wrong; but I will say this, that for one case where a weak pulse is an indication of disease there will be a hundred in which it is no indication at all, and I think that I am more often right in saying, when anyone comes to me, and tells me that his medical attendant says he had such a weak pulse, "A very good thing for you! a weak pulse is an earnest of longevity, and you will not die from apoplexy"—save only that you must be sure about the weakness, for a weak pulse is sometimes a strong pulse—that is, a high tension pulse—but because it is a small pulse it is mistaken for a feeble pulse. Now I have thought over this matter over and over again, making the preliminary admission that I must be wrong in my opinion, for a weak or feeble pulse must be a valid indication of the condition of the heart. And yet the more I think of it the less can I see in the smallness of volume of a pulse any reliable indication of the vitality or nutrition of the heart. It is so sometimes, no doubt, but for my own guidance this sometimes has been chiefly in cases of acute illness, such as fevers, where in the course of the daily watching you have found the pulse alter and become soft or small and unsteady, an alteration that probably takes count of several details and not of the mere matter of feebleness.

When I look back upon all my experience of weak and feeble pulses, if I except the case of the very old and the dying where the extreme compressibility makes even observation difficult and goes with what is obviously extreme exhaustion—a condition that is certainly not so very uncommon—there is only one case that stands out in my memory as a pulse where I was sure that its weakness betokened a danger that was not otherwise discernible. And that case is instructive, for the patient was not yet old. He was sitting up in bed and in no distress. He was able to talk to us in a natural voice and with clear and vigorous intellect. His medical attendant had seen him in two or three attacks of sudden syncope when on merely moving out of bed he had gone grey and pulseless and appeared to be dying and I had seen him after one of these attacks when his pulse was so soft as to be hardly discernible and it was obviously sometimes better and sometimes worse within the few seconds of the examination. There was nothing very special about the heart—I do not think that there was any murmur—but we were convinced from his attacks and from the state of the pulse that there must be some very serious structural change in the muscular wall of the heart and we prognosticated accordingly. And so it fell out that there were three of us at the next day's consultation, and being interested in this question of weak pulses I endeavoured to extract from our senior what value he attached to this pulse from which I had drawn so grave a verdict, and I distinctly recollect being disappointed at his not taking much notice of it and drawing his conclusions (decidedly more favourable than we had come to) entirely from the state of the heart. I am sure of this, that if ever there was a pulse denoting a desperate state of the heart this was that case, and the patient died within 24 hours in

another of his attacks; and yet here was one of us paying little heed to the pulse, which clearly means that weakness for him had very little meaning. I hope, therefore, that no one listening to me to-night tells his patients that they have a weak pulse and a poor circulation, leaving them to imagine that their pump is wearing out—a conclusion that seems very reasonable and in 999 times out of 1000 very wrong. Thus I doubt if I should ever order a patient stimulants on the mere strength of a feeble pulse. I should need to take stock of many other points besides the mere one isolated symptom. Perhaps one would except certain pyrexial states, for in these one may suppose that one approximates nearest of any to dealing with the muscular power of the heart direct, for the pyretic state is liable to paralyse the subsidiary forces of the circulation and thus the peripheral current may become a reliable gauge of the condition of the heart. But possibly some may think that as I take so little stock of the feeble pulse as an indication of the state of the heart I must apply the same reasoning also to the strong pulse, and equally ignore the value of that. But I do not do anything of the kind, for I suppose that the peripheral control of the circulation as regards diminution is a much more direct one than its power of propulsion and, moreover, a strong heart may possibly overcome or modify the forces of the peripheral circulation, and so what I deny to the feeble pulse I allow to the strong pulse, for I think that it is a very valuable indication of the work that the heart is doing. And yet, as if to bear out my present contention that the pump and the conduits are in a large measure independent of each other, I have occasionally come across cases—I wonder whether anyone here has noticed the same fact—where the pulse has been a full hard pulse suggesting a labouring large heart, and when one turned to that organ one has found, as far as one could gauge it, that it was a poorly-acting and possibly feeble organ. Such cases are by no means common and they are not easy to explain, but I suppose that they are due to some capillary obstruction which, while inappreciable to the onlooker, is sufficient to overfill the vessels behind and perhaps to hamper the central organ. It is also possible that the heart, while giving no signs of enlargement or of labour, is yet involved in the one and the other, for it cannot be too often insisted upon at the present day that it is sometimes impossible to say if the heart be enlarged and that feeble sounds are hardly of more value than a feeble pulse. Take also that very interesting matter of persistently slow and quick pulses—a fit subject truly for an active-minded man. How little we know about them except the appalling fact that no remedies that are at hand will, for certain, make a quick heart go slow or a slow heart go quick. What a confession of incompetence, but it is the fact, digitalis and a few other drugs notwithstanding. Nay, what is more, we deliberately turn away from what little we might know and talk and act in that contradiction to it. No fact, for example, is more certain than that the most common cause of a tachycardia is cerebral excitement, no fact is more certain than that a common cause of bradycardia is cerebral disease, and yet we talk of either as a disease of the heart, and attempt to control it by remedies that act upon the heart. Bradycardia may perhaps sometimes be dependent upon a dilated and diseased muscle, but I expect it is far more often due to some local disease or toxin in the bulb which we as yet know nothing about.

Passing from these to murmurs produced in the cardiac area, let me speak not so much about special murmurs as about the observation of murmurs. No class of cases is more common in general practice, and if we only sit ourselves down with a level head to observe these unnatural sounds you that have the chance of more or less continuous observation of cases over a long range of time may find it possible to add much to our knowledge. First, as regards their disappearance: it is generally and reasonably held that certain murmurs, the hæmic, for example, disappear: but there are plenty of these innocent or non-valvular murmurs shall we call them? that do not go, for all our treatment, and yet the patient is much the better in general health and maybe seems quite well. Next, as regards position, we are accustomed to think in terms of four valves with a very occasional interpolation of a congenital exception, and outside this our thoughts hardly ever roam. But if you observe for yourselves, without any undue subservieney to the opinions of those who have taught you, you must come to the conclusion that murmurs are by no means uncommon where the characteristic souffle is exactly like the murmurs that

you are accustomed to think are caused by valvular disease of the common kinds and yet which you cannot quite fit in with any of them. It seems to me to be difficult to escape the conclusion that exocardial murmurs may simulate endocardial ones very closely and that they are much more common than most of us are inclined to admit. One other point I am inclined to insist upon is the variability of murmurs. I am not now alluding to the case where, the patient being seriously ill with heart disease, a murmur is sometimes present and sometimes absent—you all know of these cases and are accustomed to draw certain inferences therefrom as to the condition of the heart muscle.—I am alluding to a commoner and less noted variability where the murmur changes or disappears in the course of one examination and in response to some ordinary change of the position of body. Of the first class there is the common case of the nervous man or woman under examination where the heart is beating very rapidly and a loud murmur is heard with the first sound more or less in the position of the impulse. You listen on and the heart quiets down and the murmur quite disappears, to reappear, however, if anything again disturbs the heart in the course of the examination. The other group is where examining the patient standing you hear only the natural sounds of the heart; you put him recumbent on the sofa and the heart becomes cantering in its action with a more or less loud systolic murmur about the region of the impulse. Sometimes it is the other way about, but much less often so, where nothing is heard in the recumbent position and a murmur over the impulse when the patient is sitting or standing. Now I gather that there are those who think that a bruit heard under what may be called these partial conditions is nevertheless likely to mean some weakness of the muscle, and therefore to be, at any rate for the time, a real disease of the heart. I, on the contrary, should contend that murmurs that alter much in character, or come and go in accord with a change of the position of the body, are seldom of any importance. For my own part, I think that many of them must be produced outside the heart and in the lung adjacent to the impulse, and I think so because there is another very common systolic murmur that is often heard in women and in anyone who is not of the robustest type of physical development, which cannot, I think, be anything else from the characteristics that it shows. It is a systolic murmur like the others, and it is heard at the impulse and round into the axilla and even into the back sometimes. But its peculiarity is this, that it is heard in puffs only, two or three together, each puff quite distinct from the others, nearly always either at the end of inspiration or of expiration, and at other times the sounds are absolutely healthy. It certainly has no significance as regards the heart.

There are yet one or two other common conditions that may not inaptly be mentioned here in connexion with the group of circulatory disorders from which I have drawn my illustrations to-night. One of these is what I can only call puffiness. I am sure that it is a condition you are all familiar with, it is such a very common complaint. I dare say some might think that it is a symptom met with in hysterical women, but I think that opinion would be derived from the mood of complacency that I have already alluded to. I consider puffiness to be a real condition, although I am quite ready to admit—indeed, this is to me its real feature of distinction—that it is very difficult to substantiate this by our rough tests of pitting. I remember some years ago a woman who came to me several times complaining of this puffiness, and I could never make out that there was any real oedema. It was chiefly round about her eyes, but before very long it grew worse, and then there was no doubt that the case was one of myxœdema and it developed into a well-marked case. Naturally I have never forgotten that mistake, and whenever I hear of a woman complaining of puffiness, myxœdema is my first thought. But it is by no means always an indication of that disease. It is sometimes an indication of anæmia, and sometimes it is a curious state that is impossible to explain. Take the last case that I have in my remembrance. A woman who has lived a healthy life, and who has been healthy, slowly begins to lose her energy and to feel tired, and to get, as she expresses it, “so puffy” and so fat. Her eyelids are particularly noticeable, but it is not alone these, for her hands and feet feel stiff and uncomfortable. I examined her several times and I could not detect anything certain, but I *did* think that her complexion was a little pink and yellow, and that perhaps the lower

lids were a *little* puffy. I thought from her appearance that perhaps there might be some myxœdematous state behind it, and therefore put her on thyroid tabloids, but I cannot say with any striking result, although she expressed herself as better. I examined her urine, and found that it contained a little albumin—a mere trace. She got a little better but by no means well, so she was sent to a water cure, and there she lost all her feelings of fatigue, regained her walking powers, the albumin disappeared from her urine, and she came back quite well. So she continued for many months—till the other day, in fact—when back she came again on account of the same symptom, that she was again becoming puffy, “all over the body” as she expressed it. And again I failed to find anything that I could recognise as œdema, but again there is a return of a trace of albumin in the urine. And I have no doubt that her sensations are a true intelligence to her, that I cannot approach in delicacy. But what is this puffiness that she detects with such precision? I am inclined to think that it is some lymphatic or capillary difficulty, and that, owing to some fault in her juices, the parenchymatous processes of supply and absorption do not go on quite so readily as in health; and that this difficulty is recognised by the patient as a certain stiffness of the tissues. You have all, I doubt not, seen similar cases, for they are not by any means uncommon; and for myself I think that they are of considerable interest and well worth an attempt to unravel them when they occur. I once saw a little infant who suddenly became œdematous all over the body. There being no albumin in the urine, I turned to the diet to see if in that I could find any cause, and then I was told that for some reason or other, I forget now what, the child had been cut off all its milk and had been fed upon extraordinary quantities of broth.

And, mind you, it is out of the habit of closely observing common things that new diseases come. A new disease is always old, for even if, as I myself believe must be the case, diseases alter as their environment, this can only be a gradual process; new maladies do not jump into existence, and long ere they are discovered they have lain neglected or unrecognised before our faces. Cases of osteitis deformans, that curious enlargement with softening and curvature of the bones, identified now and for all time with Sir James Paget's name, were lying in our museums and records years before he signalled them, and out of Paget's description has, I doubt not, come a further interest in the bones and a fuller description, almost amounting to a like new discovery of acromegaly. Infantile scurvy, now associated with Sir Thomas Barlow's name, is to be found as an isolated case described by Sir Thomas Smith as “hæmorrhagic periostitis” at a much earlier date. Actinomycosis of to-day is surely the same disease described long ago by Dr. Vandyke Carter as “Madura foot.” And who can doubt that when the time is ripe the same careful observation along the wayside of medicine will separate out other new diseases as that in the past has done? It is hardly wise to forecast the future in this respect, but it does not require much prescience to foretell that the field of pyrexial disorders is as yet by no means worked out, and for that reason I am glad to read of “the fourth disease” because it shows that a careful observer has his eye along this line and is attempting to re-open a but half-worked mine.

I do not think that we are enough alive to this search for new diseases. A good many of us are inclined to say “Fudge!” if such a thing is suggested, but the idea at any rate is a most energising one. I saw but the other day what was to me a new disease. It was in a large school in which both measles and influenza were rife and many children were down with each. In the course of these three boys at least, developed a markedly hectic fever with a deep coppery efflorescence of the skin which soon passed on into a condition of dermatitis not inaptly described as “crackling.” But in addition to this there took place a sudden development of a fine capillary bronchitis that rendered the patients quite cyanotic and killed two children, one in less than 12 hours and the second in a somewhat longer time. In the third case recovery took place. I suppose it would be enough for most people to say in general terms that these children all suffered from an acute septic poisoning, and there let the matter rest, but I think that the cases become much more interesting if we let our minds roam over the supposition, not unlikely to be true, that we had here a new disease, and possibly a hybrid between influenza and measles. There is, at any rate, this much to be said in favour of this

hypothesis, that there are few diseases that could be named that, if they could be made to breed together, would be likely to produce a more uncanny offspring, for both are of the worst possible febrile type. All *old* diseases, too, become of a sort new in their personal form, by reason of the individuality that they then put on, and I think that epidemics have many a curious and instructive tale to tell, if only we could read, of this production of sports and thus new diseases. But I suppose that, like sports, they most often show their inveterate tendency to reversion, and thus we are not heavily burdened with fresh ailments.

One other condition also will I mention, because it has, to my mind, the making of a new disease within it, and this is what has generally been introduced to me as “phlebitis,” but I am by no means sure that all the cases which I have seen and which have been supposed to be of this nature are rightly included under one heading. The commonest form of the disease, and perhaps that to which there is the least exception to be taken, is where a man or a woman is suddenly taken with intense pain in one calf, some swelling that perhaps quickly subsides, and the complaint is said to be an attack of “gouty phlebitis.” A case of this kind, taken as it stands, I should hardly be prepared to question, and very likely the name correctly conveys the nature of the malady, but such cases by no means always end up thus simply. It has several times happened in my experience that after being laid up for four or five weeks with a leg of this sort—the length of time being determined by the fear of the medical man that if the leg be allowed to droop or move a plug will be dislodged and pulmonary embolism result—suddenly there comes a similar attack in the other calf, and then another six weeks is required; and I have known the process to be repeated in other parts of the body and limb, and a period of months to be occupied in keeping the patient out of danger of embolism. In one of these cases the so-called vein process was accompanied by pain and swelling in some of the joints, and after being ill for many months the patient ultimately plumped out in her cellular tissues in such a way that she was supposed to have myxœdema. She was accordingly treated with thyroid extract but without much, if any, result, and when a committee of us sat upon her not long afterwards the body of opinion was against her having myxœdema, and I think no one was bold enough to give the disease a name. Another case I well remember, that also began in the calf of the leg, as I have described these others to do, and then other attacks followed in one and the other leg, but what was most remarkable was: that spread about, I think, both legs, but chiefly the right, in the course of the long saphena veins, there were large, hard, red, intensely painful, bubo-looking masses that I felt sure would require to be opened. I suggested that a surgeon should be called in for that purpose, but after giving a dreadful lot of pain for several weeks they all took their departure by natural effort. At the onset of this case I fell in with the routine diagnosis of phlebitis, but the subsequent course of events convinced me that it was of a different character and that it was in reality a lymphangitis. I am, indeed, now inclined to doubt whether there be such a disease as multiple phlebitis, and to think that we have a disease of the lymphatics that has not as yet received any adequate attention.

And then there comes the great question of the treatment of disease. It also falls well into line with all that I have said as regards cultivating a habit of minute observation, but I should make this one qualification—viz., that whereas I have contended that in suggesting to oneself possibilities as regards the causes and affinities of the processes of disease one can hardly be too imaginative, I should like to insist that one cannot be too reticent in the advocacy of remedies; it is hardly possible to be too critical in our judgment of an apparently favourable result. But with this damper on special enthusiasms how alive with interest becomes the most vulgar subject. Contrast the two systems of the treatment of disease—the scientific, shall we call it? and the penny-in-the-slot system in any common ailment—let us say constipation. By the one we set ourselves to determine as near as may be the cause of the malady, and that takes us over the man's whole life, his work, his exercise, his recreation, his nervous energy, his food, his very temperament and being, and one rises from the study a physician of larger mind and a more finished competency to treat disease. On the penny-in-the-slot plan we may hit out a success, but we do not reach the low level from which I started, for we are not

even indispensable, for the patent-pill man might have done as well or better.

Such, then, are some of the many subjects that might be selected to exemplify the constant need that there is of a never-relaxing scrutiny of the common aspects of practice. And in parting with my subject let me say that although practical medicine is essentially scientific both as regards its means and aims it is possible, alas, to degrade it to a trade. Not often this in the present day, when all men are so well educated and for the most part keen in their work. But we take it up with an obligation, and that is to prove all things as far as may be possible, and then to record our thoughts by means of such societies as this. I know that after a day of toil from very weariness of the flesh it is difficult indeed to put pen to paper, or even to have any thought at all, but I believe the main difficulty to be other than this—viz., that so many are unduly critical of the amount of their knowledge. Remember, then, what you are. Assert yourselves, and take your proper precedence by virtue of your right, as being men engaged all day long in contact with active disease. Speak up, and be assured that what you have to say is well worth listening to: there is far too prevalent a tendency to silence the individual judgment in face of the last new dictum of science, and thus it is that many a poor gem passes muster for lack of the polish that criticism would give, and which the mature experience of the practical man is so well able to afford.

### MODERN METHODS OF VACCINATION AND THEIR SCIENTIFIC BASIS.<sup>1</sup>

By S. MONCKTON COPEMAN, M.A., M.D. CANTAB.,  
F.R.C.P.,

LECTURER ON PUBLIC HEALTH, WESTMINSTER HOSPITAL.

I DESIRE in the first place to express my appreciation of the compliment you have paid me in asking me to open a discussion on modern methods of vaccination. The subject is one which cannot fail to be of special interest at the present moment, seeing that for the first time for a considerable number of years London is experiencing an epidemic of small-pox which, although thus far of insignificant extent relative to the total population, may not improbably, with the advent of winter, assume grave proportions unless energetic measures for its suppression are adopted. I desire to include under the title that has been chosen for the subject of discussion all methods that have tended to increase the amount and to improve the value and efficiency of vaccination, especially as carried out under official auspices at the present day—to include, therefore, all methods, experimental, legal, and administrative, which have been, and are being, employed with the objects that I have mentioned. But in order the better to appreciate the precise value of such modern methods it is necessary in the first instance to digress a little in order briefly to review, under these various headings, the history of vaccination from a period antecedent to the time when the operation first gained official recognition in this country.

As is, of course, well known, the introduction of vaccination dates from the publication in 1798 of Dr. Edward Jenner's historic pamphlet, the original draft of which had shortly before been rejected by the Royal Society. It is doubtless true that Dr. Jenner had been to some small extent anticipated by Jesty and others in the employment of the virus of cow-pox as a prophylactic against small-pox, but he it was who first realised the possibility of carrying on the disease through a series of human beings, by transferring the contents of the vaccine vesicles from arm to arm, and who by his strenuous advocacy of the methods introduced by himself first brought the matter prominently before the public. Early in the following year (1799) an extensive series of public vaccinations were initiated in London, mainly as the result of which Dr. Jenner was enabled to state in 1801 that "upwards of 6000 persons had been inoculated with the virus of cow-pox, and that the far greater part of them had since been inoculated with that of small-pox and exposed to its infection in every rational way that could be devised,

but without effect." For this rapid extension of the practice of vaccination Dr. Jenner was not a little indebted to the activity and enthusiasm of Dr. Pearson of St. George's Hospital and Dr. Woodville of the Small-pox Hospital, who, when Dr. Jenner's stock of original lymph had come to an end and opportunity for replenishing it did not immediately offer, were enabled, as the result of their discoveries of outbreaks of cow-pox in various parts of London, to start independent series of vaccinations. In 1802 Dr. Jenner's discovery was brought to the notice of the Legislature, with the result that a committee of the House of Commons, after examining a number of witnesses eminent in the profession, issued a report entirely corroborative of Dr. Jenner's statements. In 1806, again, in consequence of an address to the King voted by the House of Commons, the Royal College of Physicians of London were instructed to inquire into the matter. Concerning the outcome of this inquiry, which extended over some nine months, it is stated in the Appendix to the Report of the Select Committee on Vaccination of 1871 that "the College of Physicians feel it their duty strongly to recommend the practice of vaccination. They have been led to this conclusion by no preconceived opinion but by the most unbiased judgment, formed from an irresistible weight of evidence that has been laid before them." Sir John Simon has placed it on record that in consequence of this report, which was presented to the House of Commons in July, 1807, "the public mind was apparently quite satisfied on the subject, and from this period begins to date the almost universal vaccination of children of the educated classes in this country."

In 1809 the so-called National Vaccine Establishment was founded, of which Dr. Jenner was first appointed Director, although he shortly after resigned the post. From this period onwards, in spite of a certain amount of opposition, the practice of vaccination became gradually more popular. But notwithstanding the fact that the value of the operation received ample recognition from Parliament, by whom its discoverer was substantially rewarded, it was not until the year 1840, in which the first Vaccination Act was passed, that the subject was dealt with by legislative enactment. By this Act, which was to some extent amended in the following year, every inhabitant of England and Wales was afforded the opportunity of obtaining vaccination at the public cost, although the question as to whether any person availed himself of its advantages or not was left entirely to his own option. Another important provision of this Act was that the operation of small-pox inoculation, which prior to the introduction of vaccination had obtained a considerable hold on the populace, was now prohibited, the transference of small-pox virus from one person to another being made a penal offence.

Not until 13 years later, in 1853, did vaccination become compulsory. The Act passed in this year made provision for the establishment of stations in each of the districts into which guardians and overseers were required to divide their unions and parishes in order to afford increased facilities for vaccination of the poorer classes. At these stations medical officers were to attend to perform the operation, and again for inspection of the result, and parents or others having charge of children failing to cause them to be vaccinated, or subsequently to vaccination omitting to have them taken for inspection, rendered themselves liable to a penalty. Certain further enactments, to which specific reference is unnecessary, came into force in 1852 and 1861. Six years later, in consequence of certain difficulties having arisen, more particularly in regard to the enforcement of penalties, a Bill to consolidate and amend the law relating to vaccination was brought before the House of Commons. This, after reference to select committees of both Houses, was passed and received the Royal assent on August 12th, 1867. Hardly, however, had it become law before strenuous opposition to its provisions was raised, Parliament being eventually petitioned to repeal it. Under these circumstances a Select Committee to which reference has already been made was appointed in the session of 1871 to inquire into the operation of the Act. As the result of careful consideration of the evidence brought before them the committee reported that in view of the great, though probably not absolute, protection afforded by vaccination against attacks of small-pox, together with the almost absolute protection against death from that disease, it was the duty of the State to endeavour to secure the careful vaccination of the whole community. They were further of opinion, however, that multiple penalties should not be imposed in the case of the

<sup>1</sup> A paper read before the Royal Medical and Chirurgical Society on Dec. 10th, 1901.

same child. These suggestions were embodied in a Bill which passed the House of Commons, and after amendment in the Upper House, involving some disagreement between the two legislative assemblies, became law in 1871. By this Act the Local Government Board was substituted for the Poor-law Board and the Lords of Her Majesty's Privy Council in the administration of the Vaccination Acts, and the powers of the Board were extended. Under the provisions of this Act and a further Act of 1874 the Local Government Board in October of the latter year issued an Order regulating the appointment, tenure of office, duties, and remuneration of vaccination officers and also the institution and conduct of proceedings by them. In February, 1887, an Order dealing with the duties of public vaccinators was issued by the Board, and in February of the following year (1888) yet another Order altered the age-limits at which revaccinations could be performed at the public expense.

Meanwhile, however, opposition to vaccination had been steadily increasing, and the administration of the Vaccination Acts became more and more difficult. Thus, although in the year 1872, the first year for which complete returns were made after the passing of the Act of 1871, the number of children in England and Wales whose vaccination was not finally accounted for amounted to but 5.1 per cent. of the total number of births, and the same percentage was unaccounted for in 1883, subsequent to this date the percentage of cases not fully accounted for mounted gradually higher and higher. It was under these circumstances that Mr. Ritchie, the then President of the Local Government Board, came to the conclusion that further investigation of the whole subject from every possible point of view was desirable, and accordingly, in May, 1899, a Royal Commission was appointed, consisting of 15 members, under the presidency of the late Lord Herschell. The terms of reference were as follows: to inquire and report as to (1) the effect of vaccination in reducing the prevalence of, and mortality from, small-pox; (2) what means, other than vaccination, can be used for diminishing the prevalence of small-pox and how far such means could be relied on in place of vaccination; (3) the objections made to vaccination on the ground of injurious effects alleged to result therefrom, and the nature and extent of any injurious effects which do, in fact, so result; (4) whether any, and if so what, means should be adopted for preventing or lessening the ill-effects, if any, resulting from vaccination, and whether, and if so by what means, vaccination with animal vaccine should be further facilitated as a part of public vaccination; and (5) whether any alterations should be made in the arrangements and proceedings for securing the performance of vaccination, and in particular in the provisions of the Vaccination Acts with respect to prosecutions for non-compliance with the law. After sittings extending over a period of six years the Royal Commission published their final report in August, 1896. Once again the value of vaccination as a protection from small-pox was re-affirmed, the actual amount of such protection being declared to depend on the efficiency and thoroughness of the operation and its repetition after an interval of from seven to 10 years. Injury following on the operation was declared to have been insignificant in the past, and under better precautions which should be adopted in the future was likely to disappear completely. Certain suggestions also were put forward as to the best means of popularising vaccination and as to alterations in regard to the infliction of penalties on defaulters and the affording of a loophole to the "conscientious objector."

Before the Royal Commission I had the honour of giving evidence, mainly in reference to the outcome of research work which I had been carrying on for several years previously. This work had dealt with methods of testing the potency of various kinds of lymph, whether of human or bovine origin, and its relative protective powers against the virus of small-pox, and more particularly with the question of the purification and preservation of vaccine lymph derived from the calf. Years before, the occurrence of certain fatal cases of erysipelas following on vaccination in the practice of the then public vaccinator at Norwich, concerning the origin of which an official inquiry was held at the time, had, boy though I then was, made a great impression on me. When commencing work on the subject of vaccination the remembrance of this unfortunate event caused me to turn my attention to the possibility of avoiding the accidental transference of erysipelas and other diseases from one child to another, in the operation of vaccination, by the substitution of some preparation of animal lymph for the arm-to-arm

method of vaccination with human lymph which, prior to the passing of the Vaccination Act of 1898, was the only method officially recognised outside the metropolis. On making inquiry into the matter I found that there prevailed very commonly an idea that the use of crude calf lymph was undesirable, for the reason that it "took" more strongly than human lymph, that, in other words, more reaction and more generally "bad" arms were believed to be likely to result in persons vaccinated with lymph of bovine origin. In the course of a lengthy series of bacteriological inoculations of different culture media, from various samples of vaccine lymph, carried out originally in the hope of isolating the specific contagium of vaccinia I found that my culture tubes were apt to show abundant growth of micro-organisms which proved to be in no sense peculiar to vaccine lymph, consisting in part, indeed, of forms apparently identical with certain microbes commonly associated with suppurative processes. Moreover, a further point was noted that in plate cultures inoculated from specimens of fresh calf lymph the number of individual colonies which resulted was almost invariably much greater than in similar plate cultures, the nutrient medium of which had been inoculated with an equal quantity of fresh human lymph. And it appeared to me not improbable that this fact might have relation to the observed tendency of calf lymph to "take" strongly to which I have already referred, and might be due in turn to the greater difficulty in keeping clean the skin of the calf as compared with that of a child. The further fact was also noted that when vaccine lymph of either bovine or human origin was stored for any length of time in capillary glass tubes, the opacity which usually resulted after a longer or shorter period (an occurrence usually associated with deterioration of the efficiency of the lymph for purposes of vaccination) was caused, in large part at any rate, by an enormous multiplication of extraneous micro-organisms, which found in the serum of which the liquid portion of the lymph consisted a favourable medium for their continued growth and multiplication.

With the object of obtaining, if possible, inhibition of these extraneous micro-organisms without injuriously affecting the specific contagium of vaccinia, and thus providing myself with material of more hopeful nature for the purposes of my research, I carried out, some 12 years ago, a series of experiments which were first demonstrated to the International Congress of Hygiene in 1891 and subsequently to the Royal Commission. The results have since been set out fully in the Milroy Lectures for 1898. To these experiments, therefore, it is unnecessary for me on the present occasion to refer in detail. Suffice it to say that eventually the desired result was obtained by submitting the epithelial pulp of the vaccine vesicle, after careful trituration, to the continued action of a sterilised 50 per cent. watery solution of chemically pure glycerine for about four weeks, such treatment having the effect of at first inhibiting, and ultimately destroying altogether, the numerous extraneous micro-organisms originally present in the lymph material. Later it became apparent that such an emulsion, if preserved and stored under favourable circumstances, of which a low temperature and protection from light are of special importance, was usually capable of retaining its efficiency as vaccine unimpaired for considerable periods. Still further investigations proved that not only was it possible to kill off all the bacteria ordinarily to be found in crude lymph material, but also the streptococcus of erysipelas and the bacillus of tubercle, even when for experimental purposes these micro-organisms had been added in relatively huge quantities to the lymph-pulp prior to glycerination. Thus was gradually elaborated the method of ensuring the bacteriological purification of vaccine lymph to which the Royal Commissioners make reference in their final report, and which as the result of further investigations carried out at their suggestion on behalf of the Government has now been officially adopted in this country for the purposes of public vaccination.

In order to make adequate provision for the manufacture of glycerinated lymph on a sufficiently large scale it became necessary to revise and largely augment the arrangements previously in force under the auspices of the Government. Thus the Animal Vaccine Establishment in Lamb's Conduit-street, which had been founded in 1881 under the direction of the late Sir George Buchanan and Dr. Cory mainly for the performance of vaccinations direct from calf to arm, was entirely renovated in order to comply with modern aseptic requirements and provision was made for the accommodation

of a largely increased number of calves. Also additional premises were leased from the British (now the Jenner) Institute of Preventive Medicine and what are now known as the Government Lymph Laboratories were founded. My late official chief, Sir Richard Thorne, and I had previously, at the instance of the Government, made a tour of inspection of the principal vaccine establishments on the continent, more especially those under Government control in Germany, where we found that the methods devised by myself had already been adopted. As the outcome of the practical experience thus acquired, supplemented by the results of a somewhat similar, although less extended, series of visits made by Dr. F. R. Blaxall subsequently to his appointment as bacteriologist to the Department, the laboratories were equipped as far as possible with everything in the way of apparatus and accessories that appeared likely to prove useful in commencing operations on a large scale. Exactly how large that scale was to prove, however, we hardly realised at the time, and very considerable augmentation of the modest staff with which the work was commenced and large expenditure for the installation of additional instruments have been found necessary, in order to ensure the enormous demand for lymph being met as promptly and efficiently as is now invariably the case.

The methods employed by the Government<sup>2</sup> in the production, preparation, and storage of vaccine lymph and the work performed by the staff may briefly be described as follows.

1. *Vaccination of the calf.*—Calves of suitable age (from three to six months), breed, and condition are placed in a quarantine stable for a week. Their health being ascertained to be satisfactory they are transferred to the Animal Vaccine Establishment. Each calf on admission is examined as to its general health, is weighed, and its temperature taken, a record as to these points being kept. When required for vaccinating purposes the calf is strapped to a large tilting table, and the lower part of the abdomen, extending as far forward as the umbilicus and backwards into the flanks, is carefully shaved. This shaven area is first washed with a 5 per cent. solution of carbolic acid or lysol, then well syringed with tap-water, and finally cleansed with sterilised water. The moisture from such washing is removed from this shaven area, and from the adjacent skin, by means of sterilised gauze sponges. By these means it is found that this area of skin can be freed from micro-organisms, as evidenced by absence of growth on surface agar-agar or gelatin culture media inoculated with scrapings. The calf is then vaccinated with glycerinated calf-lymph introduced into the skin in numerous parallel linear incisions by a sharp scalpel, previously sterilised, which is dipped from time to time in the vaccinating fluid. The incisions are designed to penetrate the epidermis and to open up the rete malpighii, if possible without drawing blood, and as they are made additional glycerinated lymph is run in along the whole length by the aid of a sterilised blunt instrument, such as an ivory or bone spatula. The inoculation of the incisions is effected immediately they are made, otherwise the lips of the wound are apt to swell and to close the opening. After vaccination the calf is removed from the table and is then so stalled in a stable as to prevent any injury to the vaccinated surface. The temperature of this stable is not allowed to fall below 60° F.

2. *Collection of the vaccine material.*—After five days (20 hours) the calf is again placed on the table and the vaccinated surface is thoroughly washed with soap and warm water, gently rubbed over by the clean hands of the operator. It is again washed with tap-water and finally cleansed with sterilised water. Next, any crusts that may have formed upon the vesicular lines and any epidermal debris are removed by the careful use of a sterilised india-rubber pad. Superfluous moisture is absorbed by sterilised gauze sponges. At this stage the site of each incision should present a line of continuous vesiculation. The skin having been put firmly on the stretch the vesicles and their contents are collected with a sterilised Volkmann's spoon, each line being treated in turn and scraped once only, care being taken that the edge of the spoon does not touch the neighbouring line of vesicles. In this way the vesicular pulp is removed without admixture of blood. The pulp obtained by the above procedure is received into a previously sterilised stoppered bottle of known weight. The abraded skin-surface of the

calf is gently washed with warm water and dusted over with starch powder or boric acid powder. The animal is then removed from the table and is weighed. Nearly all calves show a considerable gain in weight during their stay at the station and during the vaccination process. Each calf is then transferred to the slaughter-house attached to the Islington Cattle Market and is there slaughtered. A complete examination is made on behalf of the Board of the carcass and all the viscera by a veterinary surgeon especially appointed for the purpose. A report of this examination is received at the laboratories next morning. No lymph is used for any vaccination of the human subject until the animal in question is certified to have been healthy.

3. *Glycerination of the vaccine material.*—The bottle containing the lymph pulp from each calf is taken to the laboratories where the exact weight of the material is ascertained. The pulp is next transferred to a triturating machine, that employed being either one invented by Dr. Chalybäus of Dresden or a modified form of it. All the parts of the machine which come in contact with the lymph pulp are previously sterilised by prolonged steaming. The vaccine material, just as it is derived from the calf, is then passed through the machine, which is worked by an electric motor. When the pulp has been triturated in this way the amount of subdivision which it has undergone can be ascertained by suspending a loopful of the ground-up material in a watch-glass containing distilled water. If the trituration has been effectual such suspension should show only the minutest particles of pulp, causing the water to appear merely cloudy. The pulp is then passed through the machine a second time, together with six times its weight of a sterilised mixture of 50 per cent. of pure glycerine in distilled water. The resulting mixture is then once more passed through the machine, thus producing a fine and intimate emulsion. At this stage a loopful of the emulsion is withdrawn with a sterilised platinum needle and agar-agar plates are established in order to estimate both the number and the quality of the micro-organisms present in the lymph.

4. *Storage of the emulsion.*—The emulsion is next received into conical glass receptacles previously sterilised. By means of a stopcock at the apex of the cone the glycerinated lymph is run into small sterilised test-tubes capable of holding from four to 10 cubic centimetres. Each tube is filled as completely as possible, so that very little air remains in contact with the emulsion. It is plugged with a sterilised cork and sealed with melted paraffin which has been rendered aseptic with carbolic acid, and is then placed in a dark, cool cupboard or ice-chest. Week by week agar-agar plates are established from the emulsion with the result that the number of colonies is shown to diminish successively in the several plate cultures. At the end of a month the plates rarely show colonies of any sort.

5. *Use of the lymph at the Animal Vaccine Establishment prior to distribution.*—When the stage is reached at which agar plates show no growth after inoculation with the emulsion, samples of the lymph are drawn up into capillary tubes and despatched to the Animal Vaccine Establishment for the vaccination of children. The results of these vaccinations are recorded a week later, and from the number and size of the vesicles obtained an estimate is made as to the potency of the lymph.

6. *Transference of the glycerinated lymph to capillary tubes for distribution.*—When the lymph of a given calf has been shown to be satisfactory the bulk of it is transferred to sterilised capillary tubes by means of special tube-filling machines worked by water power. These tubes are next sealed in a small gas flame, every care being taken to prevent overheating of the lymph during the process. These sealed tubes are then stored in an ice-chest in boxes in such numbers that any quantity demanded up to some 6000 tubes per diem can be despatched at once to the National Vaccine Establishment at Whitehall, whence the lymph is distributed to public vaccinators.

7. *Recording the results of vaccinations by public vaccinators.*—Each public vaccinator receives in response to application made to the National Vaccine Establishment a consignment of lymph together with a schedule in which to record the results of its use, and these schedules, after having been examined at the National Vaccine Establishment, are sent to the laboratories. The schedules indicate the series number of the lymph, the date of its despatch from the National Vaccine Establishment, the name of the public vaccinator to whom it was supplied, the number of tubes sent, the dates when the several tubes were used, the

<sup>2</sup> Report of the Medical Officer to the Local Government Board, 1899.

number of persons vaccinated, the number of scarifications made, and the number of vesicles obtained. All these details are recorded at the laboratories, and from the last two items information as to the success which has resulted, both as regards individuals vaccinated and insertions of lymph made, is obtained and set forth, both in full and in the form of a percentage. In addition to these records a register is kept stating the particulars of the calves employed, the details of the lymph obtained from each calf, including the results of the bacteriological examinations, the results of the use of the lymph at the Animal Vaccine Establishment, and also the number of tubes of each series despatched to the National Vaccine Establishment.

During the first year of operations nearly 500,000 tubes of glycerinated lymph were sent out from the Government laboratories. Notwithstanding the difficulties that had naturally to be overcome in the inauguration of work of a character entirely new to practically all those engaged upon it, the success attending the use of the lymph at the hands of public vaccinators throughout the country was distinctly gratifying, the returns made by them to the National Vaccine Establishment showing that a case-success of 93 per cent. and an insertion-success of 83 per cent. had been attained. With a recent lymph series concerning which in the course of my work it became necessary to make special inquiry, and which had been distributed to 160 public vaccinators, the case-success and insertion-success were found to be 98 per cent. and 93 per cent. respectively. And at the present time it is by no means an unusual experience at the laboratories for returns showing complete case-success and insertion-success to be received.

Under the provisions of the Vaccination Act, 1898, which came into force in January, 1899, for a period of five years, and of the Vaccination Order (1898) of the Local Government Board, numerous changes in connexion with vaccination administration and with the performance of the operation were introduced in addition to the supersession of arm-to-arm vaccination by the use of glycerinated calf lymph. Thus whereas by the Vaccination Acts of 1867 and 1871 the parent or person having the custody of any child was required to procure its vaccination within three months of birth, this period by the Act of 1898 has been extended to six months. Again, no parent is now liable to a penalty under the compulsory clauses of the Vaccination Acts who affords proof that he has within four months of the birth of a child satisfied a stipendiary magistrate or two justices in petty sessions that he conscientiously believes that vaccination would be prejudicial to the health of the child. Moreover, in no case can proceedings now be taken more than twice against a defaulting parent—namely, once under Section 29 of the Act of 1867 and once under Section 31 of the same Act provided that the child had reached the age of four years. When first propounded the so-called "conscience clause" was received with a storm of opposition, more particularly on the part of the medical journals, but it is now, I think, generally admitted that the clause has justified its existence, since its operation has practically done away with "martyrdom" and so has weakened to no slight extent one of the principal weapons in the armoury of the anti-vaccinationists.

The operative procedure in public vaccinations was formerly based on the necessity of carrying on a weekly series of transferences of vaccine lymph from arm to arm, this method having been originally introduced as the best means then attainable of insuring the activity and comparative purity of the lymph. In large urban districts, therefore, vaccinations were performed week by week throughout the year, while in small towns and rural districts quarterly or half-yearly periods, each comprising several weeks, usually sufficed. In the latter cases material for starting the series was generally obtained by vaccinating one or more infants a week previously, and if fresh lymph for this purpose could not be obtained from a private case or through the good offices of a neighbouring practitioner a few doses of human or calf lymph stored in tubes or on points respectively were provided on application being made to the National Vaccine Establishment. Again, for the purposes of arm-to-arm vaccination the provision of stations, to which children were brought, first for the performance of the operation and again after a week's interval for inspection of the results, was an essential. The occasional hardships to the mothers and a somewhat remote possibility of danger to the children involved in being taken long journeys to a vaccination station in bad weather, or arising from the collecting together in one room of a number of children and adults, one or more of whom

might happen to be suffering at the time from some infectious disorder, are a few of the reasons which appeared to render a change in this regulation desirable; as a matter of fact, it would appear that nothing but good has arisen from the substitution of domiciliary for station vaccination, coupled, as it is, with the use of glycerinated calf lymph, "or such other lymph as may be issued by the Local Government Board." It may here be mentioned, however, since the fact appears to be comparatively unknown, that it is not essential for a public vaccinator to employ the lymph issued by the Government unless the parent or person in charge of the child exercises his right of insisting on its use. But the public vaccinator "must not employ lymph supplied by any person who does not keep an exact record of its source," and in any case he "must keep such record of the lymph he uses for vaccinating" as will enable him always to identify the origin of the lymph used in each operation. Further, the operator is enjoined never, when he has unsealed a tube of lymph, to attempt to keep any part of its contents for the purposes of vaccination on a future occasion. Moreover, he is required to use an artificial blower for the purpose of expelling the lymph instead of applying his mouth to the tube.

Two other sections of the "Instructions to Vaccinators under Contract" in the third schedule of the Vaccination Order of 1898 are of special importance. One of these refers to the aseptic precautions with which every stage of a vaccination should be carried out. "These should include (1) the cleansing of the surface of the skin before vaccination; (2) the use of sterilised instruments; and (3) the protection of the vaccinated surface against extraneous infection, both on the performance of the operation and on inspection of the results." The other section to which I would specially refer requires that whenever possible four separate, god-sized vesicles, or groups of vesicles, not less than half an inch from one another, must be produced, and that in any case the total area of vesiculation resulting from the vaccination should not be less than half a square inch. As regards the standard thus set up and insisted on in the case of those vaccinators whose work comes under periodical inspection at the hands of the Medical Inspectors of the Local Government Board, it may at once be admitted that there is no special magic in the particular number "four." But an area of half a square inch having been recognised in the report of the Royal Commission as probably the least extent of vesiculation absorption from which is capable of affording adequate protection to the individual against subsequent invasion by small-pox, the regulation requires that this area should be distributed over four insertions, mainly for the reason that experience has shown that less inflammatory reaction and less permanent destruction of skin tissue are likely to ensue than if the attempt be made to secure the same area by means of a less number of insertions of lymph.

This leads us to the consideration of what constitutes "efficient" vaccination. The answer may be summarised as follows: the clinical activity and bacteriological purity of the lymph employed for vaccination; the skilful performance of the operation itself; the making an adequate number of insertions of lymph over a sufficient area; the observance of precautions needful for ensuring strict asepsis, both at the time of vaccination and subsequently until the vaccination wounds are soundly healed,—all these are matters to be regarded as essential to "efficient vaccination." But, as has been well said by a writer in the *Edinburgh Review*, "even after efficient vaccination a slow progress away from safety and towards danger is inevitable and revaccination at least once after childhood is necessary if protection is to be maintained."

Much care has been exercised of late not only by the Government but also in many of the trade establishments, especially on the continent, in the preparation of the glycerinated calf lymph which in public and private work alike is now almost universally employed in this country. But this lymph, although under proper conditions usually capable of retaining its potency for many weeks or months, nevertheless under certain circumstances, at present imperfectly understood, is liable to become rapidly weakened and even eventually to become altogether inert. Possibly the condition of the calves from which the lymph is obtained, especially as regards their general health and the suppleness or the reverse of their skin, or exposure of the lymph to the action of light or to a high temperature are of special importance. Consequently in order to ensure the best results from its use it is not only

necessary that great care should be exercised in its manufacture, but it is also advisable that the lymph should be employed for vaccination as soon as possible after bacteriological examination has demonstrated its freedom from suppurative and other extraneous micro-organisms. We unfortunately at present possess no test of the efficiency of lymph other than the clinical one, and it is further of interest in this connexion that samples of lymph capable of affording fair results on the calf may fail to cause equal response when employed for vaccination of the human subject. It is therefore of importance that, as is invariably done in the case of the lymph issued from the Government laboratories, every batch should be tested on children before being distributed for general use.

As regards the carrying-out of the operation itself, it is somewhat unfortunate that there exists no official definition of what constitutes a "successful vaccination," and in consequence it is open to any practitioner to give a certificate of successful vaccination in cases where but one minute vesicle may have been produced. It is to be feared that such certificates are too frequently given, and it cannot be too strongly urged that vaccination of this sort involves incomplete protection. The standard laid down by the Local Government Board, to which reference has already been made, has for the most part proved easily attainable in practice, and it is much to be desired that in private as in public work the attainment of this standard should be aimed at in every instance. The suggestion has been made that in the form employed in certifying to the success of a vaccination the medical man performing the operation should be required to state the number of insertions of lymph made and the number of vesicles, or groups of vesicles, resulting therefrom. But it does not appear that the value of such a regulation would be very great in the absence of a further regulation requiring that all vaccinations, public and private alike, shall conform to a definite standard. The further suggestion has been made that every medical man should become a public vaccinator to the extent that he should have the right of claiming a fee from the public funds for every vaccination performed by him provided that he was willing that his work should be subject to inspection on behalf of the Government. But the originators of this idea can hardly have realised the magnitude of the inspectorial staff that would be required if such an arrangement were to be put in force.

The treatment of the arm at the time of vaccination and subsequently during the progress of the case is another subject which has aroused considerable controversy and concerning which much divergence of opinion would appear to exist. Thus in some quarters the initial cleansing of the arm is said to be objected to by the parents as a reflection on the care, or want of care, on their part as regards the condition of their children, but in general it is found that a little tactfulness in explaining the difference between ordinary and surgical cleanliness has sufficed to overcome the difficulty. In addition to this aspect of the case the friction employed in the process is of value in causing a slight capillary dilatation which undoubtedly contributes to the success of the operation. Water, soap-and-water, spirits of wine, or antiseptic solutions of greater or less potency containing boric or carbolic acids, lysol or perchloride of mercury, for instance, are employed by different operators for the purpose. Of these in all probability a warm solution of boric acid is the most generally useful, a stronger antiseptic such as corrosive sublimate, unless removed by the subsequent use of sterilised water or alcohol, being liable to exert a somewhat deleterious effect upon the lymph. The method to be employed at the operation and during the maturation of the vesicles for the protection of the vaccinated area from extraneous infection has not been defined by the regulations, for the reason that it appeared probable that each man would best attain the desired end by the same methods that he would ordinarily employ in the treatment of any other case of minor surgical injury. As was to be expected, therefore, the means adopted for the protection of the vaccination wounds have been very various and different trade firms have undoubtedly reaped an extensive harvest by the introduction and energetic advertisement of special dressings of one and another kind. In Paris, at the time of my official visit, a semi-transparent material known as "*taffetas Marinier*," not unlike thin isinglass plaster, and which adheres to the skin when moistened with water,

was, I found, invariably employed to protect the vaccinated area during the first few days following the operation, and a somewhat similar substance advertised by an English firm is, I believe, at present utilised to a considerable extent in this country. But during the second week of the process it is essential that some dressing of an absorbent nature should be employed, as it is during this period that oozing from the vesicles occasionally supervenes. The means employed for retaining the dressings in position are almost as numerous as the latter themselves. At the Government station in Lamb's Conduit-street a dressing composed of a couple of layers of boric lint, kept in place by means of pieces of rubber strapping which do not entirely encircle the arm, is applied at the time of vaccination and this is replaced by another exactly similar dressing when, a week later, the case returns for inspection of the result. But whatever be the nature of the dressing the free use beneath it of a dusting powder of boric acid has a most beneficial effect in preventing any undue amount of inflammatory reaction.

Concerning the nature of the instrument best adopted for the purpose of vaccination I desire to offer a few remarks. Here again each operator will probably attain the greatest measure of success with that instrument to the use of which he has been accustomed. But, speaking generally, the less complicated it is the better. Again, it is desirable that it should be formed entirely of steel so that it may be readily sterilised by boiling or by heating to redness in the flame of a spirit lamp, the first method being preferable as not tending to injure the temper of the metal. Possibly the best and certainly the simplest form of instrument is the ordinary triangular-headed surgical needle, which possesses the advantage that on account of its small cost a fresh one, if thought necessary, can be employed for every operation. It is curious to find, on turning to the old literature of small-pox inoculation, how all the processes of vaccination were originally copied from those which the inoculators had gradually elaborated. It was of course to these practitioners that Dr. Jenner was indebted for the model on which he framed his method of arm-to-arm vaccination, and in connexion with my choice of an instrument I was specially interested to find that Dr. Emanuel Timoni in a paper on the practice of inoculation among the Turks, presented to the Royal Society in 1716 by Dr. Woodward, makes the following statement: "These punctures ..... succeed best in the muscles of the arm. .... The needle is to be a three-edged surgeon's needle; it may likewise be performed with a lancet."

The manner of operating which affords the most generally successful results consists in blowing out the lymph from the capillary tube in which it is stored on to the surface of the skin at different points, the number and situation of which must correspond with those of the vesicles which it is desired to obtain. The skin, put slightly on the stretch, is then gently scarified, *through each droplet of lymph*, with the needle or other instrument, first in one direction and then in another, more or less at right angles to the first, the drawing of blood being avoided as far as possible. In this way the corium or superficial layer of the skin is thoroughly opened up and in some measure removed and thus the emulsion is brought into intimate relation with the cells of the true skin beneath. Operating in this fashion and employing lymph of normal potency, it is quite easy to obtain an area of vesiculation satisfying official requirements. Many operators, I find, reverse the procedure somewhat, first making their scarification and then rubbing on the lymph. But whether it be that some of the minute scratches are thus closed up as the lymph is applied, or whatever else the reason, certain it is that the results obtained are usually by no means comparable with those following on the method of scarification *through* the beads of lymph previously dropped upon the skin.

The operation having been completed, it is well to avoid too great haste in applying the protective dressing, especially if this be of the nature of an absorbent pad or if it be impregnated with some powerful germicide, as in the case of sal-alembroth wool. Some little time necessarily elapses before complete absorption of the vaccine emulsion and the exuded lymph has taken place, and to insure the best results a little exercise of patience is essential. With the object of hastening this period of drying I some time ago devised a method of removing the glycerine from the lymph emulsion after such time as bacteriological tests showed that it had fulfilled its purpose of destroying extraneous micro-organisms,

and replacing it with an equal amount of an inert fluid of similar specific gravity. But the more rapid drying of the vaccinated area thus obtained appeared hardly to compensate for the extra trouble involved in the special preparation of the lymph.

When every care has been taken to protect the arm during the progress of the vaccination and to prevent the premature detachment of the crusts the amount of permanent scarring of the skin which remains may be astonishingly slight. This is, I think, one of the results of modern methods of vaccination to which as yet attention has hardly been sufficiently directed, although in the future it is likely to prove a matter of considerable importance. There can be little doubt but that the huge and deep scars which not infrequently resulted from the vaccinations of former years were due to some extent to excessive destruction of skin tissue by micro-organisms other than that specific to vaccinia. If this be so, then it becomes apparent that persistence of such large and deep scars, practically throughout life, does not necessarily afford evidence that any equivalent degree of immunity against the infection of small-pox is enjoyed by their possessor. To this fact attention has been called in a recent communication to the *British Medical Journal*, although the writer propounds a somewhat different interpretation of the facts which he has observed.

The question naturally arises as to whether appreciable advantage to the community can be proved to have resulted from the adoption of our more modern methods of vaccination. It is for several reasons somewhat difficult to give as yet any very definite answer, although such statistics as are at present available are decidedly encouraging. There can be no doubt that the operation of the most recent Vaccination Act has been accompanied by a very considerable increase in the number of vaccinations performed, although it should be borne in mind that this increase is, in some degree at any rate, to be accounted for by the vaccination of cases previously in default, a source from which it is unlikely that the figures can be continuously augmented. None the less, however, it is matter for satisfaction that the vaccination of these outstanding cases should have been secured. From a return presented to the House of Commons on August 6th, 1900, which is the latest available source of information, we learn that in the year 1899, the first during which the Act of 1898 was in force, the number of certificates of successful primary vaccinations received showed an increase of 169,035, or no less than 33.8 per cent. over the figures for the previous year, the totals for the two years being 500,314 in 1898 and 669,349 in 1899, respectively.

But there is another source from which we may learn something as to the value of modern methods of vaccination. I refer to the annual reports of the Registrar-General under the heading, "Deaths attributed to Cow-pox and other Effects of Vaccination." For a series of years deaths thus registered averaged one every week for the whole of England and Wales, but whereas in 1889 and 1892 the actual number of deaths included under this heading was 58 and in 1893 it was 59, in 1900 the figures had sunk to 25. For England and Wales the statistics for the first three-quarters of the present year are not as yet available, but, thanks to the courtesy of Dr. J. F. W. Tatham, I am able to state that in London during that period only two deaths occurred in which vaccination was referred to in the certificate. In this connexion also it may be mentioned that at the last dinner of the Public Vaccinators' Association Dr. G. Danford Thomas was able to state that, contrary to his experience in former years, he had not had occasion in the course of his duties as coroner to hold an inquiry into a single case in which death was alleged to have been in any way due to vaccination since the date on which the Act of 1898 came into operation.

A couple of years hence the whole question of vaccination must again occupy the attention of the Legislature, by which time we may perhaps hope to have made further advance both in our methods and in the results obtained therefrom. For there is no finality in scientific work, and if in connexion with the subject under consideration much has already been accomplished in the past there are still undoubtedly many points awaiting elucidation in the future.

In conclusion, I desire briefly to call attention to a matter which has always aroused keen controversy and which just now must needs be of special interest—the question, namely, as to the relationship of vaccinia to small-pox. For, not unfrequently, the difficulty experienced by myself and many other investigators in attempts to transmit human small-pox

to bovines, whether cows or calves, has been cited as a reason for regarding with distrust the theory first expounded by Dr. Jenner, that cow-pox, whether carried through the horse as intermediary host or not, was originally derived from small-pox in the human being. But a great deal, at any rate, of the small-pox which was prevalent during the time that Dr. Jenner lived and wrote was of that comparatively mild variety which, under the name of "inoculated small-pox," was intentionally produced in healthy subjects, with the object of thereby conferring protection against subsequent attack by the disease in virulent form. So mild, indeed, at times were the results of inoculations in the hands of such operators as Adams and the brothers Sutton that no obvious effect was observed, with the exception of the local vesicle arising at the site of insertion of the small-pox virus, and the patients suffered but little inconvenience. Many of them doubtless, therefore, would be capable of following their ordinary avocations, which would hardly be possible in the case of persons contracting small-pox in the ordinary way, among whom the disease was apt to exhibit such virulence as to account for the death of perhaps 50 per cent. of those attacked.

Not only were the effects following on inoculation comparatively mild, but the disease in this form was intentionally brought into many country districts which otherwise might not have become invaded. In the light of these facts, it has for some years past been borne in upon my mind more and more convincingly that it was not improbably from the inoculated form of small-pox, rather than the ordinary variety, that much of the cow-pox in the pre-vaccination era was derived. It is not difficult to understand how that the cracks so often found on the udders of a cow might become infected by a milker with fingers contaminated by contact with the inoculated sore upon his arm.

I determined, therefore, if possible to put the matter to the test, and learning that in Nubia and in certain parts of India the inoculation of small-pox is still carried out, I made numerous endeavours to obtain the necessary material, but unfortunately, up to the present, without success.

In default of inoculated small-pox in the human subject I made trial of the monkey, which my previous work had shown to be readily susceptible to the disease, the various phases of which in this animal closely resemble those observed in man. The experiments were commenced in 1898 and the small-pox material has been obtained from cases coming under observation during outbreaks of this disease at Middlesbrough, Glasgow, and London. In each of three separate series of experiments the human small-pox lymph or pulp was first inoculated directly on calves and, in every instance, so far as could be observed, with altogether negative results. But with monkeys success was as invariably obtained, and when, after one or more passages through this animal, the contents of the local inoculation vesicles were employed for insertion on the calf, an effect was now produced which, after one or more removes in that animal, was indistinguishable from typical vaccinia. Moreover, from the contents of vesicles raised in this manner on the calf a considerable number of children have in turn been vaccinated, and afterwards kept under observation for about a couple of months. Every such vaccination "took" normally and in no case was any bad result subsequently observed by myself or by the parents of the children, no "generalisation" of the eruption occurring in any instance. (A series of photographs of monkeys, calves, and children was shown on the screen.)

The point of interest in these experiments is found in the fact that whereas the human small-pox material employed could not be got to "take" directly on the calf, nevertheless results typical of ordinary vaccination were obtained when the strain of lymph, after inoculation with it of a series of monkeys, was again transferred from the inoculation vesicles on this animal to the epidermis of the calf. Interesting corroboration of my results has recently come to my knowledge in which the use, on calves, of lymph from the vesicles of cases of human inoculated small-pox has afforded opportunity, in Burmah, of originating, on several different occasions, strains of excellent vaccine lymph.

Earl's Court-square, S.W.

**LUUACY IN DEVONSHIRE.**—At the meeting of the Exeter Corporation Asylum Committee held on Dec. 11th it was decided that draft plans for additional accommodation for 50 patients should be presented to the Commissioners in Lunacy for approval.

OBSERVATIONS ON THE ETIOLOGY AND MORBID ANATOMY OF TUBERCULOUS MENINGITIS.<sup>1</sup>

By EDMUND CAUTLEY, M.D. CANTAB., &C.,  
PHYSICIAN TO THE BELGRAVE HOSPITAL FOR CHILDREN; ASSISTANT  
PHYSICIAN TO THE METROPOLITAN HOSPITAL.

FOR the data of this paper I have taken the records of the last 27 cases of tuberculous meningitis which have been under my care during life and have been subsequently examined in the dead house (vide Table). Though the number is too small to justify dogmatic statements on any one point, the results obtained from the inquiry are sufficiently definite to enable me to bring before you certain deductions as to the etiology of the disease.

1. *The age distribution.*—The following table shows the age distribution:—

Age in years.	Males.	Females.	Total.
0 to 1 ... ..	0	3	3
1 „ 2 ... ..	5	1	6
2 „ 3 ... ..	2	3	5
3 „ 4 ... ..	1	3	4
4 „ 5 ... ..	2	2	4
5 „ 10 ... ..	4	1	5
—	14	13	27

No less than 22 out of the 27 cases occurred during the first five years of life and only five during the second five years. This result confirms those of other observers that the disease is most common under five years of age. Some writers state that it is rare during the first year and give statistics in support of their statements. Others find it frequent during the first year. It is not always clear, from the figures quoted, whether the statements are based on cases diagnosed during life or only on those which have been verified after death. If the figures are based on clinical records only it is probable that the frequency of the disease during the first year would be over-estimated, on account of the difficulty in invariably making an accurate diagnosis between the simple posterior basal meningitis, which is unduly prevalent during the first year of life, and true tuberculous meningitis. My own figures show that the distribution of the cases during these first five years is fairly equal for the different years. There is no preponderance of either sex—14 males to 13 females.

2. *The influence of heredity.*—In recent years it has become customary to ascribe very little importance to heredity in the production of tuberculous affections, except in so far as the sufferers are exposed to direct infection from association with a tuberculous relative, or may inherit a peculiarity of constitution which renders them susceptible to such infection. It is well known how difficult it is in hospital practice to obtain accurate family histories and that all statements as to the occurrence of “consumption” in the parents or other relatives must be viewed with suspicion. The results obtained on this point are opposed to the theory of heredity but must not be too strongly insisted upon. In 22 of the cases it was definitely stated in the notes that there was no history of phthisis in the parents or other children. Of the remaining five cases a few facts may be given. In only one case was the mother stated to be affected.

CASE 14.—The patient was a female, aged 6 months. The mother was said to be very ill with “consumption and bringing up blood.” The child was only nursed for one week and was then brought up on condensed milk. She had been taken out of doors very little. She died with symptoms of tuberculous meningitis, and there were found, in addition, tuberculous consolidation of the upper lobe of the left lung, a cavity in the upper lobe of the right lung, general dissemination throughout the lungs, and a few tubercles in

the spleen. No note was made as to the condition of the mediastinal or mesenteric glands.

No better instance could be given of probably direct infection from the mother through the respiratory tract. The next four cases also illustrate the possibility of direct infection from a parent.

CASE 2.—The patient was a female, three years and nine months old, who died after an illness of 19 days' duration. Tubercles were found in the meninges, liver, and spleen. No caseous glands were found. The cribriform plate of the ethmoid was carious. While the child was ill the father was an in-patient at the Brompton Hospital for Consumption.

The case suggests strongly that infection took place through the nose. To quote Osler: “In those instances in which no primary focus has been discovered it has been suggested that the bacilli reach the meninges through the cribriform plate of the ethmoid from the upper part of the nostrils, but this is not probable.” It is certainly not probable that the meninges can be infected by this route unless disease of the bone is first set up. The possibility of direct infection is present in the next case, which also presents another point of interest, to be subsequently discussed—namely, the influence of injury in the production of the attack.

CASE 1.—The patient was a female, aged two years and six months, who died after an illness of 17 days' duration. After death there were found basal meningitis, with only a few tubercles in the meninges, and no evidence of a tuberculous focus. A few pleural adhesions were present at the apex of the right lung. The child had a fall three weeks before the onset of the symptoms. The father was said to be “consumptive” and a sister was at the time in the Brompton Hospital for the same disease. It is a question whether the tubercles in the meninges were the primary cause or secondary to a basal meningitis set up by the fall.

The other two cases presented interesting features. In both the father was said to be “consumptive.”

CASE 19.—The patient was a male, aged two years, who died after an illness of 18 days' duration. A large cavity was found in the lower lobe of the left lung; there were general dissemination throughout the lungs and caseous mediastinal glands.

CASE 24.—The patient was a male, aged three years and seven months, who developed left hemiplegia during the course of the illness. An old tuberculous mass was found in the right external capsule and tuberculous nodules in the cerebellum. The lungs were stuffed with tubercles and the mediastinal glands were caseous. Only one tubercle was present in the spleen.

These five cases were the only ones in which a family history of tuberculous disease was obtained and they all illustrate the probability of direct infection.

3. *Injury as an etiological factor.*—In only one instance (Case 1), that already referred to, could injury be invoked as the exciting cause of the disease. Even in this case it is possible that the meninges had become infected before the injury, for the presence of pleuritic adhesions at the right apex suggests former tuberculous mischief. All text-books recognise the importance of this point. It is more specially applicable in the case of children who go to school. For some reason or other the child receives a box on the ear, or a rap on the head by the knuckles or ruler or other punitive instrument in the hands of the teacher. Subsequently the child dies from tuberculous meningitis which is ascribed by the parents to the injury. Possibly the unfortunate teacher is hauled before a coroner's court and severely censured by a typical British jury. The common and usually accepted explanation is that the child was punished for the stupidity or inattention, the state of mind so likely to be present during the early stages of the disease. It is therefore imperative in such cases that a careful post-mortem examination should be made in order to ascertain whether there is a tuberculous focus present which might have given rise to the meningeal infection. On the other hand, a case like the one quoted might be brought forward as an argument in favour of injury being the exciting cause. Injury to the brain or meninges might cause local congestion or damage of such a nature as to render the affected part a suitable soil for the growth of the tubercle bacillus, which without such advantageous conditions might have perished. This is the only instance out of the 27 cases which is favourable to this view.

4. *The channel of entrance of the bacillus into the system.*—In view of the recent discussions and observations on the

<sup>1</sup> A paper read before the Society for the Study of Disease in Children on Nov. 15th, 1901.

TABLE GIVING DETAILS OF NECROPSIES IN 27 CASES OF TUBERCULOUS MENINGITIS.

No.	Sex.	Age.	Pleura.	Lungs.	Glands.		Other lesions.
					Mediastinal.	Mesenteric.	
1	F.	2½ years.	A few adhesions at the right apex.	No tubercle.	Normal.	Normal.	A few tubercles at the base of the brain. No other evidence of tuberculosis.
2	F.	3½ years.	—	"	"	"	Tubercles at the base of the brain. Caries of the cribriform plate of the ethmoid.
3	M.	13 months.	—	"	Caseous.	"	—
4	F.	3½ years.	—	"	"	Caseous.	Peritoneal surface of the diaphragm covered with miliary tubercles.
5	M.	4½ years.	—	"	"	Normal.	—
6	M.	9 years.	Old adhesions of the left lower lobe.	"	"	"	—
7	F.	2 years.	Recent adhesions on the right side.	Scattered miliary tubercles in two upper lobes of the right lung.	"	"	Broncho-pneumonia of the left lower lobe.
8	F.	4½ years.	A few tubercles on the right pleura.	A few tubercles in the lower lobe of the right lung.	"	"	—
9	F.	1½ years.	A few tubercles on both parietal pleura.	General dissemination.	"	Large.	A few tubercles on the parietal layer of the pericardium.
10	F.	4½ years.	Tubercles scattered over both pleura.	"	"	Normal.	—
11	M.	4½ years.	Old adhesions at the right apex.	Stuffed with rather advanced miliary tubercles.	"	"	Liver and spleen large; tubercles in both. Perisplenitis.
12	M.	5 years.	—	General dissemination.	"	"	—
13	F.	8 years.	—	Slight general dissemination.	Very extensively caseous.	"	Acute endocarditis.
14	F.	6 months.	—	Tuberculous consolidation of the left upper lobe. Cavity in the right upper lobe. General dissemination.	Not noted.	Not noted.	—
15	F.	6 months.	—	Caseous patches in the right middle and lower lobes. General dissemination.	Caseous.	Normal.	—
16	F.	11 months.	—	Caseous mass and cavity formation in the right lower lobe.	"	"	—
17	M.	1½ years.	Right lower lobe universally adherent.	Extensive caseation of the right lower lobe.	"	"	Liver large
18	M.	1½ years.	Pleuritic adhesions at the right base.	Caseous mass at the base of the right lower lobe.	Not noted.	Not noted.	—
19	M.	2 years.	Pleuritic adhesions.	Cavity in the left lower lobe and tubercles in the rest of the lung. A few in the right lung.	Extensively caseous.	Normal.	—
20	F.	2 years and 10 months.	Recent adhesions of the right upper lobe.	Caseous patch in the right upper lobe, beginning to break down.	Caseous.	Large.	—
21	F.	3 years.	Patch of tubercles on the right parietal pleura and adhesion to diaphragm.	Extensive tuberculous broncho-pneumonia.	"	"	Tuberculous cholangitis; perihepatitis; perisplenitis.
22	M.	6 years.	—	Old fibroid change; recent tubercles and caseous masses in the right upper lobe. Caseation of both lower lobes extending from glands.	Very extensively caseous.	Normal.	—
23	M.	7 years.	—	Caseating right upper lobe due to rupture of a caseous gland into it.	Caseous.	"	—
24	M.	3 years and 7 months.	—	General dissemination.	"	"	Tuberculous mass of old standing in the right external capsule. Tuberculous nodules in the cerebellum.
25	M.	13 months.	—	General dissemination, especially at the right apex.	"	Caseous.	Tuberculous subcutaneous nodules. Four caseating nodules in the brain.
26	M.	1 year and 5 months.	—	General dissemination. Small vomica in the right upper and left lower lobes.	"	"	Tuberculous ulcers (two) in the small intestine. Perisplenitis.
27	M.	2 years.	—	Caseating and calcifying nodule in the right middle lobe.	"	Extensively caseous.	Intestines not examined.

relationship of the bacillus of bovine tuberculosis to that of the human disease, and on the infectivity of the milk of tuberculous cows, this point is one of extreme importance. In the last edition of Fagge's Text-book of Medicine (vol. i., 1901), edited by Pye-Smith, it is stated in the chapter on Tuberculous Meningitis that "the exciting cause is the entrance of Koch's bacillus into the circulation, and in children this is probably by way of the intestinal tract from the milk of tuberculous cows." Kanthack, Delépine, and others have proved that the bovine tubercle bacillus is frequently present in cow's milk. It has been found by Bang, Bollinger, and others in the milk of cows affected with general tuberculosis or tuberculous disease of the udder. It has been experimentally determined by Hirschberger that the milk of tuberculous cows may be infective, even though the udder is unaffected. Kempner and Rabinowitsch in 1899 found the bacillus in the milk of cows which reacted to tuberculin but gave no other evidence of tuberculosis, and their results have been confirmed by Ostertag, Adami, and Martin. There is, in fact, no shadow of doubt that the bovine tubercle bacillus is often present in cow's milk. One warning must be given on this point. Acid-resisting bacilli similar in nature and appearance to the tubercle bacillus have been also found in milk (Petri, Beck, Santoni, Rabinowitsch, &c.), in the udder (Ludwig Neufeld), in the intestines of healthy and tuberculous cows (Olt), in the timothy grass sometimes used for fodder (Möller), and in the dung (Severin). These bacilli cannot be distinguished microscopically but can be readily distinguished by intra-peritoneal injection into guinea-pigs. Tuberculosis can be produced in calves and pigs by feeding them on tuberculous milk, and by analogy it has been assumed that a similar result will arise in children. In support of this the reports of the Registrar-General are often quoted. In these reports it appears that the disease called "tabes mesenterica," usually regarded as a tuberculous affection, is increasingly prevalent among infants. With regard to this latter statement I wish to enter a very strong protest. Tabes mesenterica is very rare among infants, and there is little doubt that almost all the cases so entered in mortality statistics as occurring in infants under one year of age are neither more nor less than the interesting disease known to the public by that blessed name "consumptive bowels"—that is, diarrhoea and wasting due to improper feeding and ending in death. I have never yet seen a true case of tabes mesenterica in an infant examined post mortem, although I have been constantly on the watch for one, and I am strongly convinced that it would conduce to scientific accuracy if the name were eliminated from our nosology.

To return to the point under consideration. The main channels of infection are the respiratory and the alimentary tracts. Of quite secondary importance are the ear and skin, both of which occasionally prove channels of infection. Let us consider, then, what evidence these post-mortem records yield in favour of one or other of these modes of entry of the bacillus. Using the term "mediastinal glands" to include all the glands in the anterior and posterior mediastinum, at the bifurcation of the trachea, and at the roots of the lungs, a most striking fact is at once revealed. In only two instances were these glands normal and in these the tuberculous process was limited to the base of the brain, being in one of them associated with caries of the cribriform plate of the ethmoid, and in the other possibly secondary to a localised pleurisy at the apex. In two other instances (Cases 14 and 18) no note was recorded as to the condition of these glands, but I have little doubt that, considering the advanced tuberculous disease in the lungs, the glands must almost certainly have been affected. In the remaining 23 cases one or more of the mediastinal glands was caseous. The one most often affected, frequently the only one, was the gland situated at the bifurcation of the trachea, commonly called the pretracheal gland. In four of these 23 cases the mesenteric glands were also caseous. In one of these four (Case 4) the peritoneal surface of the diaphragm was covered with miliary tubercles and there were tubercles in the spleen, while the lungs only showed evidence of bronchitis. The other three cases, in which both sets of glands were caseous, are of much interest.

CASE 25.—The patient was a male, 13 months old, who was under my care for two months for subcutaneous tuberculous nodules. There were four such nodules, varying in size from a split pea to a horse-bean, one of which was said to have been in existence since the age of four or five

months. He developed meningitis from which he died. In addition to tuberculous basal meningitis the brain was found to contain caseating nodules, the lungs showed general dissemination, especially at the right apex, and there was extensive caseation of the mediastinal and mesenteric glands, with a few tubercles in the spleen.

In the other two (Cases 26 and 27) there was evidence to warrant the assumption that the abdominal tuberculosis was secondary to the swallowing of tuberculous material coughed up from the lungs. Thus, in a boy, aged 17 months, tuberculous vomicae were found in both lungs and two small tuberculous ulcers in the small intestines. In a boy, aged two years, an old caseating and calcifying nodule was found in the lung, but unfortunately the intestines were not examined. In nine instances there was more or less dissemination in the lungs, or in the lungs and pleura, but no evidence of old-standing disease. In only one of the nine, the child with subcutaneous nodules, were the mesenteric glands caseous. In 12 instances the lungs showed extensive tuberculous disease of old standing—namely, caseation and in some cases excavation.

Looking at the facts from another point of view it seems somewhat remarkable that, if the alimentary canal is so liable to tuberculous infection as the upholders of the theory of infection by tuberculous milk would have us believe, in only two out of these 12 cases in which the disease was advanced and of old standing in the lungs was there evidence of infection of the mesenteric glands. In two the state of these glands was not noted. Of course, it is clear that such infection may have been present and that microscopical or experimental evidence might have proved some of these glands infected; but even if this were so, the facts strongly confirm the view that the respiratory tract was the primary source of infection. It is also clear that the alimentary tract is not markedly susceptible to infection by the human tubercle bacillus.

It has been stated that the tubercle bacillus of cattle is not dangerous to human beings. Even if we only accept the statement in a modified form and say that the bovine bacillus is not nearly as infective as the human bacillus, our post-mortem facts afford a still stronger proof of the insusceptibility of the alimentary tract to infection by the bovine bacillus, seeing that it so often escapes although exposed to the risk of infection by the human bacillus in chronic tuberculous disease of the lungs. In young children, as is well known, sputum is swallowed and not expectorated. Consequently the liability to secondary infection of the alimentary canal is enormous, whereas the post-mortem evidence proves it to be infrequent. In six instances was there no evidence of tuberculous disease of the lungs and yet in four of these the mediastinal glands were caseous. In one of the four the mesenteric glands were also caseous. It is possible that in these cases a small tuberculous lesion may have healed and left no trace visible to the naked eye or that the bacillus reached the gland through some other channel. In some instances in which the lung was affected the question arose whether the lung mischief was primary or secondary to an extension from the glands. In one case it was clear that the main part of the lung disease was due to the actual rupture of a breaking-down gland into its substance (Case 23). In some others the tuberculous process could be seen extending backwards from the glands along the lymph channels in a radiating fashion into the lungs. The probable sequence of events in most cases is that the bacillus is carried by the blood or lymph stream to a congested gland and there develops, finally causing caseation. Such a caseous gland may remain quiescent, may become calcified, may break down, may ulcerate through into the trachea or oesophagus, or may rupture into the lung or pleural cavity. In any case if it breaks down the infective material may become widely disseminated and cause a general infection. The post-mortem evidence may be summed up shortly as proving that the respiratory tract is the great channel of infection. It therefore follows that the danger from swallowing tuberculous cows' milk has been much exaggerated.

It is sometimes asserted that the bacillus can get into the system through the alimentary canal without producing a local lesion. Caseous mesenteric glands are found although the mucous membrane of the intestines appears normal. If the bacillus does not pass out of the intestines through the lymph channels to the glands it might possibly pass into the blood stream. Practically all the blood from the intestines goes through the liver. We should expect, then, that if the bacillus passed into the blood stream it

would produce tuberculous disease of the liver. Miliary tubercles are indeed found in the liver, more often in the spleen, and less often in the kidneys, but only when there is considerable general dissemination throughout the body. It is rare to find old tuberculous foci in the liver and in none of these cases was such a focus found. There is no evidence at all strongly in favour of infection of the blood stream through the intestinal tract.

5. *Evidence derived from the diet of the patients.*—In eight out of 13 infants under three years of age the child was brought up on the breast for the greater part or all of the first year of life. In four the mode of feeding was not stated. In one the child was brought up on condensed milk, for the mother was too ill from tuberculous disease of the lungs to nurse it. These facts, as far as they go, are suggestive that cow's milk is not a very virulent source of infection, for a very large number of infants are brought up on cow's milk. During the last 10 years I have brought up a large number of infants on cow's milk, and as far as I know not one of them has subsequently come under my care for tuberculous meningitis. The milk has been boiled if the mothers have carried out the directions given.

6. *The state of the brain as indicative of the prospect of operative treatment proving beneficial.*—In about one-third of the cases there was no excess of fluid in the ventricles. In the remainder the fluid varied from a slight excess to a large amount. In many instances the cerebral tissues were very soft and occasionally almost diffident. Operative treatment can only be indicated as a means of relieving pressure and under the assumption that the child is dying from the coma induced by pressure. Such is not always the case, for many children died comatose in whom there was no evidence of increased intracranial pressure after death. The coma is probably due to the softening of the brain which may be associated with excess of fluid in the ventricles or may occur quite independently. Hence it is clear on anatomical grounds that operative treatment would only relieve pressure in about one-third of the cases, and that even in these cases it would do little or no good on account of the softening so often present and which is dependent upon insufficient blood-supply rather than on an excess of fluid. Moreover, these records indicate how very rarely the disease is limited to the brain and that the operation would only afford temporary alleviation of symptoms.

7. *Classification.*—It is possible to divide the cases on anatomical grounds into three groups: (1) simple tuberculous meningitis, in which the disease is limited to the brain (very rare); (2) tuberculous meningitis, secondary to a localised tuberculosis with little dissemination (the child dies from the meningitis); and (3) general miliary tuberculosis—cases in which the meningeal symptoms bear a comparatively unimportant relationship to the disease.

To conclude, I am strongly convinced that inheritance means exposure to infection of a weakly or predisposed child; that injury is very rarely an exciting or predisposing cause; that the respiratory tract is the great channel of infection; that the alimentary tract is rarely primarily infected; that cow's milk is very rarely, if ever, the source of infection; that limitation of the tuberculous process to the meninges is very rare; that the prognosis is very hopeless on account of the extent of the tuberculous disease elsewhere; and that operative treatment may be discarded as experimental rather than useful.

Upper Brook-street, W.

## OVARIOTOMY IN PREGNANCY: THREE RECENT CASES.

By JOHN B. HELLIER, M.D. LOND.,

HONORARY OBSTETRIC PHYSICIAN TO THE LEEDS GENERAL INFIRMARY AND LECTURER ON DISEASES OF WOMEN AND CHILDREN IN THE YORKSHIRE COLLEGE, VICTORIA UNIVERSITY.

CASE 1. *Ovariectomy at the third month of pregnancy; full term delivery.*—A married woman, aged 32 years, was admitted into the Leeds General Infirmary on Nov. 29th, 1900, for ovarian tumour. She complained that the abdomen had remained large since her last confinement, two years previously, and had steadily increased in size. She had missed two periods. The abdomen was distended by a large ovarian cyst reaching to within three fingers' breadth of the sternum; the umbilical girth was 35½ inches. Fluctuation

and thrill were very perceptible. On vaginal examination the uterus was felt lying anteverted, with a bulky fundus felt through the anterior vaginal wall. The cervix was soft; there were vulval and mammary signs of pregnancy. Ovariectomy was performed on Dec. 1st. The cyst, which contained 164 ounces, was large, multilocular, and non-adherent; the pedicle was from the left side. The right ovary, which was enlarged but not cystic, was not removed. The uterus was about three months pregnant and felt like a flaccid cyst. The wound healed by first intention and the patient made a good recovery with no threatening of abortion. She went to full term and bore a living child.

CASE 2. *Ovariectomy at the fourth month of pregnancy; full-term delivery.*—A married woman, aged 34 years, was sent to me by Mr. W. F. Chrispin of Castleford. Her last confinement was in July, 1900; menstruation returned in September and ceased again at Christmas. She had noticed an increase in the size of the abdomen about Jan. 1st, 1901. She was admitted into the Leeds General Infirmary on March 4th. She said that she had been married 15 years, had had 13 pregnancies and no miscarriages, but only one of her children had lived for more than 13 months. Her own health and general condition were good. The abdomen contained a uterus four months pregnant and a mobile tumour in the umbilical region which seemed to be loosely connected with the uterus. The tumour was rather solid on palpation. The usual signs of pregnancy were present. Ovariectomy was performed on March 9th and the tumour proved to be a semi-solid multilocular cystoma with the pedicle from the left of the uterus. There was extensive adhesion to the omentum and small bowel. The right ovary was normal. The uterus was four months pregnant. The operation was completed in the usual way; no drainage was employed. A continuous catgut suture was used for the peritoneum. The patient made a good recovery, except that there was some suppuration in the wound and the catgut came away entire and unabsorbed 11 days after. She had also a roseolous rash on the fifth and sixth day, which was followed by some desquamation. There was no threatening of abortion. She went to full term and bore a living child on Sept. 1st and made a good recovery.

CASE 3. *Ovariectomy for dermoid cyst in the sixth month of pregnancy; still-born child at the eighth month.*—This is a very interesting case. On May 13th, 1901, Mr. R. Smailes of Leeds asked me to see with him a patient, aged 42 years, who was five months pregnant and in whom he had discovered a post-uterine tumour. She had had three previous normal pregnancies and two miscarriages, the last being in the summer of 1899. After this she menstruated regularly till December, 1900, when she became pregnant. When two months pregnant she had some vaginal coloured discharge and the uterus was found to be retroflexed, and a pessary was applied. In April an examination was made to determine the position of the uterus, and the tumour was found in the pouch of Douglas. When I saw the patient she was a healthy woman in good condition and had no symptoms to suggest that pregnancy was abnormal. On vaginal examination an elastic cystic mobile tumour was found in the pouch of Douglas. It could be pushed up but soon returned. It seemed to be almost certainly ovarian and its removal was strongly advised, as it might cause serious complication in labour if it was left alone. Ovariectomy was performed in a nursing home on May 27th, Mr. Smailes administering chloroform, and Mr. C. H. Moorhouse assisting me. A median incision exposed the large flaccid uterus reaching to the umbilicus. The pedicle sprang from the right side; the oviduct was so greatly enlarged that it had to be examined carefully to make sure that it was not small intestine which it resembled. As traction on the pedicle did not easily withdraw the cyst the hand was introduced around the flaccid uterus and the cyst was extracted entire. The pedicle was twisted, the tumour was deeply congested, and there was free ascitic fluid. The left ovary was normal. The operation was concluded in the usual manner, with a continuous catgut suture through the peritoneum and interrupted silk-worm gut through the skin and muscle. The tumour was a dermoid cyst containing hair and sebaceous material and of about the size of an orange. During the first 24 hours after the operation the patient had more severe abdominal pain than I ever had observed after a successful abdominal section. She described the pain as agonising. There were no other bad symptoms and morphia administered hypodermically relieved the pain. She made an excellent recovery. The wound healed by first intention and she went home on an

ambulance at the end of three weeks and rested a week in bed. She got up and felt well, but said that she thought the child was dead. The abdomen did not increase and the breasts were flaccid. On August 5th she was delivered of a stillborn male fetus about eight inches long and very slightly macerated. The uterine surface of the placenta showed calcareous degeneration. She made a good recovery.

In Case 1 the enlargement of the right ovary might well be caused by that physiological enlargement of an ovary which is due to the presence of the corpus luteum of pregnancy. This condition ought to be borne in mind lest the mistake should be made of removing such an ovary. In Case 3 the operation for a small ovarian tumour concealed behind a large pregnant uterus is unusual. It was fortunate that the cyst was discovered. Its removal was easy, but if there had been adhesions in the pelvis the operation might have been difficult. It might have been necessary to extend the incision and to draw forward the womb. The child seems not to have survived the time of the operation. The cause of death is obscure, the operation was short, there were no symptoms of sepsis afterwards, and practically no pyrexia. The very severe pain and the morphia injected for it may have had something to do with the result. It is important to note that vaginal tapping would have been of no avail to lessen the cyst at the time of labour, the contents being caseous.

Ovariectomy is now recognised as the best treatment for almost all cases of pregnancy complicated by ovarian tumour, and the earlier it is done the better. It is best for the mother and best for the child (I do not here discuss the treatment of ovarian cyst at the full term and during labour). To leave the case untreated involves a risk of torsion of the pedicle amounting to 9 per cent., and also a risk of damage to the tumour in labour, especially in such a case as No. 3, and as pregnancy advances the ovarian pedicle is apt to become shortened by absorption of the broad ligament and hence the operation is less simple. The mortality of the expectant method was found by Remy to be 23 per cent. for the mother and 39 per cent. for the child.<sup>1</sup> The mortality in cases in which pregnancy has been terminated for the presence of ovarian tumour was 22 per cent. in 135 cases collected by Dsirne.<sup>2</sup> On the other hand, the mortality of ovariectomy in pregnancy performed with modern precautions is estimated at 5.9 per cent. by Dsirne, 8.4 per cent. by V. Weiss, and 4.09 per cent. by Vinay.<sup>3</sup> About one-fifth of the cases abort. The best results for the child are obtained between the third and fourth month. Even double ovariectomy has yielded good results for the child. In 17 cases there were only two abortions and three premature labours.<sup>4</sup>

LESLIE.

## A CASE OF EPIDEMIC DIARRHOEA IN AN INFANT TREATED BY IRRIGATION OF THE BOWEL.

By WILLIAM B. BENNETT, M.R.C.S. ENG.,  
L.R.C.P. LOND.

CASES of epidemic diarrhoea in infants during the past months have as usual been very numerous and very fatal. In his report on the health of the City of Liverpool during 1900, the medical officer of health (Dr. E. W. Hope) informs us: "As is always the case, the mortality from diarrhoea chiefly affected infants, nearly three-fourths of the total number of deaths being those of infants under 12 months old. It commenced to increase about the end of June and continued until October. 900 deaths were registered during this brief period, and to these must be added deaths from the closely allied or identical disease, English cholera."

The usual remedies for this deadly disease are very numerous and generally very useless. Having had many cases of epidemic diarrhoea under my care during last summer I have usually adopted the recognised forms of treatment. The diet, of course, in all cases is of the first importance, and here it is a matter of experience

that all milk and food containing milk should be cut off at once, white of egg and water, or barley-water alone, being the best diet for a few days. This alone in early simple cases is often sufficient, the vomiting particularly being very quickly arrested. A full dose of castor oil as early as possible is also excellent if it can be retained. The majority of cases, however, do not come under notice until the infant has been ill for some days, and even in early cases the above treatment is often quite insufficient, the diarrhoea and pain persisting. The drugs used are numerous, but many of them, particularly powders, are immediately vomited and so are useless. Grey powder, or some antiseptic such as the solution of perchloride of mercury, is very popular and useful, but the infant becomes so emaciated and weak in a very short time that some more immediate remedy is needed. The usual astringents are often of no avail, only acting as emetics, and then recourse is had to opium in minute doses, which is frequently necessary owing to the intense pain. So many of these cases after the most careful treatment end in convulsions, emaciation, and death that one is driven to the conclusion that these routine remedies are really of very little use, as is well shown in the following case, an account of which should prove of some interest since the child was cured in an unusual, but very simple, manner.

An infant, aged seven months, was taken ill with vomiting and diarrhoea on August 3rd, 1901. The mother gave him a dose of castor oil but no improvement taking place she brought him to me on the evening of the 4th. The child was then vomiting, being continually purged and in great pain, drawing up his legs on to the abdomen. I stopped all milk and other food and put him on barley-water only. This at once relieved the vomiting but the diarrhoea persisting I gave him on the 5th one and a half drachms of castor oil besides small doses of the solution of perchloride of mercury every three hours. No improvement taking place and the abdominal pain being exceedingly severe on the 6th I added to the perchloride one-minim doses of tincture of opium. This gave some relief to the pain and at first diminished the number of motions also. The stools were throughout very watery and slimy and during the first few days the smell was very offensive. The number of movements during the 24 hours varied from eight to 12, each being accompanied by severe abdominal pain. I tried, amongst other drugs, bismuth subnitrate, but it was at once thrown up. In this state the child continued until the 9th when the number of motions and the pain became greater and in the afternoon he had severe convulsions which were, however, controlled by bromide of potassium. On the 11th the convulsions returned, requiring more bromide. The child was now in a very serious condition, the tongue being dry, red, and raw, the abdomen tense and tender, and a painful movement of the bowels taking place every hour or oftener. I had more than once dropped the opium for a short time, but only with worse results. On the 12th I adopted a new line of treatment, washing out the large bowel with a hot weak antiseptic. I decided to wash out the bowel on account of the great success of this method in cases of acute dysentery in South Africa, as many of us when serving there as civil surgeons had found. I used a solution of permanganate of potassium, about a teaspoonful in a pint of water. The child was held on the mother's lap on his side, and 12 ounces of the hot solution were forcibly injected into the rectum with an ordinary Higginson's syringe. It was impossible to inject a greater quantity, as this amount was only injected with great difficulty and very slowly owing to the violent efforts of the child to expel it. On the nozzle being withdrawn the fluid was immediately shot out in all directions. I then in the same way injected about eight ounces more, meeting with the same opposition and result. The child seemed none the worse and I stopped all medicines from that moment.

The subsequent history was as follows. The child had no more pain or diarrhoea, and seemed very comfortable when I went away shortly afterwards. He soon fell asleep and in the afternoon had an easy movement of the bowels, formed and natural in all respects and without any of the previous straining or pain. During the night he slept well and on the morning of the 13th the mother told me that he laughed for the first time since he had been taken ill. On the morning of the 14th, the tongue being moist and clean and the child comfortable in all respects, he resumed small quantities of the prepared food which he had previously been taking. In the evening, no movement of the bowels having taken place for 48 hours, one drachm of castor oil was given and two

<sup>1</sup> Pfannenstiel in Velt's *Handbuch der Gynäkologie*, Band iii., 1, p. 429.

<sup>2</sup> Archiv für Gynäkologie, Band xliii., Heft 3; also Norris, *Obstetrics*, 1., p. 249.

<sup>3</sup> Pfannenstiel, *loc. cit.*

<sup>4</sup> Mainzer, see Velt, *loc. cit.*

drachms more were administered the following morning, as the first had taken no effect. The bowels were twice moved the same day. Except for the emaciation and weakness the infant now seemed to have quite recovered, his digestive tract causing him no more trouble. For a week or two he was naturally weak, but two or three weeks later he was quite strong and since then has had no relapse.

The advantages of the above method are quite obvious. It is easily and quickly carried out, is quite safe, and is very speedy in its results. My only regret in the above case was that I had not adopted the final treatment much earlier. For the future, if correction of the diet and the administration of some simple antiseptic is not followed by immediate beneficial results, I shall at once wash out the bowel in the manner described.

Liverpool.

## SOME OBSERVATIONS ON CERTAIN TROPHIC HINDRANCES TO BONY GROWTH.

By HEATHER BIGG, F.R.C.S. EDIN.

SOME time ago Sir William Gowers asked me if I had any facts recorded in my notes which would enable the question to be answered. "What is the difference in the rate of hindrance to growth of bone in infantile paralysis as years go on?" And again, quite recently, he wrote to me to know if I had ever met with a case similar to one which he "had lately seen in which in a year or two there was considerable elongation of the paralysed leg and it had clearly occurred at the hip-joint." This latter question is somewhat cognate with the former and I might readily have answered both from my own recollected experience, but as the subject which he suggested seemed one of very great interest I determined to make a complete analysis of my measured records of cases of infantile paralysis over the last 20 years and the results so obtained are indicated in this paper.

I should state that in all cases in which I have found that the limbs required mechanical appliances I have invariably been in the habit of taking, in addition to careful measurements, an accurate outline tracing of the limb on a sheet of brown paper. When these tracings have accumulated over some years they have been sorted and those that have ceased to be of further service have been destroyed. I have recently gone over and destroyed some thousands of superannuated tracings that have accumulated since 1880, and out of these I picked the tracings and measurements of 590 cases of infantile paralysis which seemed suitable for the investigation which Sir William Gowers had suggested. I found that a very large proportion of these cases had been sent to me by himself, by Sir J. Russell Reynolds, and by Dr. Julius Althaus, and that in the older instances I had complete records of dimensions extending from earliest childhood up to the adult termination of bodily growth.

For the purposes of correct comparison I have taken only the lower limbs as the basis, and I have selected solely those cases that are unilateral in order that the irregular growth of the affected limb might have the regular rate of growth of the sound one as a definite standard for distinction. Moreover, as regards dimensions I have disregarded all minor measurements, circumferential or otherwise, and have taken as the simplest index the difference between the lengths of the two limbs from the iliac crests to the ground-surface of the heels. In other words, the record that I have selected as the figure for analysis is that amount of heightening that it is necessary to superadd to the heel of the shorter limb in order that the pelvis may be rendered truly level at its iliac crests when the patient is standing with straight legs. It is true that in many cases I have also taken the boot-maker's records of the respective lengths of the feet as adjunctive data; but only for confirmatory purposes, as a foot-length is scarcely a reliable index of growth, seeing that a paralysed foot will often be spuriously lengthened by the falling and flattening of its arch.

In an ordinary case of infantile paralysis such as is most commonly met with it is at the outset the motor failure that is principally obvious, and as a rule it is this alone that draws attention to the nature of the disease, whether the motor failure be shown by a complete loss of power in

a limb or only by such slight difference in the balance of muscular power as merely leads to some little peculiarity of gait. But from the onset of the disease up to the adult termination of growth there becomes evident (apart from muscular wasting) a distinct trophic hindrance to bony development, and the question that I have sought to answer in my measured analysis of close on 600 cases is, What is the prospective amount and the relative duration of this hindrance during the whole period of bodily growth? I may say at once that the cases separated themselves into three distinct groups which I will first enumerate and then consider in detail. These groups are as follows: (1) cases in which the trophic hindrance continues during the whole period of bodily growth up to adult age and in which the difference in length between the sound and the affected limbs continues progressively to increase during that period; (2) cases in which the hindrance lasts only for a time, after which both the sound and affected limbs continue to grow at the same rate and the then existing difference between the two remains stationary; and (3) cases in which after the hindrance has lasted for a time and then ceased the affected limb tends to catch the sound one up in growth and in some rare instances actually does so, so that the difference between them is either diminished or even extinguished.

*Group 1.*—The cases which fall into this first group and in which the trophic hindrance is continuous throughout the whole period of bodily growth are by no means the commonest. The amount of loss in length varies and may be anything between three-quarters of an inch up to three inches, and even in rare cases more than this. The rate of hindrance to growth is generally even—that is to say, the heightening that has to be added to the shorter limb in order to keep the iliac crests level is superadded by regular increments during growth. Even with this trophic hindrance considerable motor recuperation may take place; and although from this it is clear that the trophic and motor changes bear no absolute relationship to each other, yet it is likewise a fact that those cases in which the original motor incapacity is the severest are generally those in which the trophic hindrance also becomes most marked, this probably being so because a more insuperable stretch of spinal cord has been (cicatricially?) involved. I notice also that the worst cases of which I have records are those that originated 30 or 40 years since—a fact that seems to show that more modern treatment goes a long way towards checking the severer results of the disease.

*Group 2.*—This group comprises what nowadays are the commonest cases—those in which the trophic hindrance comes to an acme, after which it wanes off into cessation and the two limbs continue their growth at an even rate together. For instance, if a child is attacked at two years of age and the heightening necessary to keep the pelvis level is added by increments of an eighth of an inch (that being my usual fraction of measurement) these additions are at first rapid and regular, then less so, and finally, at perhaps the age of 10 years, when the difference in the limbs may have reached from five-eighths to seven-eighths of an inch, no further addition is ever needed to be made. In brief, it would seem as if the trophic blockage in the spinal cord became gradually permeable and finally cleared.

Now, when I notice the very considerable shortenings that were common half a century since (as I find them recorded in my father's case-books), and when I see that the shortening nowadays is, on the average, much less, I can only conclude that modern treatment has had a great deal to do with this. Most of the cases of which I have kept records during the last 20 years odd have been under various medical treatments by medicine, massage, electricity, warmth, and the like, according to the special views of those who sent them to me, and, moreover, the mechanical treatment has materially altered. In the old days a completely paralysed limb was encased in a rigid instrument from hip to heel, and whilst easy walking became by such means immediately possible all muscular movement was precluded, and, as a consequence, no motor stimulus was ever sent through or against the block in the spinal cord. But nowadays the rightful treatment is afforded by giving the paralysed muscles only the exact amount of elastic assistance which they require, and in the efforts of walking and balancing the trophic and motor blockages in the cord tend to clear. The consequence is that not only does the trophic hindrance frequently terminate, but in a large number of instances the motor power is gradually restored from the thigh downwards and

the helpful instrument that originally extended to the hips is able to be removed piecemeal as the case progresses.

**Group 3.**—In this group are comprised those rarer cases in which after retardation has ceased there is a positive recoupment in growth. My attention was first drawn to this some 15 years since in the case of a boy whose affected foot and leg, during his later and athletic school-days at Rugby, gradually began to catch up its fellow, and since that time I have carefully watched for and have noted similar instances in which recoupment was either partial or even complete. The process seems to be in some way analogous to those common examples in girls in whom one breast will develop some time before the other, and yet the latter when it starts will catch up to its fellow and both will finally be of the same size. What the explanation is in cases of infantile paralysis I must leave to pathologists and content myself with only recording the facts.

Now, all the cases that I have just grouped are cases of ordinary infantile paralysis and they are largely dealt with by authorities on the nervous system, as it is the motor failure that so necessarily calls urgent attention to the disease. Trophic failure, as I have said, is also their usual accompaniment, but it bears no distinct relation to motor incompetency. It is therefore to be expected that there would be a malady in which trophic failure exists alone, and such is indeed so. Only as these cases have no disturbing motor drawbacks they are not taken to the nervous-system specialist, but are usually only to be detected by those who find them as one of the causes of extrinsic lateral curvature of the spine where the pelvis is tilted out of place by the shortness of an undergrown limb. In the *British Medical Journal* of April 6th, 1895, I briefly drew attention to what I took to be an unrecorded fact—that the shortening of a leg was very often “due to a retarded nutrition of one side of the body by what might be called *infantile trophic paresis*.” To this statement I may now further add that I have observed that the trophic hindrances are the same as when this trophic incompetency is conjoined to motor infantile paralysis, and they drop into similar groups.

It is obvious that where trophic paresis causes the shortening of one leg it is unilateral; but I have good grounds for knowing that bilateral cases are not uncommon, although I have usually detected them when examining the legs for something quite different. The evidences are as follows. The lengths of all parts of the body have a distinct relationship well known to sculptors and those who measure the body accurately. If the length of an arm or of a foot be given the lengths of all other parts of the body can be readily estimated; hence if the length of a child's thigh-bone from the great trochanter to the knee is found to be nine inches it is known that the measure from the knee to the heel should be 11 inches. In a normal body the relationships are always exact, but every now and then, generally in examining a case of knock-knee, I have found a gross discrepancy of proportion to exist—as, for example, the legs from knee to heel might be an inch or so less in length than they should be. And, further, in keeping a continuous watch on these cases I have found that the same grouping of hindrance is apparent—that is to say, that sometimes the entire disproportion will disappear during growth, sometimes it will be diminished, and sometimes it will persist.

In concluding these observations I may add a few words on Sir William Gowers's second question respecting his case of elongation of a paralysed leg “clearly occurring at the hip-joint.” If Sir William Gowers had not accentuated this latter point I should have been inclined to hold that the case was one of those which I have classed in Group 3. I can only say that I have never observed such a case as his. I have, however (as others may have done), noticed cases of shortening at the hip from injury without disease and have known them to be accidentally diagnosed as paralytic. To give an instance, a girl, eight years of age, was brought to me the other day who two years previously had fallen violently down on her right hip. After the bruise over the trochanter had cleared away nothing wrong was noticed, but a few months later she began to walk queerly. A diagnosis of infantile paralysis was made and a course of massage was ordered which had been excellently carried out for a good many months when the parents brought the child to me for an opinion. The condition was this—the right trochanter was three-eighths of an inch higher than its fellow and not sufficient for dislocation, but the lengths of the bones were similar in both legs and there were no evidences of

motor or trophic paralysis. It seemed clear, then, that the original injury had caused some inflammatory softening in the neck of the soft bone of the child and that this had yielded under the weight of the body in walking into a more obtuse angle than its fellow. A skiagraphic inspection confirmed this view. But the result of the excellently conducted massage had been to increase the circumferences of the originally injured limb to over half an inch in excess of its fellow. The case was interesting as it showed beautifully the trophic effects of massage on a limb that was in complete health. Such an experience, if instructive, is rather rare.

Wimpole-street, W.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### CANCERUM ORIS WITH ITS COMMON COMPLICATIONS.

BY R. CAMERON, M.B., CH.B. EDIN.

CANCERUM oris, though fortunately such a rare disease in comparison with other varieties of stomatitis in children, admits of no reasonable mistake in diagnosis. The distinctive macroscopical character of the lesions, the discolouration of the tissues involved, and the fœtid smell from any part of the surface abraded, present a picture typical of the disease as it is described in the text-books. The only two cases which have come under my notice were by a strange coincidence admitted into hospital during the same week, the one having an exceedingly rapid course from start to finish and the other after a mild incidence and rather chronic course (for this affection) becoming suddenly complicated by heart failure.

**CASE 1.**—The patient was a female child, aged three years. Three weeks before admission she had developed measles. This disease ran a mild course, though the hygienic conditions were apparently of the worst. A week before bringing her the mother noticed a black spot on the right side of the mouth, on the inner surface of the cheek. This was still present on admission as a dry adherent slough, from the buccal angle extending outwards for about half an inch. In addition, however, the left cheek was now necrosed, putrid, and emphysematous from the lips to the ascending ramus of the jaw, and on the gum above the second upper incisor on the left side was a soft putrid slough. At this point a probe could be inserted and could easily find its way between the gum and the superior maxillary bone. The child was suffering from acute septic poisoning and was in a comatose condition, but there was no evidence of pneumonia, nor was there any lesion of the vulva. All the necrotic tissue was separated with scissors, the surrounding parts were scraped with the sharp spoon, and a little nitric acid was applied on a dry sponge, taking care to prevent this from injuring sound tissue. Within a few hours the remainder of the upper gum became soft and pulpy, and on being removed showed the superior maxilla to be necrosed and irregular and green in colour. The pus, which was plentiful, stained the cottonwool and sponges a bluish-green colour. The child died about 20 hours after admission.

**CASE 2.**—A woman, aged 46 years, was admitted with two black gangrenous spots on the inner surface of the right cheek; one involved the right angle of the mouth and the adjacent portion of the lower lip, and the other was on the buccal surface opposite the two upper bicuspid, but neither involved the whole thickness of the cheek. The surface was exposed, and under chloroform the affected portions were carefully and completely removed and nitric acid was afterwards applied. On the following day a new area showed itself posteriorly to the site of the original sores. This was again treated in the same way, except that carbolic acid was applied instead of nitric acid. During the following night symptoms of heart failure appeared, and in spite of digitalis, ether injections, and alcohol death resulted. No new focus had appeared, pneumonia was not present, and the pudenda showed no sign of noma.

Absorption of carbolic acid was suggested as the cause of the collapse, but I see no reason to regard that as probable, and the urine which was withdrawn was in no way abnormal. The disease had been slowly progressing for a fortnight before surgical interference. The patient suffered from pulmonary emphysema and was addicted to alcohol.

In a very large proportion of cases of *cancrem oris* pneumonia or noma, perhaps combined with gangrene of the anus or pneumonia and noma together, appear as complications. Of 173 cases described in the *American Journal of the Medical Sciences* as occurring in a recent epidemic more than one-fifth had one or other complication or both combined. These complications may accentuate the constitutional effects or may introduce a further antagonist to the patient's power of resisting the disease, but from its position and its virulence and rapidity it must always prove exceedingly dangerous to the life of the individual attacked. The patient is always one with a constitution debilitated by disease or habit of life. With this weakened organism we have the disease in a position where, though the nutrient supply of the tissues is abundant, there is also an abundant absorption. Toxalbumins and bacilli will rapidly pass into the blood, and it is reasonable to suppose that in many cases septic emboli and thrombosis may extend through the veins to the cavernous and other sinuses. In nine bacteriological examinations carried out during the American epidemic a leptothrix was found constantly present, but it is impossible to fulfil all the laws which are required to prove this to be the distinctive organism of the disease. Probably it is a mixed infection, for there are always numerous other bacilli and cocci present, and in one of my cases the colour of the pus was distinctly bluish-green, as it would be under the influence of the bacillus *pyocyaneus*.

Cardiff.

#### A CASE ILLUSTRATING THE EFFECTS OF PRESSURE ON EARLY SYPHILITIC WARTY GROWTHS.

BY ARTHUR SHILLITOE, M.B. CANTAB., F.R.C.S. ENG.,  
SURGEON TO OUT-PATIENTS TO THE LONDON LOCK HOSPITAL.

At the October meeting of the Dermatological Society of Great Britain and Ireland I showed a young man with papillomata and condylomata present at the same time on the tongue. He gave the following history. Gonorrhoea was acquired about Christmas, 1900, followed by a chancre on the penis in January, 1901. He was treated privately from January to July and had had no eruption on the body to his knowledge. In June last he had warts on the penis which were destroyed by caustics.

According to Mr. J. Hutchinson, sen., if warts should be found on the penis of a syphilitic subject, the tongue should always be examined for a like condition; and, if present (which they often are), they will be seen to be situated on the posterior third of the dorsum between the arms of the V formed by the circumvallate papillae—that is to say, on that part of the tongue which does not come in contact with the palate and therefore is not subjected to pressure. While agreeing with this—viz., the formation of papillomata on a part not subject to pressure—one cannot but remember how often in venereal patients (both gonorrhoeal and syphilitic) are seen large masses of warts beneath a tight or phimosed prepuce where the pressure must be fairly constant and considerable. On examining my patient I found that he certainly had a few small warts about the corona and on looking at his tongue there were seen several papillomatous growths in the position above indicated. In addition, scattered over the anterior two-thirds of the dorsum and the margins of the organ were eight or 10 large, flat-topped, white condylomata, with sharply defined margins—that is to say, on that part of the tongue which is subject to the intermittent pressure of the palate and teeth. When we consider the positions of condylomata in other parts we find that they, too, occur in situations subject to intermittent pressure—e.g., the natal fold, the inner aspect of the thighs, and the sides of the scrotum.

It seems to me that (1) pressure, as seen in the case of a phimosed prepuce, and (2) no pressure at all, as in the posterior third of the dorsum of the tongue, exert an equal influence in determining the formation of ordinary-looking papillomata; whereas, if the pressure be intermittent, as seen in the anterior two-thirds of the tongue, the inner aspect

of the thighs, and the sides of the scrotum, or in the natal fold, then these papillary hypertrophies assume a condylomatous form.

In conclusion, my patient told me that his tongue was in much the same condition last July and that it yielded so rapidly to treatment that he took no further medicine, until I saw him at the hospital early in October, when the lesions speedily disappeared under mercury.

For permission to publish the above case I am indebted to the Dermatological Society of Great Britain and Ireland.

Frederick-place, E.C.

#### NOTE ON A CASE OF CONGENITAL ATROPHY OF THE RIGHT KIDNEY.

BY R. NIVEN, M.B., CH.B. GLASG.,

ASSISTANT MEDICAL OFFICER, BETHNALL HOUSE ASYLUM, LONDON, N.E.

A MAN, aged 57 years, died at Bethnall House Asylum on Nov. 9th, 1901, from asthenia consequent on general paralysis of the insane, complicated by hypostatic engorgement of the lungs. At the necropsy no trace of the right kidney could at first be discovered. On removing the right suprarenal capsule, however, a small reddish mass of about the size of a scarlet-runner bean was discovered embedded in the surrounding areolar tissue and close to the lower margin of that organ. The connexions with vessels and ureter were thus unfortunately severed before a careful dissection was made. A small vessel, probably a vein, was found emerging from the inner border of the reddish body. A very small artery, probably the right renal, came off the abdominal aorta opposite to, and on a level with, the left renal artery. On dissection, a fine tube was found following the normal course of the ureter and was traced downwards to the bladder which it entered at a point on the right side of that organ corresponding to the point of entry of the left ureter on the other side. A stout hairpin was with difficulty passed through a small surface at the right posterior angle of the trigonum vesicæ, and it travelled along the tube for about two inches. On microscopical examination the reddish mass embedded in fat had the structure of very atrophied kidney substance. A few tubules were seen to be scattered through an abundance of dense fibrous tissue. They were lined with flattened epithelium and were filled with retained secretion. The vessels in the dense fibrous stroma were very thick-walled. The right kidney exhibited some degree of compensatory hypertrophy. Its position and relations were normal. The organ weighed seven ounces, it was of healthy colour and apparently normal on section, and the capsule stripped easily. Microscopical examination showed the kidney to be practically healthy. There were small patches of fibrous tissue here and there, but the glomeruli were not degenerated and the convoluted tubules were not dilated. The urine was neither measured nor examined during life, as the man was during the period of his residence here indifferent to the calls of nature and passed urine and faeces under him. Throughout life there were no symptoms indicating defect in the urinary organs.

For permission to publish this case I am indebted to the kindness of Dr. J. Kennedy Will, medical superintendent of the Bethnall House Asylum.

Cambridge-road, N.E.

#### A NOTE ON A CASE OF PURPURA.

BY T. EDWARD SANDALL, M.B., B.C. CANTAB.

A WELL-MARKED case of purpura is perhaps sufficiently rarely met with in general practice as to warrant a brief report. The following case is of interest on account of the peculiarity and duration of the premonitory symptoms which completely puzzled me at the time, and until I saw the characteristic eruption on the ninth day of the illness I had no idea that I was dealing with a simple case of purpura.

The patient was a girl, aged 15 years, who had always enjoyed good health but had not yet menstruated. I first saw her on Nov. 11th, 1901, when she complained of acute pain in the calf of the leg and in the popliteal space on both sides which, having begun the day before, became so acute that she was quite unable to walk and she had to crawl upstairs to bed on her hands and knees. There was no other symptom; the temperature was normal, the appetite was good,

the tongue was clean, and the bowels were regular. On examination there was no abnormal appearance of the skin and no swelling or oedema, but there was acute tenderness on pressure on the calf of the leg and in the popliteal space. Lying perfectly still the patient was free from pain, but any attempt to flex the leg was acutely painful. She was kept in bed, hot fomentations were applied to the parts affected, and a mild aperient was given, but no other medicinal treatment was employed as I saw no indication for it. Next day the patient was better, feeling quite well in herself and complaining much less of the pain and tenderness. On the 13th she declared herself well again and got up for a few hours in the afternoon, but this appeared to cause a return of the pain and on the 14th it was worse, especially in the right leg; the right arm and elbow were now affected and there was some headache. Although the temperature remained normal, the tongue clean, and the joints free from swelling, I thought that the symptoms pointed to subacute rheumatism. The patient was therefore kept in bed, the affected parts were wrapped in flannel, and a salicylate of soda mixture was given. During the night of the 14th the patient vomited several times and again on the morning of the 15th, when the tongue was slightly furred and the headache continued, but the pain in the limbs had practically subsided. On the 16th the patient declared herself to be quite well again, and on the 17th treatment was discontinued, and she returned to her duties as a domestic servant. About 10 P.M. on the 19th I was sent for and I found the patient in bed, complaining once more of acute pain in the arms and legs which had begun in the afternoon. The skin was covered with a purpuric eruption, the spots varying from the size of a pin's head to about one-eighth of an inch in diameter or larger. They were most abundant on the limbs and were absent from the face. I was informed that a slight rash had appeared the day before and had faded again. The temperature was 102° F. There were slight oedema of the legs and feet and some effusion into the ankle-joints, particularly the right. On the 20th a few fresh spots had developed, but the general rash was fading; the spots were dull and purple in colour. The pain was less severe and the oedema was less marked. On the 21st the patient felt quite well; there was no longer any oedema or effusion into the joints, there was no pain or discomfort, and the rash seemed to be fading slowly. Improvement continued for the next two days, when the patient left for her own home, and passed out of my observation.

On the pathology of purpura, which is a difficult subject, I do not propose to touch, but I desire to call attention to one or two points as to causation and diagnosis. In the first place, had the non-appearance of the menstrual function any effect in the causation of the attack? There was absolutely no cause, as generally given in our text-books, and I am unable to refer to literature on the subject. The patient was a strong, healthy girl, taking plenty of outdoor exercise, and she had never had any serious illness. The diagnosis of purpura is easy enough with the rash before one's eyes, but the symptoms preceding the eruption were very puzzling and, I think, unusual. What was the cause of the acute pain and tenderness in the limbs? If the term "rheumatism" will cover these symptoms and if the eruption may be termed "purpura rheumatica," I still would urge that there was not rheumatism in the ordinary acceptation of the term. And what were the structures affected? Was the pain neuralgic or muscular? Lastly, I would call attention to the temperature, which remained normal during the whole illness except for a few hours at the onset of the eruption, when it reached 102°.

Alford, Lincolnshire.

**BRISTOL HOSPITAL SUNDAY FUND.**—A meeting of the committee of the Bristol Hospital Sunday Fund was held on Dec. 12th. The Lord Mayor gave an account of the progress of the fund, showing that in 1898 there were 92 collections at places of worship which realised £1128, whereas in 1901 there were 251 collections and £1772 were raised. Grants of £1711 were made to the local medical charities, which included the Royal Infirmary, £704; the General Hospital, £591; the Children's Hospital, £218; and the Eye Hospital, £105. It was decided that the last Sunday in January next should be observed as Hospital Sunday.

## A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo nocendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

### NOTTINGHAM GENERAL HOSPITAL.

A CASE OF TRAUMATIC ANEURYSM OF THE VERTEBRAL ARTERY; FAILURE OF LIGATURE ON THE PROXIMAL SIDE; DISTAL LIGATURE; EXCISION OF THE SAC; PLUGGING; RECOVERY.

(Under the care of Mr. A. R. ANDERSON.)

THE treatment that is theoretically correct for a traumatic aneurysm is identical with that for a recent wound of an artery, that is, ligature on both sides of the wound; and the only exceptions that are admissible are cases where it is impossible or unadvisable to apply these two ligatures. It is generally acknowledged that the internal carotid and its branches form the chief exception to the rule and that with these proximal ligature may prove sufficient, but the vertebral artery from its depth might fairly claim to be also considered unsuited for the usual treatment. The circle of Willis, however, supplies the distal portion of the vessel so freely with blood that it must be acknowledged that ligature on both sides of the wound, or on both sides of the traumatic aneurysm, is imperatively necessary. The following report describes the successful treatment of a most troublesome traumatic aneurysm of the vertebral artery immediately below the third cervical vertebra.

A young woman, aged 21 years, was taken to the Nottingham General Hospital on Sept. 4th, 1900, having been stabbed in the neck a short time previously. The injury was inflicted by the small blade of a penknife used for nails and having only a short portion of blade at the end. A small wound, one-third of an inch long, was found over the posterior border of the sterno-mastoid on the left side, about the level of the upper border of the thyroid cartilage; its direction was forwards and inwards. There had been profuse bleeding, arterial in character, and the patient was pale and faint from loss of blood on her arrival. It had then ceased. A pad was placed over the small wound which healed readily and gave no further trouble, and at the end of three weeks she went out apparently well.

On Jan. 2nd, 1901, the patient was readmitted to the hospital with a pulsating swelling in the neck, of about the size and shape of a duck's egg, having its centre opposite the wound. Its upper limit extended as high as the lobule of the ear and its lower limit to within two inches of the clavicle. The pulsation was markedly distensible and a loud bruit could be heard on auscultation. No information could be gained by digital compression of the common carotid artery, the bulk of the tumour interfering with this, and any deep pressure caused the patient much distress. From the situation of the aneurysm and the direction of the wound it was thought probable that the injured vessel was the carotid artery or one of its branches, and on Jan. 4th Mr. Anderson made an incision over the course of the common carotid artery and exposed this vessel, and was somewhat surprised to find that compression of it produced no effect whatever on the pulsation in the aneurysmal sac. It was then concluded that the vessel involved must be the vertebral artery, so the incision was prolonged downwards and this vessel was exposed in the interval between the longus colli and the scalenus anticus, just below its entry into the foramen in the transverse process of the sixth cervical vertebra. Compression of the vessel here immediately and completely arrested the pulsation in the sac. The vessel was then tied with a silk ligature and the wound was closed.

The operation was followed by contraction of the pupil of the corresponding side, due to disturbance of the sympathetic filaments in relation with the artery. In the absence of other evidence this affords proof that the operator had ligated the vertebral artery, and not the inferior thyroid

artery, which lies in front of, and may be mistaken for, it. For a few days all went on well and the wound healed by first intention. Within a fortnight, however, it was seen that the operation had failed to cure the disease, as the aneurysm was pulsating again, with but little diminution in its expansile beat, the failure being no doubt in great measure due to the free anastomosis through the circle of Willis.

On March 14th Mr. Anderson operated again, making a long incision over the sac, which was dissected round and isolated as much as possible. His original intention was to endeavour to chisel away the transverse processes and to find and to tie both ends of the wounded vessel. This obviously could not be done without the removal of the sac, which lay over them from the axis to the sixth cervical vertebra. The sac was therefore incised preparatory to this, but there followed such a rush of arterial blood as to necessitate its continuous compression and to put any deliberate operative procedures in the vicinity of its neck out of the question. The hæmorrhage was readily controlled by pressure of the finger within the sac, which was undertaken by Dr. J. Milne, the house surgeon, and no more blood was lost from this source. The incision was then prolonged upwards and backwards, in a curved direction towards the occiput, and after the trapezius, sterno-mastoid, splenius capitis, and complexus muscles had been divided near their attachments the distal part of the vertebral artery was tied in the sub-occipital triangle, just where it enters the groove behind the transverse process of the atlas. The difficulties were considerable. The upper border of the sac came within the area of the operation, and although drawn down as much as possible with a retractor the deeper dissection had practically to be carried on behind it. Another trouble was from unnamed, but considerably dilated, arterial branches of which a regular plexus was encountered. After the ligature had been placed round the vessel Dr. Milne removed the pressure which during this time he had been keeping on the mouth of the sac and the operator was disappointed to find that even then the bleeding was not completely arrested. It was, however, quite different from what it had been before the distal ligature. There was now no rush or pumping of blood, but still a distinct welling up of arterial blood from the neck of the sac. The sac was then cut away. Two courses now remained—either to remove the transverse processes and to search for, and to tie the ends of, the vessel, or to plug the neck of the sac, which lay between the transverse processes of the third and fourth cervical vertebrae, at which spot the vessel had been wounded. Although the former course was surgically correct various considerations induced Mr. Anderson to employ the latter. In the first place the patient had lost a good deal of blood and was already beginning to feel the effects of a prolonged and difficult operation which it was desirable to bring to as speedy a termination as possible. Further, it was apparent that even moderate pressure controlled the blood now flowing which had no force behind it. The third point which induced him to resort to pressure was obtained from the anatomy of the parts involved. The vertebral artery in its course through the neck gives off numerous lateral branches which pass out between the transverse processes and form a plexus, anastomising above with the princeps cervicis from the occipital artery and below with the profunda cervicis from the superior intercostal artery. This was now the only source left from which blood could be supplied to the interior of the sac. It forms the only collateral circulation after ligature of the vertebral artery, excluding the direct route through the circle of Willis. These vessels had no doubt become enlarged as the result of the ligature of the vessel at the root of the neck, but making allowance for this it was considered very improbable that they could furnish a supply of blood which would not be arrested by such direct pressure as could now be employed. The site of the neck of the sac was packed with strips of sterilised lint dusted with iodoform and the wound was closed except at this spot. The plug was left in position for a week, at the end of which time it was removed, and the cavity was lightly packed with iodoform gauze. The wound, except at this spot, healed by first intention and the patient made an uninterrupted recovery. The movements of the neck and shoulder are highly satisfactory, those of the latter being practically unimpaired.

*Remarks by Mr. ANDERSON.*—Aneurysm of the vertebral artery in the neck, traumatic or other, is of so rare occurrence that it may be looked on as a clinical curiosity. As there is, however, some information to be obtained from this case

which might be helpful in treating a similar one I have thought well to record it. Thus it is evident that ligature of the vertebral artery on the proximal side cannot be relied on to arrest bleeding from a wound of the vessel or to cure a traumatic aneurysm, although it is possible that in another case it might be successfully employed. Literature of wounds of the vertebral artery is scanty, but a great deal has been written concerning wounds of the branches of the other great vessel of the neck, the common carotid artery. Some years back I collected and tabulated in a paper read before the Nottingham Medico-Chirurgical Society 116 cases in which the common carotid artery had been tied for hæmorrhage from one of its divisions, or branches thereof, and of this number 18 died from recurrent hæmorrhage from the seat of injury. Several of these were instances of wound of the internal carotid artery, which is a larger vessel than the vertebral and has a very direct communication at the base of the skull with the vessel of the opposite side. Judging, therefore, by analogy, the percentage of failures in the case of the vertebral artery should be less than that of the carotid. I insisted, in the paper referred to, on the importance of using every endeavour (especially in wounds of the internal carotid artery from the mouth), to find and to tie both ends of the injured vessel, in accordance with the recognised surgical axiom which applies to arteries in other parts of the body, and I should have been glad to apply this principle in the case narrated but found it impossible to do so under the existing conditions.

Compression of the carotid artery as a means of diagnosis was not obtainable owing to the bulk of the tumour and the suffering which it occasioned, and when I began the first operation I thought that the aneurysm was probably connected with one of the main branches of the common carotid artery, and my intention was to arrest the flow of blood through it by temporary compression of the common trunk, then to excise the sac, and to tie the ends of the communicating vessel. This was impracticable on finding that the vessel involved was the vertebral artery. After ligating it at the root of the neck the flow of blood into the sac was practically stopped, as evidenced by the cessation of pulsation and the shrinkage in its bulk. It would at that time have been possible to excise the sac, to cut away the transverse processes, and to find and to tie both ends of the vessel at the seat of the lesion. On the other hand, the result at the moment appeared to be highly satisfactory, and the getting at the wounded vessel would have involved a somewhat serious and difficult operation. Further, there seemed to be a reasonable prospect of success afforded by the knowledge that ligature of the common carotid artery has been frequently (although by no means invariably) successful for wounds of the internal carotid artery and that the anatomical conditions alluded to above were all in favour of the vertebral artery. The development of the collateral circulation in the month that intervened between the two operations, with the consequent number of unnamed arteries of respectable size that were met with during the operation, was quite remarkable and is worth more than a passing notice.

## GOVERNMENT CIVIL HOSPITAL, HONG-KONG.

### A CASE OF RUPTURE OF THE INTESTINE; ABSENCE OF SYMPTOMS FOR SOME TIME AFTER.

(Under the care of Mr. J. BELL.)

THERE are two points in connexion with the following case which are of importance. In the first place, it will be noticed that the defence advances the statement that spontaneous rupture of bowel can occur. The passage on which the defendant's counsel relied was taken from a work by Dr. Francis Ogston.<sup>1</sup> The exact words are as follows: "It is to be kept in view by the medical jurist that in some cases death happens very suddenly from a spontaneous rupture of some part of the bowels, even without any previous disease." Dr. Ogston was a very careful observer and therefore great weight may be attached to what he has said, and doubtless the statement quoted above was founded on some case or cases he had met with; but it must be borne in mind that the observations on which this statement

<sup>1</sup> Medical Jurisprudence, 1878, p. 468.

is based were made many years ago, and our improved methods of observation might show the presence of previous disease where formerly it would not have been noticed. In any case, the character of the rupture and its situation must all be taken into account in forming an opinion on its etiology. The second point that the case suggests is the length of time which could elapse after such a rupture without the appearance of symptoms. In the defence it was suggested that 36 hours might have passed without any symptoms appearing. This is certainly impossible. If symptoms do not occur at once it can only be because that part of the bowel chances to be empty at the time of rupture; but as soon as any contents pass into it from above extravasation must occur with its attendant signs and symptoms. Thus these might possibly be delayed for a few hours, but not for very long.

Whilst being arrested an adult Chinaman was kicked—so it was alleged by certain witnesses—by the native policeman who was making the arrest at 3 P.M. on July 24th. The man walked to the police-station and made no complaint until 5 P.M. when he said that he was in pain. He was removed by launch to the Government Civil Hospital, Hong-Kong, and on admission was in no pain or collapse. At 1 A.M. on the 25th he was in great pain, which seemed to be paroxysmal and was referred to the whole of the abdomen. His pulse was good and no dulness could be detected in either flank. At 5 A.M.—14 hours after the alleged assault—collapse set in suddenly and he died at 9 A.M.

*Necropsy.*—At the post-mortem examination no external bruise or extravasation into the muscles could be seen. The small intestine about one inch above, and to the left of, the umbilicus was torn almost completely across. The peritoneum was intensely congested, but no lymph was thrown out. Bile and intestinal fluid were found in the abdominal cavity, but no food was seen.

*Remarks by Mr. BELL.*—The defendant's barrister quoted Ogston as saying that medical jurists should remember that it is possible to get a rupture of a perfectly healthy gut without any cause whatever. This view I naturally declined to agree to, and I think that in any future edition of this work some explanation should be given or cases cited to prove this fairy tale. It was also set up in defence that the rupture had occurred in a fight 47 hours previously to death. This I declined to agree to in view of the extent of the peritonitis, which I took to be 12 or 18 hours old. The supposed assailant was acquitted by the jury.

## Medical Societies.

### PATHOLOGICAL SOCIETY OF LONDON.

#### *Cortical Localisation, with Special Reference to the Higher Apes.*

A MEETING of this society was held on Dec. 17th, Mr. W. WATSON CHEYNE, the President, being in the chair.

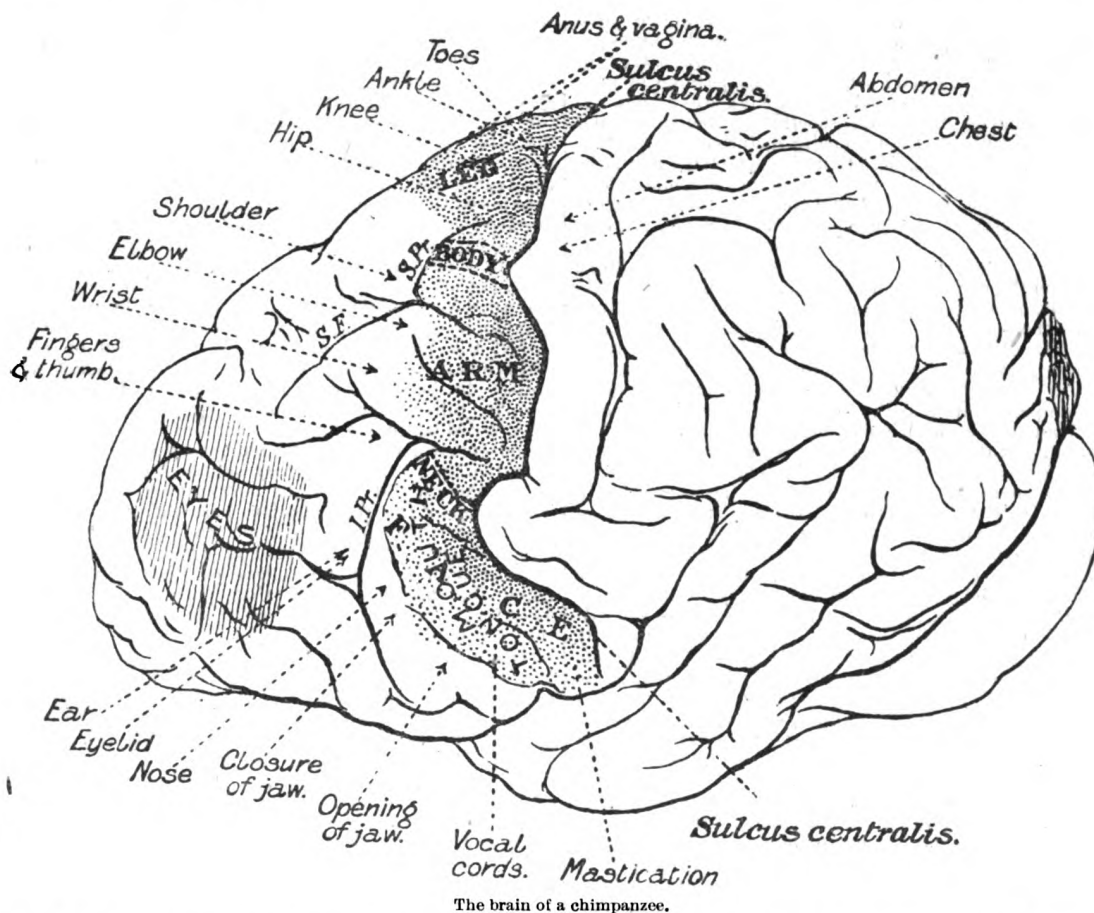
Professor C. S. SHERRINGTON read a paper on Cortical Localisation, with Special Reference to the Higher Apes. After referring to the influence which the work of Hughlings Jackson, Hitzig, Ferrier, and others had on the conception of the cortical centres, he said that considering the complex connexions which existed with the longer neurons it was remarkable that such accurate results could be obtained by methods which were comparatively rough. Eleven years ago Beevor and Horsley published the results of their experiments on the orang-outang and that had been the only anthropoid ape experimented on up to the present time. The brain in the anthropoid ape was at its highest development, except in man. The gorilla had the highest development, the chimpanzee was next, and this was followed by the orang-outang. Two species of chimpanzee had been experimented upon. The chief points of difference which had been observed with regard to the limits of the excitable area were that no excitable area could be found behind the Rolandic fissure and that the anterior boundary could not be defined by any definite sulcus. The anterior margin of the excitable area was very variable in individual apes. The position and size of the fissures were also liable to extreme variation—in fact, in comparing various specimens of brains hardly any two

were exactly similar. This frequency of individual variation was so great that a preserved brain could not be used as a guide to the localisation of centres in experimental work, and the function of the centre had to be determined by direct stimulation. The fissures of the cortex did not bear any relation to the boundary of function of the cortical centres, and the asymmetry in the sulci was often so marked that the topographical relation of the centres on two sides of the brain could not be determined thereby. If it were desired to excise the hand area the only exact method of localising it would be by electrical stimulation. It had been stated that the cortex of the ape responded less readily to electrical stimulation than the cortex of the lower monkeys, but in the experiments which had been performed this had not been found to be the case. The same strength of current which would produce a movement on stimulation of the cortex of a cat or of a bonnet monkey would also produce a similar movement in the chimpanzee. It had been stated by Beevor and Horsley that epilepsy could not be provoked by stimulation of the cortex; that statement was probably correct to some extent, but, on the other hand, epileptic discharges could be produced in certain individuals of the anthropoid apes. A chart was then shown indicating the position of the various centres (see figure). In the tongue area stimulation could not produce protrusion although almost all other movements could be produced. In the area for closing of the eye stimulation caused the eye on the opposite side to be firmly closed while that on the same side was less forcibly closed. An undescribed area representing movements of the trunk muscles had been mapped out between the leg and arm area and also an area concerned in the movement of the perineal muscles. No confirmation could be obtained of the area situated below the thumb centre and described by Beevor and Horsley as giving rise to movements of the head and eyes to the opposite side. The method that had been used in these experiments had been to place one electrode on the cortex, the other being attached as a bracelet to the wrist. The point used for stimulation of the cortex was a fine platinum point on a spring, so that undue pressure on the cortex was avoided. In not one of the experiments performed had any movement been obtained by stimulation behind the Rolandic fissure. In a chimpanzee the hand area was excised and a localised monoplegia resulted. There was no affection of the face or leg. The parts paralysed were the fingers, thumb, wrist, and shoulder, while the elbow escaped. This paralysis only lasted a week, and after a month the ape was able to feed itself with the formerly paralysed hand. A second operation was performed and on stimulation in the anterior corner of the old wound some movements of the hand occurred. This part of the cortex was removed but no further paralysis resulted from this excision, and two weeks later the ape was killed. On examination by Marchi's method degeneration was well marked in the ventral pyramidal tract, in the crossed pyramidal tract, and also in the uncrossed pyramidal tract, and this degeneration could be traced down to the upper lumbar region. In another experiment in which the leg area was removed no degeneration could be found in the ventral pyramidal tract. In a third experiment in which a large lesion had been made behind the Rolandic fissure no paralysis of any kind resulted and no degeneration of the spinal cord existed. In a fourth experiment with a lesion also behind the Rolandic fissure there was no descending degeneration. The gorilla showed the same general arrangement of centres as the chimpanzee. As had been pointed out by Beevor and Horsley the size of the motor cortex in comparison with the whole cortex was relatively smaller in the higher apes than in the lower animals, and since the area of excitable cortex was found to be smaller in the present series of experiments than in those of Beevor and Horsley this difference in proportion was yet more marked.

Dr. F. W. MOTT congratulated Professor Sherrington on his magnificent work which would be of great practical importance. He said that he had performed a necropsy on a patient who had suffered from a monoplegia of the arm and it was found that only a portion of the ascending frontal convolution was atrophied, such a fact tending to confirm the observation of Professor Sherrington that the excitable cortex lay in front of the Rolandic fissure. One other point seemed also to be in favour of this observation—viz., that the large Betz cells were all situated in the ascending frontal convolutions. He asked if Professor Sherrington had been able to trace the pyramidal fibres into the grey matter of the anterior horn, for Professor Schäffer had held that the pyramidal fibres passed into Clarke's column. He asked also whether

any fibres could be traced from the arm area to the occipital region, since such might be expected in the apes which had assumed the erect position. He had himself been able to produce movements of the head and eyes by stimulation in the region of the calcarine fissure.

region, and therefore this case could not be used as a definite proof of the point referred to by Dr. Mott. With regard to Dr. Beevor's observations, he said that his experiments fully confirmed Beevor's and Horsley's observations with regard to the position of the shoulder area. He did not think that



The brain of a chimpanzee.

Dr. C. E. BEEVOR said that the chief points in which the experiments of Professor Sherrington did not agree with those of Mr. Horsley and himself were with regard to the position of the shoulder, since in Professor Sherrington's experiments the shoulder was placed near the face centre, whereas in Mr. Horsley and his (Dr. Beevor's) experiments the hand was near the face centre. He said that some movements of the face and thumb had been obtained from stimulation behind the Rolandic fissure, and he thought that the difference in results might be accounted for by the age of the apes, since their ape was only two and a half years old.

Mr. C. A. BALLANCE said that he had performed some excitation experiments on the bonnet and rhesus monkeys, and had found that both the ascending frontal and ascending parietal were excitable. He had excised portions of the cortex corresponding to movements of the thumb, but had never been able to produce permanent paralysis. In one monkey he had by stimulation of the centre for the big toe on one side obtained movements of both toes, but on stimulation of the area in the opposite hemisphere no movement resulted, seeming to show that the big toes of the individual monkey were represented on one side only.

Dr. J. PURVES STEWART said that he had had the opportunity of stimulating the motor cortex in man in order to determine the situation of the centre for movements of the foot in a man who suffered from Jacksonian epilepsy, and he had been surprised to find that he could only obtain movement from stimulation of the cortex in front of the fissure of Rolando.

Professor SHERRINGTON, in reply, said that the degeneration of the pyramidal fibres could be traced into the grey matter of the anterior horns, but that in this case there was atrophy of the cells of the anterior horn in the brachial

region, and therefore this case could not be used as a definite proof of the point referred to by Dr. Mott. With regard to Dr. Beevor's observations, he said that his experiments fully confirmed Beevor's and Horsley's observations with regard to the position of the shoulder area. He did not think that

## CLINICAL SOCIETY OF LONDON.

*The Association of Moveable Kidney on the Right Side with Symptoms of Hepatic Disturbance—The Theory of Compensation in Disease of the Mitral Valve.*

A MEETING of this society was held on Dec. 13th, Mr. HOWARD MARSH, the President, being in the chair.

Dr. S. H. HABERSHON read a paper on the Association of Moveable Kidney on the Right Side with Symptoms of Hepatic Disturbance. In introducing this subject he defined the term "hepatic diathesis," and instanced three classes of patients in whom functional hepatic symptoms were liable to be set up—firstly, those of definite biliary susceptibility; secondly, those in whom biliousness was induced by circumstances well within their control; and thirdly, those in whom the hepatic symptoms depended on a ptosis of the kidney or the liver. The object of the paper was to emphasise the medical aspect of the condition known as moveable kidney and to describe certain groups of biliary symptoms which were prominent. The cases of moveable kidney occurred chiefly in women, and statistics were given from the writings of Glénard, Landau, Mathieu, and others to show that from 20 to 28 per cent. of all dyspeptic women possessed a moveable kidney. The causes, diagnosis, and symptoms were then narrated, and among the difficulties that occurred in the recognition of the condition the variability of position and

the simulation of an enlarged gall-bladder, of Riedel's lobe (the floating lobe) of the liver, and of certain renal appendicular conditions were cited. The mobility occurred in an enormous proportion of the cases where the moveable kidney was on the right side. The symptoms of moveable kidney were subjective and visceral. Among the latter class the left kidney was more prone to produce gastric than hepatic symptoms. Hepatic conditions occurred in cases of moveable kidney of the right side. They were defined in three groups: (1) general symptoms of severe biliousness; (2) attacks of colic simulating true biliary colic from the passage of gall-stones, and probably identical with Diett's crises; and (3) attacks of jaundice, three cases reported by MacLagan being quoted. The cause of these hepatic disturbances was next discussed and it was suggested that the symptoms might be due either to pressure on the duodenum or common bile-duct, or to traction on the middle portion of the duodenum, or to reflex irritation of the pneumogastric nerve, the two latter being considered the most probable causes. Dr. Habershon divided cases of hepatic symptoms into three classes from the point of view of their symptomatology: (1) cases of uncomplicated ptosis of the right kidney; (2) cases in which the renal condition was accompanied by a coincident ptosis of the liver; and (3) cases in which the renal ptosis was part of a general enteroptosis. In the slighter degrees of ptosis of the right kidney the hepatic symptoms were often paramount and the following classes of symptoms should lead to the suspicion of moveable kidney. 1. The intractability of the hepatic condition which did not yield to ordinary methods of treatment. 2. The fact that the symptoms were produced or aggravated by shaking or exertion in any form, this being entirely contrary to the experience with regard to an ordinary biliousness, not due to ptosis of the kidney. Eight cases were reported to illustrate the various forms of hepatic symptoms and the relief afforded by replacing the kidney in position.—Mr. R. CLEMENT LUCAS said that the symptoms referred to were those which were usually associated with moveable kidney. He did not think that much good resulted from the use of a belt, and he mentioned the case of an athletic young man who suffered from very severe attacks of what was at first thought to be gall-stone colic. A moveable kidney was found and this condition was treated at first by an abdominal belt. The symptoms, however, only became exaggerated. The kidney was then fixed and the patient was completely relieved. In some cases gall-stones and moveable kidney might be associated. He considered that the relation of the kidney to the duodenum was much more likely to be the cause of the hepatic pain than was any referred pain through the branches of the pneumogastric nerve.—Dr. T. J. MACLAGAN said that there were many cases of moveable kidney which gave rise to no symptoms and that in these cases there should be no interference. Moveable kidney was almost always situated on the right side, and if the left kidney was moveable it seldom gave rise to any symptoms. The hepatic symptoms, he believed, were due to the impinging of the right kidney against the liver. He considered that belts were of little service, but that rest was often most beneficial, especially in thin females, although it had recently been stated that it was of little value.—Dr. HABERSHON replied.

Dr. T. STACEY WILSON read a paper on the Theory of Compensation in Incompetence and Stenosis of the Mitral Valve, and he formulated his views in the following propositions. *In mitral incompetence.*—Proposition 1.—The process of compensation necessitated dilatation of the cavity of the left ventricle as well as hypertrophy of its walls and the amount of dilatation in the compensated heart was directly proportional to the amount of blood which regurgitated into the auricle at each beat of the heart. As mitral incompetence involved the leakage back into the auricle of a certain part of the contents of the ventricle at each beat of the heart it therefore followed that in order to compensate for this leakage and to allow of a normal amount being thrown into the aorta at each beat the ventricle must enlarge so as to hold both the normal amount and that which would escape back into the auricle, and it must thicken its walls so as to be able to move this additional volume of blood. The theory of the enlargement of the ventricular cavity was, he said, as follows. On the first occurrence of regurgitation through the mitral valve a progressive over-distension of the auricle would theoretically result from the leakage of blood back into that chamber. As soon, however, as the size of the auricle

exceeded that of the ventricle the latter would during its expansion be drawing towards itself more blood than it could hold, and the momentum of the blood which could not find entrance would tend to dilate the cavity of the ventricle. In that way the ventricle would be dilated by its own aspiratory force until its size was comparable to that of the auricle. That would not occur until the ventricle was large enough to hold the full amount of the leakage in addition to its normal contents. Proposition 2.—The dilatation and hypertrophy which could compensate for the defective working of the left ventricle during systole would, according to this theory, also relieve the auricle from embarrassment during diastole by ensuring the proper filling of the ventricle. For since the enlarged ventricle was able to accommodate all the regurgitated blood in addition to its normal contents it followed that it would be as easy for the abnormal amount of blood to enter the abnormally large ventricle as for the normal amount to enter the normal ventricle. Also the increased muscularity of the enlarged ventricle would ensure the slight addition to the aspiratory force which was required to draw the larger amount into the ventricle. Proposition 3.—Therefore, by the time the expansion of the ventricle had ceased the auricle would have been relieved of all the regurgitated blood and only the normal amount would remain to be dealt with by it. Proposition 4.—Therefore, in fully-compensated mitral regurgitation no extra work would be thrown upon the left auricle, and there would be no embarrassment of the pulmonary circulation and no accentuation of the pulmonary second sound. Proposition 5.—Neither would there be any dilatation of the left auricle unless the regurgitation were extreme. Since the systole of the auricle and of the ventricle together occupied one-half of the cardiac cycle, it followed that only one-half of the full volume of blood would normally enter the auricle during that portion of the cycle. Therefore, there would be room in the auricle during the ventricular systole for any amount of regurgitated blood up to one-half of the total quantity put into circulation at each beat. If, on the other hand, the amount of regurgitation were to exceed one-half of the normal output of the ventricle there might be dilatation of the auricle, even when compensation was fully established. Proposition 6.—According to this theory of compensation there ought to be a slight increase in the loudness of the aortic part of the second sound, because the greater expansile force of the hypertrophied and dilated ventricle would induce a more powerful recoil of the blood in the aorta and would result in a more powerful closing and stretching of the aortic valves than in the case of the normally-acting ventricle. *In mitral stenosis.*—According to this theory the left ventricle increased its aspiratory power in order to facilitate the entry of blood through the narrowed orifice and so established compensation. This was brought about as follows. Proposition 7.—In mitral stenosis the left ventricle contracted with greater force than normal in order that the rebound, both muscular and elastic, might be correspondingly increased. An evidence of that was the increased loudness of the first sound which occurred in mitral stenosis. Temporary embarrassment of the circulation was accompanied by an increase, often excessive, in the loudness of the first sound, which lessened again as the circulation improved. This increase in the force of the ventricular contraction was also suggested by the occurrence of the hypertrophy of the left ventricle which was not infrequently noticed in mitral stenosis. Proposition 8.—The left ventricle altered its beat. Its contraction terminated with greater suddenness and force than normal. This concentration of ventricular effort at the termination of the systole had the effect of further increasing the force of the ventricular recoil which immediately followed the systole, lasting as it did only one-tenth of a second. This was the explanation of the sharp and loud end of the first sound which was so characteristic of mitral stenosis. The characteristic cardiograms of mitral stenosis often showed a more sudden recession of the heart from the chest-wall at the end of the systole than in the normally-beating heart. Proposition 9.—As a result of that additional aspiration the auricle could be relieved of much, if not all, of the additional work which the narrowness of the mitral valve entailed. Very frequently an absence of dilatation of the left auricle in mitral stenosis where compensation was perfect at the time of death would be found. Proposition 10.—Therefore, in compensated mitral stenosis if the narrowing were not very excessive no extra work was thrown upon the right

side of the heart and there was no engorgement of the lungs. As evidence of this the pulmonary second sound of normal loudness was found even in cases of severe mitral stenosis. It was found, too, that the accentuation of the pulmonary second sound, which was characteristic of failing compensation, gradually lessened as compensation improved. No clinical evidences of pulmonary congestion or engorgement might be found even in severe cases of mitral stenosis. Proposition 11—Some increase in the loudness of the aortic second sound, apart from that due to increased arterial pressure, might also be expected because of the increased ventricular aspiration, as suggested in the sixth proposition.—Dr. PERCY KIDD said that the paper was one which it was difficult to discuss without careful consideration.—Dr. F. W. F. ROSS said that Professor Rutherford had been one of the earliest teachers of the aspirating theory of the action of the heart. He considered that the circular fibres of the heart were principally concerned with propulsion of the blood.—Dr. J. KINGSTON FOWLER said that he did not agree with Dr. Wilson's view as to the causation of the accentuation of the first sound in mitral stenosis. He always believed that in the normal heart the valves floated slowly up as the blood entered the ventricles and shut quietly, whereas in the heart with mitral stenosis the valves were thickened and instead of floating slowly up were brought sharply together. The margins of the mitral valve could often be shown to be faceted.

## OPHTHALMOLOGICAL SOCIETY.

### *Exhibition of Cases and Specimens.*

A CLINICAL meeting of this society was held on Dec. 12th, Dr. DAVID LITTLE, the President, being in the chair.

Mr. H. WORK DOBB showed a peculiar New Growth in the Orbit. The patient was a woman, aged 39 years, who was seen in October, 1901, with the history that 11 years ago she had a small growth of the upper lid which in four years had attained to the size of a pea. This was then removed. Two years later a lump appeared and this broke down and healed several times and had attained to the size of a filbert, being situated at the outer side of the orbit. It was adherent to the bone. The eye was pushed to the nasal side and there was an enlarged gland in front of the ear. The whole contents of the orbit were removed and the bone to which the growth was adherent was scraped. The lacrymal gland was normal. The pathologist's report stated that it was an unusual form of carcinoma allied to rodent ulcer. As much difference of opinion was expressed on the sections the growth was referred to a pathological committee.

Mr. HENRY E. JULER showed the following cases: (1) A Congenital Case of Retinal Pigmentation situated towards the Periphery of the Fundus; (2) Peculiar Macular Changes due to Choroido-retinitis; and (3) a case of Congenital Aniridia. In this latter case the mother and daughter were affected. The mother came to Mr. Juler stating that her sight had always been defective and when seen one eye was quite blind from glaucoma. After removal it was found on dissection that there was a ring of iris at the extreme periphery which had caused blocking of the angle. The lens was partially opaque. The daughter had come under the care of Dr. R. D. Batten also suffering from glaucoma, and for this he had performed sclerotomy, but it was not successful. He thought it was contrary to what one would expect that an eye without an iris should have glaucoma.—Mr. C. DEVEREUX MARSHALL stated that he had seen several cases of this sort and he never remembered seeing one which did not have glaucoma. This was due to the fact that the stump of iris which was always found present was sufficient to block the angle, and this narrow ring was quite sufficient to produce the disease.—Mr. E. TREACHER COLLINS had examined several cases and had shown that they were specially liable to chronic glaucoma.

Mr. TREACHER COLLINS showed a child with Congenital Thickenings of the Conjunctiva, Opacities of the Cornea, and a Notch in the Left Lower Lid in the Vicinity of the Outer Canthus.

Mr. G. BROOKSBANK JAMES showed three case of Infantile Tabes due to Congenital Syphilis. They were all members of the same family and showed Argyll-Robertson pupils and other symptoms of tabes. There was, however, no atrophy of the discs and the fields were normal. He also showed a

case of Occlusion of the Four Lacrymal Puncta, probably congenital. There was epiphora with dacryocystitis, and for this he had opened one of the occluded lower puncta.

Mr. J. B. LAWFORD showed an unusual case of Choroido-retinitis in a subject of hereditary syphilis.

Mr. G. W. ROLL showed a case of Localised Fundus Changes, probably of traumatic origin. The eye was injured in May last by being struck with a piece of iron. Two months later definite fundus changes were present. A foreign body was localised in, or just in front of, the sclerotic. There was seen to be a patch of atrophy close above the macula with pigmentary changes around it. He thought the foreign body, which was three millimetres long, had entered through the cornea, iris, and suspensory ligament, as the lens was clear.—Mr. A. W. ORMOND mentioned a similar case he had had in which after 10 days no wound was visible, although it was easily seen immediately after the injury.—Mr. R. W. DOYNE said that there was a black mark at the back of the lens which possibly was a scar.—Mr. W. LANG mentioned a similar case which he had watched for two years without deterioration of vision, and in the present case as everything was quiet he should be inclined to leave it alone.

Mr. J. H. FISHER showed a case of Mooren's Ulcer on the Cornea.

Mr. L. V. CARGILL showed a woman, aged 22 years, whose Sight had been Gradually Failing for about a year. The family history was good. Two years ago she suffered much from headache, and when first seen she was very anæmic, but an examination of the blood and urine showed nothing abnormal. The vision was  $\frac{6}{60}$  and J. 14. The changes consisted of numerous greyish-yellow spots on the choroid. There were no vitreous opacities and the vessels of the fundus showed nothing but perhaps slight dilatation.

Mr. N. BISHOP HARMAN showed a patient with a Badly Developed Eye with Ciliary Processes adherent to the Anterior Surface of a Shrunken Cataractous Lens. This was congenital.—Mr. FISHER said that about three years ago he had seen an almost identical case.

Mr. HARMAN also showed a simple and efficient Portable Refractometer.

## EDINBURGH OBSTETRICAL SOCIETY.

### *Spontaneous Rupture of an apparently Normal Uterus.—The Separation of the Placenta.*

A MEETING of this society was held on Dec. 11th, Dr. JAMES RITCHIE, the President, being in the chair.

Dr. R. MILNE MURRAY read a paper on a case of Spontaneous Rupture of an apparently Normal Uterus at the commencement of labour. After giving a description of the usual situation and various causes of rupture of the uterus he said that spontaneous rupture might occur in certain abnormal conditions of the uterus, such as the bicornuous uterus, the myomatous uterus, or in a uterus which had previously been the subject of a Cæsarean operation. Krukenberg had collected 13 instances of the last cause, and Rose and Mundé had recorded a case in which the uterus ruptured spontaneously in four successive pregnancies. Lastly, there was a very small number of cases on record in which rupture had occurred at the beginning of labour in a uterus of normal conformation and in which there was no gross complication. Such cases had been recorded by Ingersley, Hofmeier, and Professor A. R. Simpson. In the two first nothing abnormal in the uterus could be found, and the histological examination revealed nothing which could account for the accident. In Simpson's case the muscular fibres showed signs of fatty degeneration in a marked degree. To this group the present case belonged. The woman, aged 27 years, was pregnant with her fifth child. Her pains began about 11.30 P.M. and at 2.30 A.M. she sent for a medical man, to whom she complained of severe pain, especially at a spot midway between the umbilicus and the left anterior superior iliac spine. He could not hear the foetal heart and he noticed the tenseness of the tumour and its marked deflection to the left side. There seemed to be no contraction sufficient to account for the pain complained of. On vaginal examination there was no sign of any presenting part; the finger could not be passed through the os and the cervix was not taken up. On further examination the foetal parts could be felt at the upper part of the tumour with unusual distinctness; and it was thought on consultation to be most likely a case of extra-uterine gestation. When

Dr. Murray saw the patient she presented the appearance of one in a state of profound collapse. On vaginal examination under chloroform the finger, passed through the os, found the cervix only partially taken up; the lower uterine segment was empty and in the left side a rent in the wall could be felt through which the finger passed into the abdominal cavity. Abdominal section was performed and the foetus and placenta were extracted. The rent in the uterus involved the left upper region of the bladder. There was an alarming amount of hæmorrhage going on, both from the tear in the uterus as well as from the proximal end of the torn uterine artery. The uterus was removed and the rent in the bladder was closed by several fine catgut stitches. Owing to the state of the patient the operation was rapidly completed without any peritoneal toilet. The patient did very well till the thirteenth day, when her temperature rose and continued high till the sixteenth day, but fell soon after a copious discharge of pus had escaped from the vagina. The subsequent recovery was uneventful. The formation of pus was attributable to the use of imperfectly sterilised silk ligatures. Dr. Murray could find no cause for the rupture. To the naked eye the uterus presented no abnormality, and microscopically a portion of tissue taken from the end of the rent showed a perfectly normal structure without any suggestion of a fatty change. With regard to the variety of fluids, including meconium, which had escaped into the peritoneum, Dr. Murray thought that if the material was not septic the less the peritoneal cavity was disturbed by attempts at "cleansing" the better. When the matter was septic all means should be taken to prevent its entrance into the cavity; or if it had entered it must be removed at all costs.—Professor SIMPSON, Dr. D. BERRY HART, Dr. F. W. N. HAULTAIN, and Dr. J. HAIG FERGUSON made remarks on the paper.

Dr. J. M. MUNRO KERR (Glasgow) read a paper on the Separation of the Placenta. It had special reference to the information regarding the mechanism observed in cases of conservative Cæsarean section. He referred to eight cases on which he had operated; all the mothers recovered and all the children except one were extracted alive. In six the uterus was opened by the ordinary vertical incision and in two by the fundal incision after the method of Fritsch. In two of the former and in one of the latter cases the placenta was incised and had to be separated in whole or in part before the child was extracted; in the remaining five cases the placenta was situated on the posterior or postero-lateral wall.—Dr. HART, Dr. R. C. BUIST, Dr. MURRAY, Dr. W. FORDYCE, Dr. S. MACVIE, and the PRESIDENT discussed the paper.

Specimens were shown by Dr. HART, Dr. MURRAY, Dr. J. L. LOCKIE, and Dr. HAULTAIN.

**FORFARSHIRE MEDICAL ASSOCIATION.**—A meeting of this society was held on Dec. 5th, Professor D. MacEwan, the President, being in the chair.—Professor L. R. Sutherland sent specimens for exhibition at the meeting: (1) Metastasis in various organs in a case of Deciduoma Malignum; (2) Hæmorrhagic Pericarditis; (3) Papillomatous Ovarian Cyst, with Involvement of the Fallopian Tubes; (4) Tuberculosis of the Tongue; (5) Actinomyces in Human Liver; (6) Cancer of Colon, Perforation of Gut by a Fish-bone; (7) "Rachitic Rosary" in Rickets; (8) Aortic and Mitral Lesion in an infant, aged four days; (9) Superficial Gastric Erosion—Fatal Hæmorrhage; (10) Extreme Duodenal Stenosis from cicatrization of the ulcer; and (11) Recent Corpus Luteum and several specimens showing types of disease in animals.—Professor J. A. C. Kynoch read a paper on six cases of Abdominal Section for Pelvic Affections presenting points of interest. 1. A case of Repeated Ectopic Pregnancy in the same patient. 2. Repeated Ovariectomy. The first operation was complicated with pregnancy at the fourth month. 3. Repeated Ovariectomy within two years. 4. Repeated Ovariectomy; the first operation was complicated with pleural effusion. 5. Ovariectomy, illustrating the condition of pseudo-myxoma of the peritoneum. 6. Ovariectomy complicated with scarlatiniform rash. All recovered after operation.—Dr. J. B. Buist discussed several points brought out in the paper and spoke of the frequency of the scarlatiniform rash after child-birth. He agreed that such a rash after operation was due to toxæmia.—Dr. Halley referred to the frequency of such a rash in children after operation and mentioned two cases of

his own in which the rash appeared after the operation.—Dr. Whyte referred to the occurrence of a similar rash in some patients after treatment with opium.—The President spoke in favour of leaving the other ovary in ovariectomies if it appeared healthy, and said that he considered the rash which occurred in the puerperium was due to septic absorption.—Dr. Halley read a paper on the Surgical Treatment of Sciatica; in it he restricted himself to nerve-stretching. He referred briefly to its first introduction into this country and said that he did not consider it was now done often enough in cases of sciatica, giving some hospital statistics to support his view. He quoted the views of various authors on the effect and results of nerve-stretching. He considered that it was a very effectual form of counter irritation and pointed out the advisability of traction on proximal and distal ends of the nerve and of separating the adhesions as far as possible. Bloodless nerve-stretching was considered harmful without an anæsthetic. The notes of one case were given in support of this. Notes of six cases of the open method of stretching the sciatic nerve were given, in all of which the pain had been relieved and had remained away in one after it had existed for five years and in another for eight years. In one of the cases paralysis of the extensors of the ankle and peronei had followed and continued for three months but then seemed to be passing off. Dr. Halley concluded by expressing the view that nerve-stretching of the sciatic nerve should be done earlier in cases and if pains did recur nerve-stretching should then be performed on the branches.—Professor Stalker spoke in support of nerve-stretching in certain cases of sciatica. He considered it the most effectual form of counter irritation for so deep a structure as the sciatic nerve.—Dr. Foggie spoke of a case in which the adhesions had been excised in addition to nerve-stretching with most beneficial results.—Dr. G. W. Miller also spoke.—The President mentioned cases of improvement after acupuncture, and agreed that nerve-stretching should be adopted earlier in cases where other methods were found to be futile.

**LIVERPOOL MEDICAL INSTITUTION.**—The second meeting of the session of the pathological and microscopical section of this society was held on Dec. 12th, Dr. J. Hill Abram being in the chair.—Mr. F. C. Larkin showed a young man exhibiting the symptoms of Nasal Hydrorrhœa (cerebro-spinal rhinorrhœa). 24 days previously he had fallen 15 feet, striking his forehead first. Immediately after the fall there were slight bleeding from the nose and symptoms of concussion but never complete loss of consciousness. The hydrorrhœa was first observed when he began to get about, three weeks after the injury.—Mr. Chauncy Puzey and Dr. W. B. Warrington showed specimens of Multiple Sarcoma from a young man. In addition to a large axillary tumour there were secondary deposits in the kidneys, the mesenteric glands, and the pancreas. The fundus of the stomach was involved in a mass of about the size of the closed fist which had ulcerated into the viscus. Microscopically the growth was a lympho-sarcoma, some of the cells of which resembled giant cells, being large and multinuclear.—Mr. Douglas Crawford showed (1) a Salivary Calculus which had existed in the left duct of Wharton of a patient for 13 years without giving rise to symptoms until the last five weeks, when the submaxillary gland became swollen; and (2) (a) a Uric Acid Calculus weighing 144 grains removed suprapubically from a boy aged seven years, and (b) Three Calculi weighing 202 grains removed by the same route and from the same boy 18 months later.—Dr. R. J. M. Buchanan exhibited specimens of Pulmonary Calculi which had been expelled during paroxysms of coughing.—Mr. Rushton Parker showed the kidney of a female which he had removed by nephrectomy in the fifth month of pregnancy. On section the organ was plentifully studded with yellow nodules aggregated chiefly in the cortex, and evidently pyæmic. The patient aborted during the next two days and the placenta was removed under chloroform by Dr. T. B. Grimsdale. She continued in an infective state and died on the eleventh day. The foetus was macerating. At the necropsy the spleen, the liver, and the remaining kidney were found to be the seat of softening and cloudy swelling. There were a few chronic ulcers in the large intestine covered with adherent bile-stained lymph, but no clue could be observed, unless that were one, as to the pathological sequence of events or as to the cause of the infection of the right kidney. The upper part of its ureter was dilated and thickened, but no

explanation of this could be found.—Mr. E. E. Glynn exhibited specimens of Pneumococcal Meningitis associated with Lobar Pneumonia, and of Focal Necrosis of the Liver in early Typhoid Fever.—Mr. W. Thelwall Thomas exhibited (1) a Globular Piece of Lung, one inch in diameter, which was found floating in an empyema which had followed pneumonia as a sequel to typhoid fever (the patient recovered); and (2) an Ovarian Abscess Wall which had ruptured into the peritoneum, causing acute septic peritonitis. It was removed during operation for the relief of the peritonitis and the patient recovered.—Mr. F. T. Paul showed a recent specimen of Adeno-carcinoma of the Kidney. The specimens were discussed by the Chairman, Dr. Warrington, Mr. Puzey, Mr. Hamilton, and Mr. K. W. Monsarrat.—Sir William Mitchell Banks read a paper entitled "A Brief Résumé of our Present Position in Regard to Mammary Cancer." The paper was illustrated by lantern slides and microscopical and macroscopical specimens, and as it covered a wide field and presented many interesting and important points for discussion a resolution was passed adjourning the discussion to a special meeting for the purpose to be held in January, 1902.

**BRITISH GYNÆCOLOGICAL SOCIETY.**—A meeting of this society was held on Dec. 14th, Mr. J. A. Mansell Moullin, the President, being in the chair.—Mr. E. Stanmore Bishop described, and illustrated by lantern slides, certain Changes Occurring in the Endometrium of Uteri in which Fibro-myomata were present. The appearances seen seemed to justify certain conclusions, which were: (1) that the presence of fibro-myomata had an effect upon the endometrium of affected uteri; (2) that while still intra-mural they produced hyperplasia of the glandular layer; (3) that when sufficiently developed to exert pressure upon the lining membrane they produce disintegration of the deeper glands and of the interglandular substance; and (4) that when the growth was polypoid the endometrium over the polypus and also over the portion of the uterine wall opposed to it became reduced to a single layer of columnar ciliated epithelium which at points or areas of great pressure approximated to the squamous type. He then gave a demonstration, also illustrated by lantern slides and numerous microscopical preparations, of the condition of the arteries in the macroscopically normal tissue of uteri in which fibro-myomata had been found. The specimens showed progressive thickening of the tunica media and the irregular distribution of the hypertrophied coat around the arterial lumen. These appearances, which were seen in whatever direction the artery had been cut across, lent support to the theory propounded by Pilliet, Gottschalk, and other writers, that these tumours were due to hypertrophic changes in the muscular tissue in the walls of certain arteries. Mr. Stanmore Bishop explained upon this hypothesis the tendency of these neoplasms to be multiple, the formation of a capsule around them, the characteristic whorled appearance of their fibres, the increase of growth during pregnancy and corresponding decrease during involution, and the difference in consistence and rapidity of growth of tumours of the cervix and of the fundus. He finally indicated the effect which the acceptance of such a view must have upon their treatment.—Mr. J. H. Targett had examined sections of many uterine fibroids and he thought that there was abundant evidence of thickening of the muscular coat of the vessels and of their fibrous sheaths. After a time the new material became fibroid and almost devoid of nuclei. This degenerative change was very characteristic of uterine myomata and enabled their structure to be easily distinguished from normal uterine tissue. As regarded the endometrium, he had in some cases found hyperplasia especially affecting the stroma, while in others the endometrium had been thinned by distension and its glandular follicles had become disarranged or even obstructed at their mouths, causing retention of secretion and shed epithelium in their acini. He had never met with tubules lined with epithelium in the substance of a fibroid, and therefore did not think that these tumours commonly originated from congenital relics in the uterine walls, as stated by some observers.—Dr. Macnaughton-Jones cited cases to prove that there was strong clinical evidence in support of Mr. Stanmore Bishop's view.—Dr. Macnaughton-Jones demonstrated Some Recent Gynæcological Appliances and showed the following specimens: (1) Malignant (?) Ovarian Tumours with Myomata; (2) Sarcomatous Tumour of the Vagina; and (3) Adnexal Tumour causing Uncontrollable Vomiting. The last was a cyst of the left ovary containing sanguineous fluid.

**WEST LONDON MEDICO-CHIRURGICAL SOCIETY.**—The third meeting of the session (clinical evening) of this society was held on Dec. 6th, Mr. Alfred Cooper, the President, being in the chair.—Mr. C. R. B. Keetley and Dr. Saunders showed a case of Paroxysmal Neuralgia of the Trigeminal Nerve in which pain had been relieved by stretching and the excision of a portion of the two lower divisions of this nerve.—Mr. Keetley showed also a case of an Osteoplastic Resection for Malignant Disease of the Nasal Fossa.—Dr. Taylor showed a case of Congenital Abscess of the Clavicles.—In reply to remarks by Mr. W. McAdam Eccles, Mr. Lloyd, and Mr. Keetley he pointed out that though the sternal epiphysis showed some attempt at development there was no part of the sterno-mastoid attached to it; that the patient showed some signs of congenital syphilis which might be a factor in the production of the deformity; and that although possibly the nether limbs were more frequently the subject of congenital defects arrests of development were more serious and more profound, as a rule, when they occurred in the upper limbs.—Dr. Ball showed, for Dr. P. S. Abraham, a case of Lupus Erythematosus of the Face associated with Lupus Vulgaris of the Palate.—Dr. Chambers showed for Dr. Abraham a case of Nævus Linearis (so-called) affecting the Right Side of the Trunk.—Dr. Saunders showed a case of Pigmentation of the Skin in a boy, aged 13 years, probably Addison's disease. This affection had come on gradually in the last four months. The pigmentation was general, with accentuation over the region of the back of the neck, the axillæ, the groins and genitals, and over the prominent dorsal spines. It was least over the chest and the backs of the upper arms. The mucous membrane of the mouth was affected. The symptoms were debility, anæmia, and heart weakness, with occasional attacks of vomiting and diarrhoea. The boy had improved considerably in general health under treatment, after attention to the digestion, with cod-liver oil and iron, though the pigmentation had somewhat increased.—Dr. Grünbaum drew attention to two methods based on physiological observations which might assist in the diagnosis of early cases of Addison's disease. Langlois found that the ergographic tracings obtained from patients with diseased suprarenal glands were unique, in that the curve produced by joining the apices of the contractions fell very rapidly. This indicated a rapid diminution in power on the part of the muscle, this diminution being much more rapid in Addison's disease than in any wasting disease, such as advanced phthisis. Dr. Grünbaum had had the opportunity of confirming Langlois's observations. The other method was based upon the effects of the administration per os of suprarenal gland. The only cases in which Dr. Grünbaum had been able to measure any increase in blood-pressure were those of patients suffering from Addison's disease, but whether this was diagnostic of the disease he was not at present prepared to say.—At the second meeting of the society held on Nov. 1st Mr. McAdam Eccles read a paper on Some Points in the Pathology of Appendicitis, and a discussion followed.

**SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.**—A meeting of this society was held on Dec. 5th, Dr. C. H. Willey, the President, being in the chair.—Mr. Edward Skinner showed specimens from a case of Melanotic Sarcoma of the Liver.—Dr. D. Burgess read notes of the following cases: (1) A Gastro-Intestinal Form of Renal Calculus; and (2) Pernicious Anæmia.—Dr. S. White exhibited the following specimens:—1. Aneurysm of the Commencement of the Right Common Carotid Artery for which distal ligation of the carotid and subclavian arteries had been unsuccessfully practised, the patient eventually dying from exhaustion incidental to proximal ligation. The case was interesting on account of the absence of aneurysmal pulse, sphygmographic tracings taken from both carotids showing no appreciable differences. The aneurysmal tumour, which was of the size of a turkey's egg, caused no pressure symptoms beyond contraction of the right pupil, and there was entire absence of thrill and bruit. The patient was a retired soldier, aged 40 years, and had had syphilis. 2. Resection of the Transverse Colon and a Portion of the Small Intestine for a rapidly growing Malignant Tumour of the Omentum in a man, aged 24 years. The patient had made an excellent recovery, but as a number of infected mesenteric glands were unavoidably left speedy recurrence was anticipated. 3. An Excised Chronic Ulcer from the Stomach of a man, aged 52 years. The history dated back four years and the patient had become much emaciated and was no longer

able to work. The ulcer was situated at the upper and back part of the stomach near the pyloric end and measured an inch in diameter. It had almost eaten through the stomach walls and was surrounded by extensive adhesions. The patient had made a good recovery. A noteworthy feature in the case was the advent of alarming hæmorrhage after inflation of the stomach for diagnostic purposes, although previously there had been no hæmatemesis. 4. A Resection of Small Intestine for Round-celled Sarcoma that had produced obstruction. The patient was a female, aged 52 years. The operation was followed by death from shock.—Dr. J. Sorley read notes of a Personal Interview which he had had during the summer with M. Crôte, the founder of a comparatively recent method of treating consumption practised in Paris. The method consisted of the transfusion of a specially-prepared solution of formic aldehyde into the tissues of the body by means of a very powerful static machine. The method had at least a certain amount of probability as regarded its efficacy, and some of M. Crôte's principles had been confirmed by independent observers. A needless amount of secrecy, however, surrounded the nature of the formic aldehyde solution, and until this was published in full the method could not but be tainted with a suspicion of quackery. The examination and treatment of patients seemed to be conducted on sufficiently rigid lines, and the statistics were, if true, little short of marvellous. The treatment was in operation in Paris, Bonn, and New York.

GLASGOW SOUTHERN MEDICAL SOCIETY.—A meeting of this society was held on Dec. 12th, Dr. John Stewart, the President, being in the chair.—Professor Ralph Stockman showed a large number of lantern slides illustrative of clinical and therapeutic interest. The serious effects produced by lead poisoning on the various tissues of the body were well depicted. The constant growth of the connective tissue, the degeneration of the muscular fibres, and the hypertrophy of the coats of the blood-vessels as a result of the action of the lead were rapidly surveyed. In the same disease a photograph of the large intestine showed numerous well-marked contractions at different parts of its course; and pulse-tracings were given to illustrate the increase in the blood-pressure. By a series of slides the different stages in the preparation of anti-diphtheritic serum were brought under notice. Charts were thrown on the screen by which at a glance the beneficial effects of the antitoxin on the local throat conditions and on the pulse and respiration could be rapidly recognised. The injurious effects at times resulting from dressings containing weak solutions of carbolic acid were represented. In one case gangrene of the finger necessitating amputation was brought about by a 5 per cent. solution. In the opinion of Professor Stockman this unfortunate result was produced by the acid causing thrombosis of the artery and the absence in the finger of any collateral circulation. Members were reminded of the peculiar susceptibility to drugs in some persons by the exhibition of slides depicting appearances brought by small doses of cocaine, atropine, and iodine. Other photographs of general interest concluded the lantern demonstration and at the close members had the opportunity of viewing diagrams of various diseases and also some microscopical slides.—Professor John Glaister gave an address, accompanied by lantern demonstration, on the Life-history of the Parasites of Malaria.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—The third meeting of the session of this society was held on Dec. 11th, Dr. Barclay J. Baron being in the chair.—Dr. J. Michell Clarke showed the following patients: (1) A case of Lesion of the Pons; (2) a case of Amyotrophic Sclerosis; and (3) a case of Hereditary Cerebellar Ataxy. He also showed a specimen of Perichondritis and Necrosis of the Laryngeal Cartilages.—Dr. E. H. E. Stack, Dr. C. H. Walker, Dr. F. H. Edgeworth, Dr. T. Fisher, and Dr. P. W. Williams discussed the cases.—Dr. J. O. Symes and Dr. Newman Neild showed microscopical specimens of Blood from cases of Malaria.—Mr. J. Paul Bush read a paper (illustrated by diagrams) on a case of Gastro-jejunostomy.—Mr. C. A. Morton, Dr. R. G. P. Lansdown, Dr. J. E. Shaw, Dr. Clarke, and Dr. E. W. H. Groves spoke on the subject.—Mr. A. W. Prichard read notes on a case of Intussusception.—Dr. J. L. Firth and Mr. Bush commented on the case.—Mr. F. H. Rose read a paper on Kélène as a General

Anæsthetic.—Dr. Symes, Dr. Williams, and Mr. H. E. Harris remarked on the paper.

SOUTH-WEST LONDON MEDICAL SOCIETY.—A meeting of this society was held on Dec. 11th, Mr. John Gay, the President, being in the chair.—The President said that he had the pleasure to inform the society that, through the kindness of the governors of the Bolingbroke Hospital and the exertions of Mr. C. R. C. Lyster (the medical superintendent), the hospital was to be the future home of all their meetings. Dr. J. J. M. Dunbar then proposed and Dr. Mackintosh seconded the following motion:—

That the South-West London Medical Society desires hereby to express their grateful appreciation for the kindness and courtesy of the governors of the Bolingbroke Hospital in granting them the use of the premises of the hospital for the purpose of the meetings of the society.

A vote of thanks was also passed to Mr. Lyster, who replied.—Dr. A. E. Giles read a paper entitled, "The Diagnosis of Pelvic Tumours."—Several members discussed the paper and Dr. Giles replied.—A hearty vote of thanks was given to Dr. Giles for the paper.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Dec. 6th, Dr. Thomas C. Meggison, the President, being in the chair.—Dr. James F. Goodhart delivered the Purvis Oration, taking as his subject, "General Practice: an Original Research." After the oration a largely attended conversation was held.—Mr. J. J. Vezey, F.R.M.S., gave a demonstration of X-ray and High-Frequency Apparatus.—The President exhibited lantern slides of Continental Health Resorts.—There were also exhibitions of the following:—Messrs. Krohne and Sesemann, Surgical Instruments; Messrs. Callard and Co., Diabetic Foods; Messrs. Parke, Davis, and Co., Therapeutic Preparations; Messrs. Watson and Co., Scientific Apparatus.

## Reviews and Notices of Books.

*A Practical Guide to the Administration of Anæsthetics.* By R. J. PROBYN-WILLIAMS, M.D. Durh., Senior Anæsthetist and Instructor in Anæsthetics at the London Hospital; Lecturer on Anæsthetics at the London Medical College; Assistant Anæsthetist at the Royal Dental Hospital of London. Illustrated. London: Longmans, Green, and Co. 1901. Pp. 211. Price 4s. 6d.

THE writer of this book has set himself to instruct students and he has performed his task well. It is important that such teaching should be dogmatic and clear; that directions should be at once concise and lucid; and that only essentials should be presented to the learner, although his attention should be directed to the importance of elaboration, to be afterwards undertaken. Dr. Probyn-Williams has, we think, satisfied these desiderata very successfully. After some "general considerations" the reader is introduced to the Difficulties and Dangers of Anæsthesia, this section being followed by chapters on Nitrous Oxide, Ether, Chloroform, and Local Anæsthesia. The general considerations give a very fair account of the preparation for the anæsthesia and of the patient as well as of the course of, induction of, and recovery from, the anæsthesia. In this connexion it may be said that in ordering washing-out of the stomach *before* giving the anæsthetic in cases of operations upon that organ we think a caution might have been added that such a proceeding produces grave and even fatal shock in very asthenic cases. Nor are we in accord with Dr. Probyn-Williams when he says that a "pin-point" pupil often heralds vomiting (p. 21). The treatment of the patient after anæsthesia is admirably given and is the more valuable as this important matter is too commonly neglected. On p. 52 the treatment of syncope is liable to be misunderstood by the inexperienced. Nélaton who introduced inversion as a means of restoring circulation in the vessels of the brain was careful to limit it to cases of true circulatory failure. If the heart is over-distended from pulmonary engorgement inversion

has always been held to be improper treatment, but this does not lessen the value of inversion in appropriate cases. The author rightly insists that respiratory enfeeblement commonly coexists with circulatory depression and points out that artificial respiration, whether accomplished by Wood's method of pulmonary perfusion or by what is more commonly practised in this country—viz., the Silvester-Bain method—will by itself tend to steady and to assist the flow of blood through the lungs and systemic vessels. Inversion at its best is in cases of sudden fainting often unassociated with overdose of the anæsthetic, for in these there is no question of engorgement of the vessels of the lungs, and especially is this the case in the instance of children.

The chapters dealing with General Anæsthesia describe the more usual methods of administering nitrous oxide, alone and mixed with air or oxygen, or ether given alone or in sequence with nitrous oxide or chloroform. The teaching is sound and the student is not confused by a multiplicity of apparatus or of methods. In speaking of the continuous administration of nitrous oxide by Coleman's nasal-cap method it is said that the most suitable cases are those in which little blood is flowing, such, for example, as operations for devitalising several teeth. Dr. Probyn-Williams, while advocating the use of "gas" and "gas" with oxygen in minor surgery, rightly, we think, points out that for operations lasting more than a few minutes such a form of anæsthesia has insuperable objections. Ether may be given to children by an open method, as Dr. Probyn-Williams very properly points out; but it is a question, we think, that lends itself to discussion whether any particular apparatus, as such, alarms a child. It is the ether, the fright caused by the expectation of the "unknown," which really demoralises the little patient, and probably that method which achieves unconsciousness with the greatest rapidity is the one which gives the child the minimum of discomfort. The description of ether anæsthesia is very carefully and well written. *Inter alia* the common error is exposed that this form of narcosis necessarily involves cyanosis—i.e., incomplete respiration. Again, the chapter which details the administration of chloroform is admirable with, perhaps, the one exception that on p. 153 we are told that "struggling must be met by an increased dose of chloroform with a still freer supply of air." Unless this rule is more fully explained it might, we think, lead the youthful chloroformist into the grave error of allowing the patient to inhale chloroform freely while unconscious struggling is going on. The saving clause, "with a still freer supply of air," may easily under such circumstances be neglected or not appreciated as being the most important part of the rule. Dr. Probyn-Williams indicates the dangers of the various "safe" methods which unfortunately are at present vaunted by instrument-makers, the whole essence of which consists in the dangerous substitution of a mechanical for an intelligent administration of chloroform which is at once the safest and most dangerous of all general anæsthetics. The use of Harley's mixture—the A.C.E.—is fully set forth in these pages and the principles which should guide the administrator are given clearly and emphatically. That this mixture ought to be prepared from definite ingredients as insisted upon by Martindale might, we think, be adverted to in subsequent editions. The concluding chapter consists of an account of the various plans in vogue for producing local anæsthesia. The original solutions of Schleich, which contain morphine, are usually, since the publication of the papers of Dr. Braun and Dr. Heinz, replaced by solutions of eucaine  $\beta$ , and probably this method is superior to those both of Reclus and Schleich. As a whole, Dr. Probyn-Williams's book may be accepted as a successful solution of the difficult problem involved in any attempt to marshal the facts of anæsthesia in such a way that the average student can master them and apply them in

practice. The illustrations, although in some instances rather crude, are mostly original and render the descriptions of apparatus more easy of comprehension. The book is of convenient size and well printed and is provided with a useful index.

*Lehrbuch der Allgemeinen und Speciellen Pathologischen Anatomie für Aerzte und Studierende. (Text-book of General and Special Pathology for Practitioners and Students.)* By Dr. ERNST ZIEGLER, Professor of Pathology at the University of Freiburg. Tenth edition. Vol. I. Jena: G. Fischer. 1901. Super royal 8vo. Pp. 810, with 586 illustrations, some in colours. Price 12 marks.

TWENTY years have elapsed since the first appearance of Professor Ziegler's text-book, and the fact of a new edition having been called for on an average every two years throughout this period bears striking testimony to the value placed upon the book by students of pathology. The present edition, says the author, is the result of 22 years' almost unremitting labour, and we can realise how great the work has been when we consider the strides which the subject has made within this period and observe how closely the book has followed each advance in knowledge. The author's object has been to present the more important contributions of the nineteenth century to our knowledge of pathology in such a form as to prove useful both to practitioners and students, and we may say that in this he has been eminently successful. The large size of the volume (we must admit that it looks a trifle ponderous), by which some may be daunted, is due partly to the extent of ground which has to be covered, but mainly to its wealth of illustrations, not to any lack of conciseness in the text, for the author shows remarkable skill in extracting the important from the unimportant and placing it graphically before his readers. Several changes in the ninth edition will be noticed. The first three sections—on External and Internal Causes of Disease, on the Spread of Morbid Processes in the Organism, and on Immunity—have been rewritten and simplified. These chapters form a useful introduction to the rest of the book. From them the student may obtain a bird's-eye view, as it were, of the whole field which is subsequently to be examined in closer detail and he will thus be spared the feeling of helplessness which is frequently felt by the beginner when he approaches the study of so vast a subject as pathology. The author's views on inflammation have undergone no change, while in the matter of the etiology of certain new growths he has been influenced by recent suggestions as to their probably parasitic nature only to a slight extent, the "not caused by infection" of the former edition having been changed to "probably arising spontaneously." Even this concession, we are informed, must not be taken to indicate any doubt in the author's mind as to the correctness of the earlier statement; it is made merely with the view of somewhat toning down its uncompromising dogmatism. The chapters on Parasites, Animal and Vegetable, have been considerably enlarged and closer attention has been paid to this branch of the subject than might perhaps have been looked for in a work on general pathology. Especially is this the case with some of the pathogenic micro-organisms, such as the streptococcus pyogenes, staphylococcus pyogenes aureus, and the tubercle bacillus. However, no one who has read the description of them is likely to quarrel with the author on this account. The illustrations with which the volume is lavishly supplied are excellent, while the coloured ones, particularly in the chapters which we have just mentioned, are really beautiful. To each section is appended a carefully selected list of references to the literature. These lists the student who wishes to widen his knowledge in any particular direction will find very useful and they will be specially appreciated by anyone who has worked his laborious way through the miscellaneous

mass of references given by many text-books. The volume before us shows us a great advance on the eighth edition, from which the latest English edition was made, both in text and illustrations. The former has in many places been much improved by being re-arranged, while the number of the latter has been increased from 458 to 586. The present edition more than maintains the standard reached by its predecessor and in saying this we accord it high praise.

*A Text-book of Pharmacology and Some Allied Sciences.* By TORALD SOLLMANN, M.D., Assistant Professor of Pharmacology and Materia Medica, Western Reserve University, Cleveland, Ohio. London and Philadelphia: W. B. Saunders and Co. 1901. Pp. 894, large 8vo, Illustrated. Price 16s. net.

WE should have thought that there were enough text-books on pharmacology and allied subjects already in the market. Many, if not most, of them are mere compilations and contain little or nothing of the results of original research. Dr. Sollmann does not lay claim to much originality, but we may give him credit for a new arrangement of much old matter. The book before us is a curious mixture of scientific theories and pieces of practical advice. The volume gives evidence of much laborious reference to standard works, and under each heading is to be found a large number of details, interesting enough in themselves it may be, but of no particular service to the practitioner of medicine. The illustrations are well executed, but mostly unnecessary, including as they do pictures of glass measures, burettes, flasks, retorts, and the like, all objects which the student will be familiar with from the first day which he spends in the laboratory. Other illustrations are those of sphygmographic and other curves which seem a little out of place in this book. "The subject of materia medica is a vexatious one in medical teaching from the difficulty of deciding how much matter should be included," writes the author in his preface. "This is still more true of a text-book intended at once for study and for reference. I have aimed to limit the information to that which is likely to be of actual use in prescribing." We do not think that the author has been very successful in this aim, for there are far more details in some places than are in any way necessary or desirable.

A word of praise must be accorded for the careful preparation of the index of contents; it is full of repetitions and cross-references, which make the work of reference simple enough. After the name of each drug are several page-numbers, but only one of these is in bold-faced type, and that one refers to the main mention of each topic. The work is full of chemical and biological experiments and the effects of drugs on frogs and on mammals are frequently mentioned.

Part I. of the volume contains 126 pages and deals with the work of the dispensing chemist. Part II. is devoted to pharmacology, materia medica, and therapeutics, and includes a certain amount of toxicology. To give the intending buyer an idea of the arrangement of material we will refer to a chapter on the "ion" action of soluble salts. The theory of "ion" action is first discussed, then the "ion" groups are dealt with in turn—first, the sodium, potassium, and ammonium groups, then those of the haloid group. Under the heading "The Bromide Ion," for example, there is first a description of the general action of the "ion" itself, then an explanation of "bromism," then follow paragraphs on excretion, therapeutic uses, and pharmaceutical preparations. The author recommends the use of bromine preparations in cases of "over-action of the brain," and the consequent worry and sleeplessness, but states that bromides are of no value for the relief of pain and that they should not be used as hypnotics.

Part III. of the volume contains 42 pages and is devoted to practical exercises in chemical testing, fermentation

experiments, and experiments on frogs and mammals. Between this part and the index are to be found an appendix containing methods of analysing the causes of pharmacological actions and a reference table of drugs, their chemical formulæ, solubility in water and alcohol, and their doses in apothecaries' and metric systems according to the American Pharmacopœia. This last is a useful table for reference. It has been adapted from the United States Dispensatory and Coblentz's "Pharmacy."

Carefully as this work has been prepared, undoubted as is the large amount of information which it contains, we do not feel inclined to recommend it to the practitioner of medicine who may be on the look-out for a really serviceable book on drugs. Too much is attempted, and the book is consequently neither a complete account of therapeutic measures nor yet a work for thorough reference with regard to the chemistry or botany of medicinal agents.

*Report on Sanitary Measures in India in 1899-1900.* Vol. XXXIII. Presented to both Houses of Parliament by command of His Majesty. London: Printed for His Majesty's Stationery Office by Darling and Son, Limited. 1901. Pp. 262. Price 2s. 1d.

INDIA, as everyone knows, is a very big and densely populated country and the official reports that come from it are very numerous and some of them voluminous. It is, therefore, essential that they should be carefully sifted and considerably abridged in this country to fit them for the information of Parliament and of those interested in our great dependency. When we consider all the labour and ability displayed in India and in this country in their production it is lamentable to think of the waste of energy involved, for while some of the reports only concern a few of the Indian official classes, others merit far more and much wider attention than they receive. Those reports which deal with the public health, vital statistics, and the progress of sanitary and medical science in India are from time to time revised, condensed, and edited in the India Office of this country, and the results are published periodically. Under the above title we have the last published report of a series containing a great deal of varied information, drawn up with great analytical skill, and couched in a clear and terse style of English. We have anticipated the publication of some of its contents when reviewing the excellent report of the Sanitary Commissioner with the Government of India for 1899. We need not, therefore, dwell upon such subjects as the health of the European, and native armies, jails, and general population of India, and the diseases which have been prevalent. We shall confine ourselves to a few, and but a few, points of interest.

The report does not deal exclusively with the statistical, sanitary, or epidemiological sides of disease, but whenever required for the explanation or elucidation of a subject it touches upon pathological and bacteriological points also. At page 47, for example, the bearing of Dr. Horton-Smith's Goulstonian Lectures for 1900 and other contributions to the literature of enteric fever on its scientific side is described. Reference is made, in speaking of tropical fevers, to a bacillus coli form of fever, to enteric fever and dysentery, to second attacks and the periods of incubation of enteric fever, and the cause of relapses. At page 143 there is a brief sketch of the progress made in the investigation of Indian fevers and the new field of parasitology which has been opened out, and at page 150 the facts connected with enteric fever and preventive inoculation in India in 1899 are set forth. The remarks on famine and the birth-rate and the physical and social conditions which promote or retard the comparative fecundity of the Indian peoples are summed up and commented upon in an interesting and instructive manner. The section of the report devoted to the consideration of the history of

the chief diseases—cholera, fevers, plague—and the chronicle which is given epitomising recent discoveries and observations, with their bearing on the many still unsolved problems relating to the etiology and epidemiology of these diseases, strikes us as being very well done. Assuming that these reports are drawn up and compiled by some non-medical official at the India Office from the mass of publications and documents sent home by the Indian Government we may fairly credit him with great discrimination in selecting his material and congratulate him on his ability and skill as a *précis* writer.

#### CHRISTMAS BOOKS.

From Messrs. CHATTO AND WINDUS we have received the following books:—1. *Tales of a Dying Race*. By Alfred A. Grace. 1901. Pp. 250. In this volume are related short stories of the Maoris, and many of them first saw the light in the pages of *The Bulletin*, Sydney, New South Wales, in the *New Zealand Triad*, and in the *Dunedin Star*. Many of the stories are prettily narrated, and describe the Maoris in times of peace and war, love and hate. This book will well beguile many an idle half-hour. 2. *Three Men of Mark*. By Sarah Tytler. 1901. Pp. 334. Price 6s. In this volume is told rather an uninteresting story, without much plot, concerning an elderly Scotch spinster and her three brothers—the “three men of mark.” The lady kept house in the quiet home of the Stewarts at Yetts. To this home the more distinguished brothers come on visits. The book, if somewhat monotonous reading, contains a careful description of Scottish home life and interests. 3. *A Sower of Wheat*. By Harold Bindloss. 1901. Pp. 373. Price 6s.—A powerful story, well written, of Canadian life. The hero, Ralph Crosfield, arrives in Canada with only a capital of £100, and after many difficulties becomes the owner of a large property and marries the daughter and heiress of a retired officer. 4. *Told by the Taffrail*. By Sundowner. 1901. Pp. 311. Price 3s. 6d.—We are informed by the author that these stories have been “thrown together” during the course of a journey through the Austral colonies, the Eastern and Pacific seas, and South and Central America. Many of them have appeared already in the daily and weekly press. They are well written, thoroughly interesting, and will probably be widely read. 5. *Only a Nigger*. By Edmund Mitchell. 1901. Pp. 351. Price 6s.—Readers will find this a lively and exciting story with plenty of thrilling incidents and adventures. It is a tale of two friends, one an Englishman, the other a Hindoo, who are respectively in love with two English sisters. For the sake of his friend and to shield the girl he loves from grief the Hindoo at much danger to himself seeks to save his friend's life which is threatened by a secret society of which the latter is a member. The details are well planned and the subsequent adventures prove exciting. The book is neatly and attractively bound and the reader will find much interest from cover to cover.

Messrs. BLACKIE AND SON have forwarded to us the following:—1. *Nonsense! Nonsense!* Written by Walter Jerrold and pictured by Charles Robinson. 1902. Pp. 66. Price 6s.—The book consists of “nonsense rhymes” and suitable illustrations. The rhymes, however, are so dull that no self-respecting child will ask for them to be read to him twice. The pictures are striking and of a fiery “bluggy” hue calculated to delight any number of young Budges and Toddlies. It is true that sometimes a stupid “grown-up” has to gaze at a picture for some moments before he can recognise what the big red blob on the page represents, but then, of course, much must be forgiven to the benighted beings of the nineteenth century. 2. *With Roberts to Pretoria*. By G. A. Henty. 1902. Pp. 384, 12 illustrations. Price 6s.—The hero of this story, an English lad who went to South Africa shortly before the outbreak of war in order to make his fortune, joins

a colonial regiment and early proves himself to be an exceptionally clever scout. He takes part in the series of battles that end in the disaster at Magersfontein, is captured and imprisoned at Pretoria, but escapes in time to fight at Paardeberg and to march with the victorious army to Bloemfontein. While the troops are delayed at this place he rides with Colonel Mahon's column to the relief of Mafeking and accomplishes the return journey with such dispatch as to be able to join in the triumphant advance to Pretoria. The tale is well told and will delight boy readers. 3. *Carbineer and Scout*. By E. Harcourt Burrage. Pp. 240. Price 2s. 6d.—This is one of the many story-books inspired by the struggle in South Africa. Hugh Dunstan and Cyril Johnstone are good examples of their class—i.e., the youthful hero. Although they have a large share of luck they do not perform impossible feats after the manner of Jack Harkaway.

## Looking Back.

FROM

THE LANCET, SUNDAY, DEC. 21, 1903.

COPENHAGEN, Nov. 18.

Dr. HERBOLDT, of this place, has just published an account of an extraordinary pathological case, which is attested by thirty-four physicians. A young Jewess, of delicate constitution had enjoyed a good state of health up to the age of fourteen years. At this time she began to suffer excruciating pains, which continued for eighteen months, and in the course of this period there were extracted from different parts of her body, at intervals of several days, weeks, and months, 273 needles! Some time after about a 100 more came out from a tumour in the shoulder which was attended with violent pain, and symptoms which threatened her life. They were for the most part sewing needles, but broken, without heads or points, and almost all of them black and rusty. Three pins were found among them, which were still bright, and one of the kind commonly used for the hair. In his statement, the doctor has described with precision the parts of the body from which they were extracted, but he has not offered any conjecture as to the manner in which they could have entered the body of this young person. He promises another paper on the subject, in which we trust he will satisfy the curiosity of the public.—*Journal des Debats*  
*Credat Judeus Apella!!!*

#### ARMY SURGEONS, AND ASSISTANT SURGEONS.

NOTICE has been given to the army surgeons, and assistant surgeons, on half-pay, that their services are likely to be soon required. The new levy is to be raised by beat of drum; and orders have been issued, with a view to the expeditious raising of the men, for the officers employed to repair to those parts of the kingdom, in which they may be supposed to possess the most influence.—*Courier*.

#### ST. THOMAS'S AND GUY'S HOSPITALS ANNIVERSARY DINNER.

The Practitioners who have been educated at St. Thomas's and Guy's Hospitals, and the Gentlemen now attending those Institutions, will dine together on Thursday, the 8th of January next, at the Freemason's Tavern, Great Queen-street, Lincoln's Inn-fields.

BENJAMIN TRAVERS, Esq., F.R.S. in the Chair.

Stewards.

Dr. Roots.  
Frederick Tyrrell, Esq.  
John F. South, Esq.  
George Browne, Esq.  
J. A. Gillham, Esq.  
Tobias Brown, Esq.

Dr. Bright.  
Robert Kent, Esq.  
William Gaitskell, Esq.  
S. H. Sterry, Esq.  
John Prior, Esq.  
James Paty, Esq.

Dinner on Table at Six o'clock precisely.—Tickets, one guinea each, to be had, on or before Saturday, the 3d of January, at the Bar of the Tavern; and Laundry's, St. Thomas's-street.

# THE LANCET.

LONDON: SATURDAY, DECEMBER 21, 1901.

## Public-house Reform.

IT is generally admitted that many of the public-houses in this country are neither regulated nor arranged in accordance with the best interests of those who frequent them. During the last few years efforts have been made to secure improvement in this respect by providing inns which are carefully looked after by committees consisting of people whose chief wish and aim it is to change the existing state of things. Prominent amongst those who have been active in this good work are the Bishop of CHESTER, Earl GREY, Major H. J. CRAUFURD (who is chairman of the Committee of Management of the People's Refreshment House Association), and Colonel Sir COLIN SCOTT MONCRIEFF, K.C.M.G. (the chairman of the executive council of the same association). At the present time this company has 19 inns under its management. Of these the first was taken over in the year 1897. It is situated at Sparkford, Somersetshire, and is owned by the Rev. F. S. BENNETT. In the following year inns at Hoar Cross, Burton-on-Trent, and at Tunstall, Wickham Market, belonging respectively to the Hon. Mrs. MEYNELL INGRAM and to the Hon. W. LOWTHER, were added to the list. In the year 1899 three more houses were obtained, in the year 1900 seven, and during the present year six have been taken. From this it is seen that the work of the association has gradually extended, and it has been carried out in parts of the country situated at great distances from one another. The aim of the association has been "to promote the efficient management of public-houses in the interests of temperance." The manager of each inn is paid a fixed salary; the business has proved remunerative, a dividend of 5 per cent. is paid to the shareholders, and the surplus is devoted to public purposes.

A small and purely local enterprise, the Kelty Public-house Society, Limited, has also been most successful. It was registered in May, 1899, under the Industrial and Provident Societies Act (1893) and has a capital of £1138 10s. The society owns one licensed house. By the rules of the society the maximum dividend payable is 5 per cent. The surplus profits for the year 1900 were devoted in part to the support of a local library and in part to the maintenance of a district nurse. Arrangements have also been made for the formation of a bowling-green and a pavilion in the village. The Hill of Beath Tavern may also be quoted as a remarkably successful venture. The company which owns this inn is managed by a committee of miners. The surplus profits realised during the last five years have been spent in lighting the village with electricity, in forming a bowling-green, and in providing an institute with reading-room, billiard-room, and library. The committee of management of the inn believe in early closing. They think that "a public-house is no place

after 9 P.M. for a man who has to put in a good day's work on the morrow." It seems a little hard that no one shall have cakes and ale after 9 P.M. because the committee are so virtuous. Public-houses, it may reasonably be contended, should be for the use of the public and should be compelled to supply good food and drink at all reasonable hours.

The legitimate complaints which respectable members of the public have against the existing condition of things are (1) that it frequently happens that food is not supplied in public-houses; (2) that when it is supplied it is usually bad in quality and excessive in price; and (3) that the drink supplied is often bad and the price excessive. Now, in regard to the question of food, it is a monstrous shame that every licensed house should not supply it at prices which are reasonably low. Most of the railway refreshment rooms are scandalously at fault in this matter. The bad quality of the alcoholic liquors sold in country places is often due to the fact that one brewing firm has a practical monopoly of a whole district and the unfortunate inhabitants are under existing conditions left to its mercy. Practical public-house reformers usually agree that the manager of an inn shall not derive a pecuniary benefit from the sale of intoxicating drinks, but some of them think that they should be allowed to get a commission on the sale of food. Should this payment be taken from the profit of the food it appears, however, that the customer would by no means benefit by such an arrangement. The societies which have been referred to above seem to obtain enormous profits. It is not very evident that it is to the interest of their customers that so large a proportion of the profits should be bestowed on libraries and other extraneous objects. It would possibly be more to the interests of the people chiefly concerned if the profits were reduced by supplying customers at a less extravagant price. This contention does not appear to have the support of the philanthropists who have been the pioneers of a most useful work. We recommend it to their earnest consideration.

We have lately received a report of an association called the Central Public-house Trust, together with a request that we should authorise the secretary to add our name to the list of members. The president of the society is Earl GREY, the Bishop of CHESTER is one of the vice-presidents, and the executive committee consists of the chairman, Major CRAUFURD, and Colonel Sir COLIN MONCRIEFF, Major-General the Hon. HERBERT F. EATON, Mr. W. CECIL HARRIS, the Hon. ARTHUR STANLEY, M.P., and Mr. E. TENNANT. The association has its chief offices at 114 and 116, Victoria-street, Westminster, and a City branch office at 71 and 72, King William-street, London, E.C. The report says that "the Central Public-house Trust Association in its present form will have completed its work when it has laid the foundation of a public-house trust company in every county." The association invites subscriptions and donations. It publishes a balance-sheet which contains the following note: "There are liabilities, the amount of which has not been ascertained, in respect of secretary's salary, further printing, and the publication of the accompanying report and sundry other expenses." We should be glad if the executive committee would supply some information to elucidate this note. Do not the committee know the salary of

their secretary? Do not the committee get an estimate for printing before they give an order for it to be done? Do the committee consider it necessary to have two expensive London offices? And if so on what grounds? The officers of the association are, we firmly believe, thoroughly in earnest and desirous to do good in a matter of the greatest public interest which needs their help, and we think that they will see the importance of the questions to which we draw their attention and that they will admit that a successful business cannot be carried on without ordinary business precautions. The successful ventures which have hitherto been started have, as a rule, if not always, been either under the direct or indirect influence of a benevolent local autocrat or have been managed by men of business who have been fully acquainted with the wants and wishes of the inhabitants of the district in which the work was carried on. Their success has, no doubt, been due to their adaptation to local requirements.

The formation of these associations and their management have given rise to feelings of great anxiety in the minds of some. In a letter which was printed in the *Times* of Nov. 26th Sir EDWARD FRY expresses his regret that many of the trusts pay an interest of 5 per cent. to the shareholders, and he fears that the shares may be held by wealthy men, even "perhaps by wealthy brewers," and such shareholders, he fears, would care nothing for the cause of temperance. He thinks, moreover, that there is a probability "that attempts will be made by enterprising brewers and distillers to push the sale of their goods by bribing the managers of the reformed public-houses by means of a percentage on the sales." It may be inferred from this outspoken expression of misgiving that Sir EDWARD FRY has little faith in the honesty of the managers of trust public-houses and little confidence in the reality of the supervision which will be exercised by the directors of the companies. One point to which Sir EDWARD FRY calls attention must be specially alluded to. He insists that it will be a serious matter if justices of the peace become shareholders of the trust companies, as they would, of course, in that case be disqualified to act as licensing magistrates, and therefore the number of those who keep a watchful eye on the granting of licences will consequently be lessened. This is a fact which should be considered in all its bearings. Sir EDWARD FRY views with anxiety the application of some of the profits of the Hill of Beath Tavern, to which allusion has already been made. The "surplus funds" ought not, in his opinion, to be spent "in the immediate neighbourhood of their place of origin." Indeed, he is quite sarcastic on the matter, and says, "into what good things the people of the Hill of Beath will drink themselves in the future it will be curious to observe." Sir EDWARD FRY entirely agrees with the Bishop of CHESTER and with Earl GREY that the present state of public-houses is open to improvement, but he sees great danger in their proposed method of affecting it. It does not appear to have occurred to any of the distinguished people who desire to reform public-houses that the interests of those who use them should be primarily considered. The chief causes of differences of opinion amongst them usually have regard to the disposal of the large profits derived from the customers.

## Medicine and the Kitchen.

OF the arts which may be reckoned ancillary to that of medicine there is none probably which is so neglected by practitioners of medicine as that of cooking. Most medical men regard the kitchen as beneath their notice and would scout the idea that any special training in its materials and its methods might be of service to their professional powers and usefulness. Such an attitude of mind is as unwarranted as we believe it to be injudicious. Not only are there very many substances which are common to the kitchen and to the dispensary, a knowledge of which, therefore, is justified by their presence in one if it does not indicate an acquaintance with the other, but, moreover, rightly regarded, the kitchen and the cook play almost as important a part in attaining the aims of the medical man as do the druggist and the dispensary. With regard to both the physician is in the position of directing steps that can only be satisfactorily taken by loyal performance on the part of his subordinates. At the present day, when medical education is so largely scientific and theoretical, to an extent which if in some directions highly beneficial is in others certainly detrimental to the practical value of a practitioner's powers, an intimate acquaintance with the contents of a dispensary and the knowledge of how most efficiently to employ their various combinations may be sought in vain among a large proportion of highly educated and skilful medical men. As regards the humbler offices of the kitchen such knowledge is to be found at even wider intervals. Yet it is obviously of the greatest importance that if a physician orders a medicine he should be able to tell that it is duly dispensed. This cannot be unless he could dispense it if necessary himself, and conversely, a man familiar with dispensing will have far wider powers and more ingenuity and will apply drugs with more minute efficiency than one who prescribes without any such intimacy with the materials which he is recommending. A similar argument may certainly be applied to the products of the kitchen. Yet, if a large number of medical men may claim familiarity with drugs and the modes of dispensing them, few, we imagine, will assert an intimacy with the methods of the kitchen, or even to any large extent with materials which are used in it and the daily use of which they may have many times recommended. No medical man would ignore the importance of diet both in health and in disease, and the cook may well be regarded as a chief officer in the service of preventive medicine. It is, no doubt, in the daily provision of wholesome digestible dishes that the main function of the kitchen lies. No medical man nevertheless can afford to neglect its aid when he is reckoning up his therapeutic resources. More particularly to-day when the use of animal extracts in medicine has become so prominent should the importance of the kitchen be duly recognised. We do not hold the belief of an old writer, quoted in Dr. W. T. FERNIE'S "Kitchen Physic," who says that "the practitioner has only to direct such food as may contain the particles that his patient may stand in need of. For example, are the kidneys diseased? Then let him prescribe stews and broths made of ox-deer and sheeps' kidneys. Asthmas require dishes prepared from the lungs of sheep, deer, calves, hart, and lambs. Are

the intestines diseased? Then he should order tripe, boiled, fried, or fricasseed. When this practice has become general we shall be able to remove every disease incident to the human body by the assistance of the cook only." This writer evidently did not underrate the aid of the kitchen. Unfortunately, the art of therapeutics is no such simple affair as this. The recently proven value of the thyroid gland, however, in the treatment of myxœdema, to take only one striking instance, should lead us to take a close interest in the help that substances which may be most suitably prepared in the kitchen are able to afford us in the treatment of disease, and not to regard the kitchen simply as a place from which the provision of healthy food for healthy persons is all that can be desired or obtained.

If only on historical grounds, medical men should be interested in foodstuffs and their preparation. From the early times when the functions of priest and physician were united in the same man, and when votive offerings and therapeutic agents were alike prescribed and dispensed by his hands, the association of the culinary and therapeutic arts has been a close one. There is a fund of interest and of information in the old accounts of the various properties and powers with which writers from the earliest times invested different articles of diet. Thus, PLINY tells us that "CATO thinks that after eating hare sleep is induced, but the common people suppose that after such food the body is more lively and gay for nine days; this may be only an idle rumour, but, still, for so widespread a belief there must be some foundation." Whether there is any true foundation for such a belief or not an investigation into the exact chemical properties of flesh of various animals and into such articles of diet, for instance, as shell-fish, which are known to have peculiar effects upon certain people, would not only be of great interest but might lead to results of great therapeutic value. Such chemical work as this is a most fitting direction in which to turn some of the efforts of clinical laboratories such as are sure in the future to be more and more extensively employed in connexion with all large general hospitals. There are many widespread beliefs and theories with regard to the effects of different foodstuffs in health and disease. Exact knowledge on such points is scanty. We cannot doubt that in attempting to enlarge and to define it, direct or indirect results of importance and utility would be obtained. Why, for instance, are tomatoes in the popular mind so widely associated with the spread of cancer? We have no grounds whatever for believing the idea to have any reasonable foundation. Yet how much do we know of the special constituents of the tomato? Has it any therapeutic properties? Is it, as a matter of fact, particularly prevalent where cancer is especially common? Such questions and their solution are a natural adjunct to intelligent medical interest in the kitchen, and we have mentioned merely the crudest and most obvious of the many problems, therapeutic and pathological, that the kitchen suggests to us if we honour it with our attention.

There is another point of view from which the cook may be brought to the aid of the practical physician. Supposing that experiment were to show that drugs which now are used only in formally prescribed mixtures or pills were capable of

introduction into the more welcome output of the domestic kitchen, how grateful an assistance might we obtain. It is often difficult when a medicine has to be taken frequently and over long periods of time to be sure that the patient does not grow careless or forgetful. If, however, instead of taking his draught before, or his pill after, his daily meals, that draught or that pill were, without altering the taste of the dish and without losing its own efficacy, combined with the patient's dinner instead of preceding or following it, we can imagine a far more certain acceptance on his part, and the physician's orders would be more consistently carried out by connivance on the part of the cook than they are with the coöperation of the chemist. Such a relegation of the dispenser's duties to the hands of the *chef* can only be achieved by familiarity on the part of the medical man with the work of both his subordinates. With the work of one he is, perhaps, fairly cognisant, with that of the other we strongly recommend him to become more intimately acquainted.

## The University of London and Preliminary Scientific Education.

At a meeting of the Senate of the University of London held on Feb. 27th, 1901, the following motion was adopted:—

"That it be referred to the Faculty of Medicine to consider and report to the Senate as to the manner in which it may best carry out the duty stated in the following paragraph of Section 80 of the Statutes of the University, viz.: 'The Senate shall use its best endeavours, whenever practicable, to secure common courses of instruction for internal medical students in the preliminary and intermediate portion of their studies under appointed or recognised teachers at one or more centres.'"

The Faculty of Medicine accordingly appointed a committee to carry out the wish of the Senate. This committee was made up of 31 members representative of all the schools of the University, and as far as possible of all branches of medical study. The chairman was Mr. H. T. BUTLIN and the committee resolved itself into sub-committees the members of which took upon themselves the task of making inquiries in London and elsewhere upon the matter in hand.

On Dec. 13th the report of the committee was laid before the Faculty of Medicine. The report states that the facts collected on behalf of the faculty fully bear out the statement of the Statutory Commissioners, who framed Section 80 of the Statutes, that the present method of teaching causes a serious financial strain on the resources of the medical schools, and that senior teachers of preliminary and intermediate subjects are underpaid. A persistent decline in the numbers of London medical students is noted, and the committee considers that if London is to maintain her position as a leading centre of medical education some material alteration in the conditions of such education is greatly needed. The faculty, therefore, recommends:—

"That the Senate should take steps to secure funds to enable it to establish in the near neighbourhood of the University a school of preliminary and intermediate medical studies."

The faculty has no doubt that the success of such a school will be certain (1) if enough funds are forthcoming to provide ample educational facilities and adequate remuneration for teachers without increasing the cost of education to

the students; (2) if provision is made for teaching all classes of medical students whether preparing for the examinations of the University or of other qualifying bodies; (3) if due provision is made for research; and (4) if provision is made for the instruction of women students in an institution under the direct control of the University. The faculty, however, feels that if any school wishes to retain the teaching of preliminary subjects it should be allowed to do so subject to the control of the Senate. The report includes a tabulated statement of replies received from the medical schools upon the question of what may be termed a "concentration school." Most of the schools are in agreement with the idea of the Senate that there should be common instruction in preliminary subjects as far as regards chemistry, physics, and biology. With regard to the subject of anatomy the general consensus of opinion seems to be that it should continue to be taught at the separate schools attached to the hospitals. To the questions thus opened up we shall have occasion to return in the main, while upon many offshoots of them we have constantly stated our views. It is undoubted that London as a centre for medical education is not increasing in popularity. London should be preëminent as a medical teaching centre by reason, not only of her position as the capital of the empire, but because of her unequalled wealth of clinical material. So far, however, from her position being maintained it is actually being lost. Seventy years ago the London medical man's teaching was considered hardly complete unless he had been to Paris or Vienna, and at about the same date Edinburgh was far ahead of London as a teaching centre. Since then London has made enormous progress, but the progress has begun to show signs of arrest. The London medical student is at a disadvantage in more ways than one: firstly, he cannot obtain a degree upon reasonable terms; and, secondly, the expense of living in or within reasonable distance of London for the term of five years which is now required is very high. The medical schools of the metropolis are feeling the effects of these two causes with the result that the number of students is lessened, while the teachers, especially of the preliminary subjects, do not receive anything like a proportional remuneration for their time and trouble. A "concentration school" would, no doubt, mean increased economy, but would it also mean diminished efficiency? This is the crux of a matter the numerous aspects of which deserve close attention.

### Annotations.

"*Ne quid nimirum.*"

#### THE METROPOLITAN WATER-SUPPLY.

THE *Times* of Dec. 14th, gives a report of a "smoking concert" which was held on the previous evening at the Whitehall Rooms of the Hôtel Métropole in connexion with the sixteenth annual meeting of the metropolitan division of the National Union of Conservative and Constitutional Associations. Mr. Walter Long, M.P., President of the Local Government Board, was present at the meeting and at a "smoking at home" which was held later in the evening. At these festive gatherings the question of the metropolitan water-supply was discussed. It is necessary,

therefore, that we should briefly refer to them. At a business meeting which preceded the "smoking concert" a report was submitted which referred to the last election of members of the London County Council. The fact that it resulted in a large Progressive majority was attributed to the apathy of the electorate and to the misrepresentations of the Progressive party. How far these two explanations tally, it is unnecessary to discuss. Neither explanation agrees with the one which has been clearly expressed in these columns. It may at the present juncture be worth while to recall the fact that just before the election the metropolitan water companies attempted to force on the people of London the adoption of certain regulations in regard to water-fittings. These regulations were of a character which called for, and received, universal condemnation except from those who were financially or sentimentally interested in the water companies. The people of London generally became aware of a fact which had long been known to those who had studied the question—the fact that active "wire-pullers" amongst the Moderate party were more interested in the water companies than they were in the welfare of the people of London. We gladly welcomed this spread of knowledge and its natural result—the complete defeat at the polls of a party which it was evident would not act in the interests of the London water consumers. It cannot be too clearly understood that THE LANCET has not, and does not take, any part in politics or in municipal politics, except in so far as they affect the public health, and in the matter now under consideration whilst we rejoiced at the well-merited defeat of the Moderates on the London water question we did not, and we do not, approve the attitude of the Progressive party with regard to the matter, but, on the contrary, we maintain that the question is one which can only be settled satisfactorily by taking into account the wants and interests of the inhabitants of a much larger district than that which is included in the County of London. At the "smoking at home," to which we have referred, we are glad to see that Mr. Long with respect to this matter took the view which has been consistently advocated in these columns. "A satisfactory settlement of the water question would," he said, "be a great advantage to London as a whole." It cannot, however, be said that he indicated what he understood by a satisfactory settlement, and he appears to have been facetious, or, at any rate, to have excited the laughter of the audience by referring to the state of uncertainty in which the public is still kept as to the provisions of the Bill which the Government is to introduce. According to the *Times* report, Mr. Long said that "he augured very good results to the Bill from the reception with which his proposals had been received so far as they were known, and he gathered that the knowledge upon them was not very accurate." Any knowledge which the public at present has as to the provisions of Mr. Long's Bill is derived from his own statements and from the *précis* of the Bill which was communicated to the *Times*. If these statements are not accurate it is needless to discuss them and useless to dwell on the vague generalities with which Mr. Long instructed or amused his followers. We will therefore allude to one point only to which he referred—a point which may prove of importance to Mr. Long and to the Government of which he is a member. Having assumed that the purchase of the metropolitan water companies' undertakings 'would be a good thing—an assumption, we may again point out, which may be proved to be groundless—Mr. Long is reported to have said that he believed that the provisions of the Bill which he would introduce "would convince Parliament that they were an honest attempt to act justly as between the vendors and the purchasers, although he did not believe either side would regard them as meeting all

their requirements." This curious statement certainly does deserve a moment's consideration. Mr. Long thinks that Parliament will pass his Bill. He also thinks that the metropolitan water consumers will not regard the Bill as meeting all their requirements. In brief, Mr. Long thinks that Parliament will pass a Bill which will not fulfil the requirements of those for whose benefit it is professedly passed. Is it not possible that Mr. Long relies too much on the "apathy" of the people of London?

#### SMALL-POX IN LONDON.

THE returns of small-pox in London since our last issue are as follows. On Saturday, Dec. 14th, there were 29 new cases notified and removed; on Sunday, the 15th, there were 14 new cases; on Monday, the 16th, there were 35 new cases; on Tuesday, the 17th, there were 32 new cases; and on Wednesday, the 18th, there were 21 new cases.

#### THE SITUATION AT THE MACCLESFIELD INFIRMARY.

WE announced last week that matters at Macclesfield Infirmary with reference to the appointment of a female junior house surgeon were at a deadlock. Miss Clarke, the junior house surgeon elected by the governors, refused to resign when the governors desired to fall in with the views of the medical staff; while the medical men refused to withdraw their resignations save under certain provisions. These provisions have now been made public and are as follows: (1) the selection of resident medical officers to be left in the hands of the honorary medical staff; and (2) the services of the present junior house surgeon be dispensed with from Jan. 15th, 1902. A letter has been sent to the governors of the hospital by the medical staff saying that only if these provisions are granted can they withdraw their resignations, but they promise that in the interim they will do all in their power to prevent any patient from suffering from lack of needful medical attendance. The medical staff state that they cannot agree to the continuance of the present arrangement—under which it would seem that they discharge their obligations, in spite of their wishes having been totally disregarded—for any further period, since they believe that such would be prejudicial to the interests of the institution and of the patients. They therefore have requested the governors to understand that they cannot be responsible for the care of patients after Jan. 15th next except under the conditions which they have stated. We do not see how the medical staff could possibly have come to any other conclusion whatever, and we trust that in spite of the industrious misrepresentations of their action which have been circulated they will maintain their attitude. It is, in our opinion, absurd to say that the whole question of the right of women to use in practice the medical degrees and diplomas that they have gained in examination is at question. Miss Clarke, we are informed, has refused to resign because she is standing for a principle, but, as far as we can see, the principle for which she is stated by certain journals to be making a gallant fight is not involved. The question at issue at Macclesfield is whether the medical staff of a public institution, having thoroughly made up their minds that there are circumstances which make it inadvisable to appoint a female resident officer to work under them, should be ordered by the governors to pocket their convictions. We publish in another column a letter from a well-known and highly respected member of the medical profession who dwells a little in detail upon a side of the matter to which we have barely alluded, but it is a side which has been mentioned by the lay papers published in Macclesfield and the neighbourhood. "X" is not the only medical man who could bring forward evidence that it is sometimes inexpedient for resident medical

officers to be of opposite sexes. "Quite apart from the cruelty to a certain class of male patients in a general infirmary that is involved in cutting them off from communication with their own sex during what may be called sexual troubles, there is the question of domestic convenience. Some of those who know the internal organisation of the Macclesfield Infirmary do not consider that it is quite seemly that one of the resident medical officers should be a female. The governors do not seem to mind this, if they have ever debated it, while the medical staff for obvious reasons of delicacy do not allude to the point. But there are supporters of the infirmary who view the matter in this light and therefore agree with the medical staff, even while being as fully in accord with the aspirations of women as the governors and while thoroughly believing that in a suitable sphere the female medical practitioner may be a boon to her generation.

#### THE ROYAL INSTITUTION OF GREAT BRITAIN.

AMONG the Friday evening lecturers at the Royal Institution of Great Britain are Lord Rayleigh who will take for his subject on Jan. 17th "The Interference of Sound"; Mr. H. G. Wells, B.Sc., who will deal on Jan. 24th with "The Discovery of the Future"; Professor A. Croom Brown who will discuss on Jan. 31st "The Ions of Electrolysis"; Professor Arthur Gamgee who will discourse on Feb. 7th on "Physico-Chemical Researches on the Blood-Colouring Matter"; and Professor H. Becquerel who will deliver in French on March 7th a lecture on "Radio-Active Bodies." After Lord Rayleigh's discourse on Jan. 17th the Duke of Northumberland, who is the President, will unveil and present to the Royal Institution on behalf of the subscribers a bust by Mr. Onslow Ford of Sir Frederick Bramwell, Bart., honorary secretary of the institution from 1885 to 1900. On Tuesdays, Jan. 14th, 21st, and 28th, and Feb. 4th, 11th, and 18th, Dr. Allan Macfadyen will lecture on the "Means of Offence and Defence of the Cells in Relation to Immunity," and on Tuesdays, Feb. 25th and March 4th, Mr. William Napier Shaw, F.R.S., will lecture on "The Temperature of the Atmosphere."

#### TYPHOID INFECTION WITHOUT TYPHOID FEVER.

BACTERIOLOGY has shown that the specificity of the infective diseases depends neither on their clinical evolution nor on the lesions produced, but on the pathogenic agent, and has, therefore, singularly modified nosology. Typhoid fever is a striking example. Its well-defined clinical and pathological features appeared to furnish all that was necessary to constitute "a disease." But they have been shown to be but some of the effects produced by a specific organism—Eberth's bacillus—which may infect the whole system may attack a particular tissue or organ either at the time of the fever or even years afterwards, giving rise to the so-called complications and sequelæ. A further step, which the discovery of Widal's reaction has facilitated, is the recognition of the fact that a lesion may be produced by the typhoid bacillus quite independently of any illness such as typhoid fever. Thus Dr. Cushing has recorded a case of cholecystitis in which cholecystotomy was performed and the typhoid bacillus was found in the gall-bladder and in which the blood gave the typhoid reaction,<sup>1</sup> although there was no history of typhoid fever. The gall-bladder appears to be, like Peyer's patches, a site of election of the typhoid bacillus.<sup>2</sup> At the meeting of the Société Médicale des Hôpitaux of Paris on Nov. 29th M. Fernand Bezançon and M. A. Philibert related the following case. A woman, aged 28 years, who had been exposed to much privation, entered hospital on Sept. 11th, 1901. She was

<sup>1</sup> Johns Hopkins Bulletin, May, 1898.

<sup>2</sup> See THE LANCET, July 9th, 1898, p. 96, and June 17th, 1899, p. 1648.

pale, feeble, and emaciated; the temperature was 104° F. There was no diarrhoea, enlarged spleen, tenderness, or gurgling in the iliac fossa, or rose-spots. She complained of headache but had not the typical typhoid face; her appearance rather suggested tuberculosis, but there were no signs of that disease. On the following morning the temperature fell to 100° and the patient felt better. But in the evening the temperature rose to 102·8° and rigors began; they continued during the whole night. Next morning there was a slight remission (102·5°); in the evening the temperature rose to 102·8°. On the 14th the morning and evening temperatures were respectively 103° and 104·3°; on the 15th they were 103·6° and 105°. The temperature chart, in spite of the absence of other symptoms, suggested the diagnosis of typhoid fever, which was confirmed by the diazo-reaction and Widal's test. On the 16th a tender tumour was discovered, which was evidently the distended gall-bladder. On the 17th (the seventh day of the disease) the temperature, instead of maintaining its level, fell to 103°, and on the 18th to 100°. On the 19th a large greenish liquid stool was passed, the temperature fell to 99·3°, and the gall-bladder was smaller and less tender. Recovery followed. This case appears to be an example of typhoid cholecystitis without the ordinary lesions or symptoms of typhoid fever. Cases of lesions due to the typhoid bacillus without typhoid fever have been but rarely observed. The following are some examples. M. Kelsch has recorded a case of hæmorrhagic pleurisy in a tuberculous subject, M. Fernet a case of serous pleurisy, and M. Guinard a case of appendicitis. Intermediate cases have been described. Thus M. Fernet has recorded a case of typhoid meningitis in which during the whole course the symptoms were those of meningitis and in which the intestinal lesions found after death were very slight. Cases of general typhoid infection (typhoid septicæmia) without intestinal lesions have been described by several writers. Finally, the recent researches of Lœsener, Reinlinger, Schneider, and Chantemesse have shown that the typhoid bacillus may be simply a saprophyte and occur in the stools of healthy persons. Thus in the case of the typhoid bacillus, as in that of other microbes, the simple "germ theory of disease"—that the invasion of the organism by the microbe determines the disease—must give place to a more complex conception. Predisposing causes are necessary. According to these causes, according to the state of the viscera, a general typhoid infection without intestinal lesions (typhoid septicæmia) or with intestinal lesions (typhoid fever) or a local typhoid affection results.

#### TREATMENT OF PLAGUE.

WE have received a copy of a report on the treatment of plague with Professor Lustig's serum at the Arthur-road Hospital, Bombay, by Khan Bahadur Dr. W. H. Choksy, special assistant health officer, Bombay Municipality. The pamphlet affords interesting reading. A brief *résumé* is first given of recent researches in bacterio-therapy, and then the principal characteristics of the epidemic of 1900-1901 are detailed. These are stated to be as follows:—(1) Rapid extension of the local infection with multiple contagious buboes; (2) intense and rapid septicæmia; (3) irregular course, prolonged duration, frequent relapses due to re-infection or extension, indolent buboes remaining enlarged for a long time or suppurating very late, and numerous complications; (4) tardy convalescence, or marasmus from secondary infections, or death from plague pyæmia and consequent toxic degenerations of the internal organs; and (5) greater resistance to the action of serum. The results of the serum treatment were not so satisfactory as in previous years. Dr. Choksy ascribes the partial failure to the peculiarities of the epidemic which are mentioned above, especially the marked tendency to re-infection and the large number of

septicæmic cases. Factors had to be contended with which were practically non-existent previously, and he believes that if another epidemic occurred of the same nature the results would be the same, unless, indeed, it were possible so to perfect the serum as to make it effective against general blood infection. From August, 1900, to February, 1901, the serum treatment was conducted on the selection method. As no serum was available in February only five persons were treated with it. During the seven months comprised in the above period 52 patients were treated with the serum, of whom 35 died and 17 recovered. The non-serum cases numbered 162, and 125 of them died and 37 recovered. The mortality-rate in the former was therefore 67·30 per cent., as against 77·16 per cent. in the latter. Dr. Choksy adds that the difference in the mortality-rate between these two sets of cases would have been greater had there been sufficient serum in February to treat all the cases that were deemed suitable for serum treatment. The results in March, April, and May were as follows: out of 104 patients treated with the serum 81 died and 23 recovered, whereas out of 102 not so treated 81 died and 21 recovered. The mortality-rate therefore works out at 77·82 per cent. in the former and 79·42 in the latter. The unsatisfactory results are due to the number of septicæmic cases which presented themselves, for out of 57 such patients treated with the serum only two recovered, whilst out of 76 non-septicæmic cases 33 recovered. It would appear, therefore, that in the latter class of case the serum has yielded good results, whilst if the patient comes under observation in the septicæmic condition he has practically no chance of recovery.

#### THE FIRST ANNUAL MEETING OF THE NORTHUMBERLAND AND NEWCASTLE MEDICAL ASSOCIATION.

IN the month of November last year the Northumberland Medical Association, which had been founded in the previous August, amalgamated with the Newcastle and District Medical Ethical Society. The object of these organisations and the causes that brought them into existence and led to their union under the title of the "Northumberland and Newcastle Medical Association" have been described at some length in THE LANCET.<sup>1</sup> We have now received the first annual report of the new body. The information contained in this document is encouraging from every point of view. Though the association is only a year old it boasts of 171 members, and a considerable number of the younger members of the medical profession who have not yet formally joined it have, at all events, promised not to oppose its objects. Consequently rather more than half of the medical men who practise in the county have already been won over to this medical union. Nor has the work done been merely that of organisation. From close upon 30 different districts applications have been made on behalf of medical men engaged in contract work, and an advance in payment has been obtained in all these cases with but one exception, and in this case the negotiations are still pending. This great success is due to the fact that no action was taken before all the medical men practising in the district had signed an engagement by which they pledged themselves to support the association throughout. But there are two other causes to explain the success achieved. First, the association created an indemnity fund so that any member who suffered in consequence of any action which he had taken at the request and on behalf of the profession would receive compensation. In actual practice there has been but very slight call upon this indemnity fund. The fact of its existence seemed to suffice to secure that unanimity which ensures victory, and thus there were but few victims. The second cause of

<sup>1</sup> See THE LANCET, Feb. 23rd, p. 561, and March 2nd, 1901, p. 665.

success is the voluntary work of the president (Mr. J. Rutherford Morison), the treasurer, and the members of the various committees. Many of these gentlemen have no personal interest whatsoever in the questions at issue; they have no contract work or club practice, and they have only given their assistance because they are actuated by the altruistic conception that each member of the profession, whatever may be his individual position, should take part in all movements that tend to raise the standing and dignity of the profession as a whole. Thus, the organisers have zealously given advice and assistance to medical men who have encountered difficulties in their practice, and in most cases this has prevented contests that were threatening. For such purposes they have attended numerous meetings of workmen, they have received deputations and committees representing various sick funds, they have spoken and argued, discussed and persuaded, and thus finally arrived at friendly agreement. Then there have been much correspondence and what was, perhaps, most difficult and discouraging, much canvassing of medical men themselves. To be obliged to devote a great deal of time and energy to induce medical men to attend to their own interests is certainly irritating, yet that is the main difficulty. Each member of the profession, says the report, should coöperate because the benefits attained by one section are reflected upon the whole. Then the report adds: "It is not too strong a deduction to make from the fact that this association has done so much in so little time that were the whole of the medical profession in the county to join our ranks we could secure practically any desirable reform." Yet close on half the medical practitioners of the county still stand outside the ranks of the union. The Northumberland and Newcastle Medical Association is so ably managed and successfully organised that there is no excuse for the practitioners of the county to withhold their support. All should join and join at once.

#### THE CORTICAL REPRESENTATION OF THE FUNCTIONS OF THE STOMACH.

Dr. Paul Sollier and Dr. Henry Delagenière contribute to the *Revue Neurologique* of Nov. 30th an account of a case of local injury to the brain which appears to throw light on the question of the cortical representation of the stomach. The researches of Openchowski and his pupils and of Bechterew have shown that in animals there are present cortical centres which preside over the functions of the stomach and intestines. In the human brain it has not hitherto been possible to localise the centre for the stomach. Dr. Paul Sollier in the course of a research into the cortical representation of the visceral functions in hysterical subjects located the "stomach centre" in the middle portion of the superior parietal lobule, the principles and methods employed in the study being detailed in a previous article<sup>1</sup> by the same author. The case recorded below now furnishes the anatomical data necessary to corroborate the localisation propounded. It was that of a boy, aged 11 years, who received a wound in the parietal region of the skull from a pickaxe on May 30th, 1900. He lost consciousness and remained helpless and in a comatose state for a week after the accident. Respiration was slow, at the rate of 12 per minute, the pulse was small and accelerated to 108 per minute, and the temperature was elevated. The wound was the seat of a free and abundant suppuration. There was relaxation of the vesical and anal sphincters. An operation was performed on June 7th and after the application of the trephine two or three fragments of bone were removed. An abscess cavity was now seen involving the brain-substance to the depth of 5½ centimetres (2¼ inches), the shape of the cavity being conical with its base at the surface of the hemisphere,

measuring 6 by 4½ centimetres (2½ by 1½ inches). This cavity was drained of its contents, light tampons of sterilised gauze were packed in, and further drainage was secured by means of small tubes. The temperature and pulse fell to normal on the fourth day after the operation and the patient's condition improved for a while. He could swallow with difficulty, and on the sixth day he emerged from the state of coma and seemed to regain consciousness. He could not reply to questions but he swallowed with avidity everything that was given. The next day he uttered a few words demanding food, and devoured greedily what was given. He could now give replies as to his accident but relapsed into a state of slumber from which he from time to time emerged only to ask for more food. He consumed broths, eggs, meat, and all foods and digested them with equal facility. This excessive hunger (bulimia) became more marked during the next few days and to avoid gastric troubles he was now given four regular meals a day. He continued to improve but his voracity persisted. It was noted that marked right hemiplegia was present after the operation. The paralysis was at first flaccid, but eventually contractures of groups of muscles began to develop. Passive movements and regulated exercises were now adopted for the affected limbs and with perseverance a considerable degree of power of movement was regained. The scalp wound was now completely cicatrised. Bulimia still persisted, and this was looked upon by Dr. Sollier as due to irritation of the gastric centre in the parietal lobe from its proximity to the wound which lay just in front of the middle portion of the superior parietal lobule.

#### THE LEECH MEMORIAL FUND.

A MEETING of the subscribers to the Leech Memorial Fund was held on Dec. 11th, at the rooms of the Manchester Literary and Philosophical Society, with Alderman Thompson in the chair. The report of the committee, which was read by the secretary, stated that the sum of £1251 12s. 6d. had been received from 152 subscribers. Of this amount £1000 had been paid to the Owens College on condition that the money should be called the "Dr. Leech Memorial Fund"; that the income and such portion of the capital sum as the council of the college may from time to time think fit, should be applied for the immediate maintenance of the professorship in, and for promoting the study of, *materia medica* and therapeutics in the Owens College; and that the chair should bear the name of Dr. Leech. The money on these conditions has been gratefully accepted by the council of the college with the desire that its best thanks should be conveyed to the subscribers to the fund. Out of the balance remaining a portrait in oils of the late Dr. D. J. Leech has been commissioned for presentation to the council of the Owens College, and it was also proposed, if sufficient funds are available, to have another portrait executed as a bronze medallion to offer to the board of management of the Royal Infirmary, Manchester, to which hospital Dr. Leech was honorary physician for over 20 years. The report was adopted unanimously and the committee was instructed to carry out its proposals and to issue a balance-sheet and final report to all the subscribers when the fund has been closed.

#### THE NEW MEDICAL OFFICER OF HEALTH OF JOHANNESBURG.

JOHANNESBURG, after having, in common with many other towns in South Africa, passed through a period of storm and stress, is now returning to a normal condition. Week by week more stamps are being set up in the mines and civil life is being again entered upon. The latest development is the appointment of a medical officer of health of the town as distinct from the medical officer of the

<sup>1</sup> *Revue Neurologique*, 1900, pp. 101 and 365.

colony, and we learn with great pleasure that the medical man elected to this responsible post is Dr. Charles Porter, the county medical officer of Shropshire. Dr. Porter, who was for some time medical officer of health of Stockport, graduated with honours as M.D. of the Royal University of Ireland in 1889. He received the Diploma in Public Health from the University of Cambridge in 1891 and is a barrister-at-law and a member of Gray's Inn. In Johannesburg he will find plenty of scope for the abilities which he possesses. The salary is to be £2000 per annum, with assurances as to fixity of tenure and other important matters, while he is to be distinctly chief of the health department and independent of the medical officer of health of the Transvaal Colony. The municipality wish him to organise and control the native quarters outside the town, to frame a sanitary code, to improve the public water-supply, and to investigate the prevalence of typhoid fever and pneumonia. We congratulate both Johannesburg and Dr. Porter upon this appointment, and wish him every success in the performance of his arduous duties.

#### THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Cape of Good Hope received at the Colonial Office on Dec. 12th states that for the week ending Dec. 7th the cases of plague in the Cape Peninsula numbered 0. At Port Elizabeth the cases of plague numbered 1, a native. The deaths from plague were as follows: coloured persons, 1; natives, 1. In all other places the cases of plague were as follows: Europeans, 1; coloured persons, 1. The deaths from plague numbered 0, and there were no cases in persons under naval and military control. At Mossel Bay 2 further cases of plague have occurred during the week, and 2 cases of suspicious disease have occurred at Ladysmith in persons who have recently come from Mossel Bay. As regards the Mauritius, a telegram from the Governor received at the Colonial Office on Dec. 13th states that for the week ending Dec. 12th there were 42 cases of plague, of which 25 were fatal.

#### THE SECOND REPORT ON THE CONCENTRATION CAMPS IN SOUTH AFRICA.

IN THE LANCET of Nov. 23rd, p. 1435, we referred to the first blue-book which was issued dealing with the subject of the concentration camps in South Africa. The mortality in these camps is undoubtedly very high and the disease most responsible for the death-rate is measles. Measles is a disease which is always attended by a very high mortality-rate in young children and is about the only zymotic disease which is unaffected by sanitation. Even in England and Wales the mortality-rate of measles has steadily increased since the 10 years, 1871-1880, whereas the mortality from other zymotics except diphtheria and whooping-cough has markedly decreased. The form of disease prevalent in these camps is of a peculiarly malignant type and, owing to the difficulties in sanitation which always accompany a crowded population other diseases such as pneumonia have had a high rate of mortality. In continuation of this first report we have received a second blue-book, issued on Dec. 14th, dealing mainly with the new policy of breaking up the larger camps into smaller ones. The mortality for October and November remains regrettably high, but the difficulties with which the authorities have to contend are enormous. Stationary camp life is necessarily unhealthy, and when the habits of the refugees are considered it is a wonder that the mortality has not been higher. They are extraordinarily ignorant, and being in the habit on their lonely farms of disposing of every kind of slops and refuse in the immediate vicinity of

their houses they continue this custom in the camps. When the camps were first formed they refused to use latrines and instead used the space around the tents. While this sort of custom has to be contended with it is almost hopeless to expect that even a camp of only 500 persons will show a satisfactory state of matters.

#### PRESENTATION TO PROFESSOR LIVEING.

THERE was a large gathering of subscribers and lady friends in the hall of St. John's College, Cambridge, on Dec. 7th, when a portrait of Professor G. D. Liveing, painted by Sir George Reid, was presented to Professor Liveing as part of a testimonial in recognition of his valuable services to science. A photographic reproduction of the portrait is to be sent to those subscribers who may desire to receive one, and a bronze bust, to be designed by Miss Edith Bateson, will subsequently be placed in the Cambridge Chemical Laboratory. The Master of Trinity, who made the presentation, said that when future students came to ask the history of some of the worthies whose portraits adorned that hall, and in particular that of Professor Liveing, they would be told that it recorded the memory of an almost perfect student life, of the affection of troops of friends, and the grateful pride of that University.

#### THE CONTROL OF SMALL-POX.

PROFESSOR KOCH, in the remarkable address which he delivered before the British Congress on Tuberculosis, raised more than one point of a controversial nature. But there are few epidemiologists who would not be prepared to accept without demur his contention that the experiences of the past has taught us that there is no one method of prevention which is equally applicable to all diseases. We have, for instance, learnt that the best mode of attacking malaria is to devote attention to the mosquitoes which are the active agents in its spread; that cholera and enteric fever may be best controlled by paying attention to our water-supplies; and that with respect to tuberculosis the destruction or disinfection of the infected sputa is, pending the report of the Royal Commission on Tuberculosis, the royal road to success. At present London is much troubled with small-pox, and there may be advantage at this juncture in asking how far small-pox is a disease which lends itself to a prophylaxis of its own. There is in certain quarters a tendency to deal with small-pox as with a disease against which we possess no special prophylactic means, such as vaccination and revaccination—to treat it, in a word, as we might typhus fever or yellow fever, and, in addition, to expend large sums of money on the "quarantining" of contacts, on international notification, and such like. These measures may be very useful auxiliaries, but it appears to us that in regard to small-pox prevention they are forced into too great prominence, whereas the true prophylactic, that of vaccination, tends to be relegated to a somewhat secondary position. If, in addition to the special prophylaxis other expenditure such as is incurred in connexion with disease against which no preventive "vaccine" has been discovered has to be provided for, we are tempted to ask, What is the use of our State-regulated system of vaccination? Those of us who believe that recent and efficient vaccination is a sufficiently certain protection against small-pox, and who are content to take our risk on this understanding, feel inclined to object to expenditure upon subsidiary measures which can most usefully be practised in the case of diseases against which science has, as yet, provided no special prophylaxis. We who have every faith in the protective power of recently-performed vaccination feel that as a matter of personal selfishness it is absolutely immaterial whether or not those around us hold the same faith. And hence we may naturally object to

a sort of double expenditure—i.e., on vaccination and "quarantine." By all means let a sharp look-out be kept upon those who have been exposed to infection, and in special instances even the "quarantining" of contacts may be desirable; but above all, and primarily, let them be vaccinated or revaccinated, as the case may be, and let their clothes and other effects be disinfected by modern methods. If the machinery for obtaining information is incomplete or unsatisfactory let it be improved. Let varicella be notified in order that we may be in a position to ascertain the existence of small-pox cases, and let us insist, by legislative means if necessary, that vaccination, whether by public vaccinators or by private practitioners, shall be efficiently performed. Let us, too, provide medical men with a special knowledge of the manifestations of small-pox to aid the medical practitioner in cases of doubt. Last, but not least, let us place the medical officer of health in a position to enable him to obtain all such information as is necessary for the proper carrying out of his important functions. In this last connexion there is need for increased statutory powers, as is well illustrated in a recent report by Mr. A. E. Harris, the medical officer of health of the borough of Islington. In this instance the occupier of the house in which a case of small-pox had occurred placed every obstacle in the way of the borough officials who endeavoured to ascertain the names and occupations of the inmates of the invaded house. The occupier in question withheld from the sanitary inspector the important fact that her niece was a pupil teacher in a private school, and another inmate of the invaded house refused to divulge the nature and address of the business in which she was employed. Mr. Harris suggests that the withholding of information such as this should be an offence punishable at law, and we quite concur in the view that the matter should be brought to the notice of the Local Government Board, with the object of a clause being inserted in the next Public Health Act to remedy this undesirable state of affairs. There will, too, doubtless be advantage in there being a closer touch between laundries and the health authorities, so that the spread of the disease by these channels may be prevented or controlled. And certainly persons who have been exposed to the risk of infection should be visited at their homes during the incubation period, even daily visits being paid towards the expiration of the 12 days' incubation. But we have grave doubts whether the very small additional advantages which might be thought of as being gained by isolating contacts in "quarantine" establishments would be at all adequate to the trouble and expense which such a measure would entail. Moreover, we know from experience that inspection at the homes of those exposed is often all that is found to be practicable.

#### AN ITALIAN PHYSICIAN ON THE SOUTH AFRICAN WAR.<sup>1</sup>

"How will you be able to write about Spain after you have been there?" asked Heinrich Heine of Théophile Gautier, who was starting for that country. The deadly, if delicate, rebuke administered to the French *feuilletoniste* by the "Aristophanes of Germany" might have been the motto of Professor Ruata in the well-informed and trenchant remonstrance which he has addressed to his compatriots. "Boeritis," it is just to say, has hardly assumed the virulent form in Italy that it has taken in other countries; indeed, it is only of late that she has, among a section at least of her population, allowed herself to be influenced

by the epidemic of calumny which has pervaded continental Europe against England's conduct of the South African campaign. But that section makes up in noise and persistence for what it lacks in knowledge and impartiality, and so the able and accomplished occupant of the chair of *Materia Medica* in the Umbrian School has prescribed an "alterative" in the form of a recapitulation of the facts, which, however unpalatable to the patient, must end in his recovering the healthy tone that he ought never to have lost. Professor Ruata, indeed, is doing for his compatriots what has been done for theirs by MM. Yyes Guyot and Cornély in France, by the "Old Berliner" in Germany, and by MM. Naville and Jallicet in Switzerland: he has assumed with Madame de Staël that if "the judgment of foreigners" is to be really "the verdict of a contemporaneous posterity," that judgment must have the data put fairly and fully before it and must reinforce the "detachment" of the umpire with the "inspiration" of the eye-witness. The result is one of the clearest and most cogent vindications of British policy and British procedure in South Africa yet published—an *opuscule* which must add to the author's already high reputation as a truth-loving, painstaking, and public-spirited investigator.

Mr. George Lenthal Cheate, C.B., F.R.C.S. Eng., has been appointed surgeon to the Italian Hospital, Queen-square, W.C.

## Pharmacological Notes.

### ADRENALIN.

ADRENALIN, the active principle of the suprarenal glands, has been isolated in a pure form by Dr. Jokichi Takamine, who has published an account of his work.<sup>1</sup> This substance has the approximate composition represented by the empirical formula  $C_{10}H_{13}NO_3$ , but its chemistry has not yet been completely worked out by its discoverer. It occurs in light, white, microscopic crystals, has a slightly bitter taste, and leaves a numb feeling on the tongue where it has been applied. In dry form it is perfectly stable. It is soluble with difficulty in cold water but more readily in hot water, forming a slightly alkaline solution. It is easily soluble in acids and in alkali hydroxides, forming salts; such solutions readily oxidise on exposure to air. The physiological properties of adrenalin have been practically tested on dogs by Dr. E. M. Houghton of Detroit, who finds that a fraction of one drop of aqueous solution of adrenalin, or its salt, in the strength of 1 in 50,000, blanches the normal conjunctiva within one minute. It is a strong hæmostatic. The intravenous injection of adrenalin produces a powerful action upon the muscular system in general, but especially upon the muscular walls of the blood-vessels and of the heart, resulting in an enormous rise of blood-pressure. The result of three intravenous injections of one cubic centimetre of the solution of adrenalin chloride, 1 in 100,000, into a dog weighing eight kilogrammes, raised the blood-pressure 30 millimetres of mercury. This and other experiments indicate that adrenalin is over 1000 times stronger than the fresh glands. The therapeutic applications are already numerous. Generally speaking, when locally applied it forms a powerful astringent and hæmostatic; it may be used in various forms of inflammation and it is also a cardiac stimulant. It is said to be non-irritating, non-poisonous, non-cumulative, and without injurious properties. As an antidote it has been used with good results in morphine- and opium-poisoning, also in circulatory failure, in the prevention of collapse in anaesthesia, and in carrying out bloodless operations in the nose, eye, ear, and throat. It has also given good results in some cases of deafness, hay fever, nasal hæmorrhage, and in various forms of heart disease.

### DIGESTIVE FERMENTS IN SURGICAL PRACTICE.

The local application of digestive ferments to dissolve the

<sup>1</sup> Il Conflitto Anglo-Boero. Appunti del Prof. Carlo Ruata dell'Università di Perugia: Tipografia dello Stabilimento S. Lapi, Città di Castello, 1901.

<sup>1</sup> American Journal of Pharmacy, 1901, p. 523.

coagula and putrescent matter found in lesions or the products of morbid changes in the living human organism is not new. Of such ferments that obtained from a South American species of papaw has been used extensively, according to M. J. Wilbert.<sup>2</sup> Preparations from the milky juice of the plant have been recommended to dissolve the false membrane in diphtheria and externally to aid in cleaning out disagreeable sloughing ulcers by dissolving the broken-down granulations and albuminous exudate that offer both shelter and food for colonies of micro-organisms. The latter use is an old one and is borrowed from the practices of savage races—indeed, the native South American practitioners use a paste made up with the juice of the papaw as a dressing for foul ulcers and offensive sores such as occur among the natives in hot climates. Hitherto the difficulty has been experienced that the keeping of fluid preparations of this drug has resulted in the impairment of the active principle. It is suggested with some reason that any solvent capable of attacking and destroying necrotic tissues without injuring the surrounding healthy cells offers advantages over corrosive or poisonous antiseptics or caustic washes or the use of the curette with its attendant pain. The following formula shows the composition of a solution of the ferment pepsin which has been so used for some time and has given satisfaction in the German Hospital, Philadelphia. It is called "physol" (a corruption of the words "physiological solution") and contains the following proportional parts: pepsin (U.S.P.), 50; menthol, eucalyptol, oil of wintergreen, of each 0.5; alcohol, 10; diluted hydrochloric acid, 20; glycerine, 50; and distilled water to make 1000. 50 parts of talc are used to clear the solution by filtration. The product is a clear, light yellow, pleasantly aromatic solution that appears to keep without any appreciable change in its peptonising properties. Pepsin has the advantage over papaw that it is more easily obtainable and is better capable of being kept in solution. Physol is mixed with two or three times its volume of water and applied as a wet dressing; it has given excellent results by removing the broken-down granulations and other septic materials from old chronic ulcers and abscesses, leaving a healthy granulating surface that may be treated as a clean wound in the regular way.

#### IMMUNITY OF HEDGEHOGS TO CANTHARIDES.

Hedgehogs, according to Alexander Ellinger,<sup>3</sup> are immune to the toxic action of cantharides. Horvath has known a hedgehog to eat 30 grammes of live cantharides, containing 10 centigrammes of cantharidin, during 24 hours without suffering the least harm. This is a large dose compared with that which a human being can tolerate; thus, a fifth of a milligramme causes albuminuria in a human adult, whilst two centigrammes constitute a lethal dose. Ellinger finds that the lethal dose for a hedgehog is 10 centigrammes by intravenous injection, and that a dose of two centigrammes has no effect on the animal's kidneys. These organs are capable of eliminating large quantities of cantharidin without causing any organic lesion. The cantharidin so excreted retains, however, its toxic action on other animals. It is interesting to note that the skin of the hedgehog is susceptible to the irritant action of cantharidin.

## THE PLAGUE IN INDIA.

BY ALEX. GRAHAM-SIMPSON.

### II.—THE BOMBAY PLAGUE LABORATORY.<sup>1</sup>

STRANGE as it may seem, while accompanying Lord Sandhurst around the new Plague Laboratory, Bombay, on the day on which it was opened one could not help recalling the words of one of those old songs of the people that depict in verse, as did Bellamy in prose, an ideal future for the world. There, in a place where plague met one at every turn, where the microbe that has claimed such a large proportion of the population of India was actually being manufactured in countless millions, the thought came back of a good time to come, because one grasped the inner meaning of all the vast

quantities of apparatus; because one saw more than the tubes and bottles and cylinders and burners; because one recognised that here science was adding one more to her victories, that another step was being taken towards a great, though perhaps still far distant, millennium. It was with feelings more of reverence than curiosity that one passed through those transformed rooms of the Old Government House and examined the process by which one of the greatest blessings of the century—a preventive of the deadly virulence of plague—was being produced.

#### Cultivation of the Germ.

The first step in securing toxin is to obtain a medium for the cultivation of the germ to be neutralised. This medium is made by acting upon goat's flesh with acids and subsequently heating it under very high pressure at a temperature of 140° C. As a matter of fact, any flesh would answer the purpose, but that of the goat is deemed best where the native of India is concerned because it appeals to fewest of his many religious prejudices. The heating continues for about six hours, when the little black cylindrical pots in which it takes place, and which are fitted with thermometers and pressure registers, give out a black albuminous solution—practically the same as that which would be found in the human stomach after digesting the same material. This liquid is passed through animal charcoal to decolourise it. Mixed with water in the proportion of 3 to 7 it is then twice heated for the purpose of sterilisation and the nutritive medium is ready.

#### Process of Insemination.

In an outhouse is a huge boiler. Into this are run, in a cradle moving on wheels along little rails, numbers of large flasks containing liquid for sterilisation; and the fact that at one time enough fluid is boiled to dose 32,000 people will convey some idea of the extent of the work carried on—a work, it may be added, unequalled in quantity by any laboratory in the world. The medium thus obtained in another room of the institution is sown with bacilli procured from plague patients, this insemination being accomplished by means of a Pasteur *ballon*. From the ball of the vessel two tubes protrude, one (closed at two points by cottonwool) to form a mouthpiece; the other, long and thin, and when not in use closed at the end by fusion. When insemination has to be accomplished the sterilised medium is placed in a large flask retained in a sloping position. A Bunsen burner is applied to the neck, and particularly to that portion of the neck which contains the wadding forming the stopper, in order to prevent any other microbes existing in air being present. At the same time the sealed end of the *ballon* tube is broken and the burner is applied sufficiently long to get rid of any extraneous matter. Next, the purified end is slipped down through the soft stopper of the flask containing the liquid to be treated. The operator, applying his lips to the disengaged tube of the *ballon*, blows. Any germs from his mouth are captured by the cotton wads on the way down, and the pressure which he thus creates in the sphere causes a portion of the plague-infected fluid within to flow down the opposite tube into the flask, which is at once closed and inscribed with particulars as to date and so on. Numbers of these flasks are inseminated together and between the operations the nozzle of the *ballon* is placed in a tube around which steam is continually playing to keep the glass sterile and to save time by avoiding the necessity of hermetically sealing on each occasion. As a very few drops of the infected liquid are necessary for the cultivation the contents of one of these Pasteur arrangements serve for a large number of flasks. Before and after the operation being performed on each set small sample flasks are similarly treated. If these produce a pure culture it may be assumed that the others will do the same.

#### Haffkine's Germ Test.

The next room visited is that in which in days gone by the governors of Bombay held their State banquets. Even now the tables groan with the weight upon them, but it is not the weight of viands. There in the darkness stand rows and rows of flasks in which plague is living and thriving again. A lighted candle held at the opposite side of one of these shows the stalactite growth suspended from the surface, the introduction of a little cocoa-nut oil having aided in the suspension and in keeping the liquid clear. Haffkine discovered this test for the germ after months of close investigation and the discovery is one of the greatest value.

<sup>2</sup> Ibid., p. 535.

<sup>3</sup> Archiv für Experimentelle Pathologie und Pharmakologie, 1901, p. 89.

<sup>1</sup> No. I. was published in THE LANCET of Dec. 14th, 1901, p. 1692.

*A Beautiful Spectacle.*

Plague, as seen in the hospitals, is dreadful, and more dreadful still does it appear as it glazes the eyes of its victims; but, as it grows here in delicate white points, looking whiter against the rich wine colour of the medium, it is beautiful indeed. A shake, and still greater beauty is manifest. The points become disengaged from the surface, roll themselves into thousands of tiny balls, and fall like a miniature snow-storm to the bottom of the flask. For six weeks at intervals the medium is so shaken until at last it is found that no more fresh germs are produced. There is then a solid deposit of living, virulent plague bacilli at the bottom of each vessel. The liquid above is full of their poison and is, in fact, what is known as the toxin.

*Final Sterilisation.*

Away to another room the flasks are taken. There they are placed in a boiler and heated for an hour at 65° C., care being taken to keep the temperature even. When the time is up they are rapidly cooled in troughs specially constructed by Government to the design of the staff. In this way the microbe is killed. To the toxin is now added  $\frac{1}{2}$  per cent. of pure carbolic acid, also sterilised. The liquid is now ready to be syphoned into bottles, a process in which, again, are manifest the wonderful care and exactitude necessary in all that pertains to bacteriological science. Again there is sterilising with the Bunsen burner. A long tube, part glass, part rubber, is inserted in the toxin mixture, and the rubber being used for the performance of a sort of milking operation from the flask the contents are drawn off into heated medicine bottles stoppered with sterilised cotton-wool plugs. These plugs are removed, the necks of the bottles are heated, and the bottles are closed with corks, also sterilised in a solution of 4 per cent. formalin and dipped into boiling paraffin so as to create a wall between the cork and the glass. In the stoppering the cork is only touched with heated forceps. Cork and neck are now covered with carbolised parchment which in turn is fastened on with carbolised string. The whole is dipped again into the boiling oil so that all crevices may be closed and a label with particulars regarding brew and dose is affixed.

*A Wonderful Factory.*

In the packing-room below native women are to be seen deftly arranging these bottles in cases ready for export, and neat boxes full of them, with all details stamped on, are sent to nearly every part of the world, of late particularly to South Africa and Australia.

It is a wonderful factory this, an almost unique concern that sells at a loss that humanity may gain. Pity it is that the natives of India cannot be made to understand its value and that the numbers who go to be inoculated are not more in proportion to the number who year after year are stricken down with the plague. Lord Sandhurst could have known Bombay in no more unhappy times than those of his governorship, but it should be to him a bright remembrance that under his government the discovery of plague prophylactic was made, that he forwarded the research, and that among the many institutions with which he was prominently connected in the Presidency of Bombay he can number the great plague laboratory.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary meeting of the Council was held on Dec. 12th, Mr. H. G. HOWSE, the President, being in the chair.

The PRESIDENT reported the death of Sir William MacCormac, Bart., K.C.B., K.C.V.O., Member of the Council, past-President, and past member of the Court of Examiners of the College.

The following vote of condolence was then carried: "The Council hereby record their deep regret at the death of their colleague, Sir William MacCormac, Bart., K.C.B., K.C.V.O., and their very sincere sympathy with Lady MacCormac in the loss she has sustained. The Council desire to express their grateful sense of the many services rendered to the College by Sir William MacCormac and especially to record their appreciative recognition of the dignity and distinction with which he fulfilled the duties of President during his five years of office. For these reasons, as well as for those

personal qualities which won for him so many friends, the Council believe that his loss will be long felt and deeply mourned."

The PRESIDENT stated that the vacancy in the Council occasioned by the death of Sir William MacCormac would be filled up at the annual meeting for the election of members of Council in July, 1902.

The PRESIDENT reported the delivery of the Bradshaw Lecture on Dec. 11th by Mr. T. R. Jessop, the subject of the lecture being, "Personal Experiences in the Surgical Treatment of Certain Diseases." The best thanks of the Council were given to Mr. Jessop for his lecture and he was requested to publish it.

The President was nominated as the representative of the College to attend the Jubilee of Owens College, Manchester, on March 12th and 13th, 1902.

The following motions were passed in reference to the resolutions<sup>1</sup> carried at the annual meeting of Fellows and Members:—

1. That the Council having fully considered the resolution moved by Dr. Thomas Morton, seconded by Mr. Joseph Smith, and carried by 30 votes to 2, are of opinion that it would be most undesirable to re-open the question of the representation of Members on the Council.
2. That the mover and seconder of Resolution No. 2 be informed that the resolution has been placed before the Council.
3. That the mover and seconder of Resolution No. 3 be informed that if the British Medical Association should officially forward a copy of their Bill for the amendment of the Medical Acts, if there be one, the Council will be prepared to give it their earnest consideration.
4. That, as it is essential that the representative of the College on the General Medical Council should be a member of the Council of the College, the Council of the College are of opinion that the election should remain in their hands.

## METROPOLITAN HOSPITAL SUNDAY FUND.

UNDER the Presidency of the Lord Mayor the annual general meeting of the constituents of this Fund was held in the Council Chamber of the Guildhall on Dec. 16th.

The report of the Council for the year ending Oct. 31st, 1901, stated that since the publication of the last report the friends and members of the Hospital Sunday Fund, in common with all the inhabitants of the Empire, had had to mourn and regret the death of their late beloved Sovereign, Queen Victoria, who had been patron of the Fund since its establishment, and that the King had accepted the position of patron. The amount collected during the year was £54,731 18s. 3d., being £2738 4s. 9d. in excess of the amount collected in 1900, and, with the exception of 1895, when the Fund exceeded £60,000, the highest amount yet recorded. The total collected by congregations of various denominations amounted to £36,388 6s. 4d. Prebendary Ridgeway of Christ Church, Lancaster-gate, again headed the list of contributors with £1317; Canon Fleming of St. Michael's, Chester-square, collected £1233; and Prebendary Storrs of St. Peter's, Eaton-square, £652. There was an increase this year of £532 in the collections from congregations and 16 more congregations had collected. Mr. George Herring for the third time had sent his munificent donation of £10,000. Sir Frederick L. Cook, Bart., M.P., had sent a special donation of £4000. Sir Savile Crossley, Bart., had again generously contributed £500 (tenth donation); "A. G. P.," £200; and "Delta" had sent his twenty-third donation of £200.

The LORD MAYOR, in opening the proceedings, said that the constituents of the fund had suffered a heavy loss by the death of the great, good, and noble Queen Victoria, who was its patron from the commencement, and they owed a debt of gratitude to His Majesty for having agreed to become patron of their great work. There was every reason to be thankful for the response made to their appeal for contributions this year. The amount received was very near £55,000, an increase over last year, and with the exception of 1895, when special reasons operated to raise the income to £60,000, it was the highest amount yet recorded. They had again to thank Mr. George Herring for a donation of £10,000, and also Sir Frederick Cook, M.P., for £4000, and Sir Savile Crossley for his tenth donation of £500. These large and noble gifts were given because the donors thoroughly appreciated the fact that the work of the Fund deserved the greatest support and sympathy.

The Rev. C. H. GRUNDY moved the adoption of the report, remarking that those who were most associated with the fund were each year more and more impressed with the business-like way, and with the justice, insight, and enthusiasm with which the fund was conducted.

The Rev. Dr. RIGG, in seconding the motion, trusted that under the care and support of the Lord Mayor the fund would next year take another step upon the past.

A speaker, rising in the body of the council chamber, said

<sup>1</sup> THE LANCET, Nov. 23rd, pp. 1460 and 1461.

that as one who moved about a good deal among the churches he was anxious to know whether the committee were perfectly clear with regard to the allocation of the money. In connexion with the Prince of Wales's Fund a good deal of dissatisfaction had been occasioned in consequence of certain of its funds being granted in support of medical schools. A report was going about among the churches that this fund did the same, and, if proved to be true, it would seriously interfere with the gifts of the congregations next Hospital Sunday. He wished to know whether any of the money of this fund had been diverted from the wards of hospitals for the support of medical schools.

Sir SAVILE CROSSLEY (honorary secretary to the Prince of Wales's Hospital Fund) denied that the funds of the Prince of Wales's Hospital Fund had been given in support of medical schools.

The LORD MAYOR said that the question appeared to be whether the committee were justified, before making certain grants to hospitals, in finding out whether the money would be applied to the maintenance of the hospital proper or the medical schools. His answer was that they had nothing whatever to do with the matter. The money was allocated for the grand whole, and he thought that duty was equally done to their own generation and those who came after them whether the money was used for the relief of afflicted mankind in the wards or in bringing the medical schools up to date.

The report was then adopted.

On the motion of Mr. HAY CURRIE, seconded by Sir SAVILE CROSSLEY, the laws of the constitution were passed. Incidentally Mr. Currie referred to the illness of the secretary of the fund which, he said, they all regretted.

On the motion of the Bishop of BARKING, seconded by Sir BORRODAILE SAVORY, the Council for the year 1901 was re-elected for the year 1902, with the Right Rev. the Bishop of Islington, the Honourable Rupert Guinness, C.M.G., Sir Frank Green, Bart., and Mr. J. T. Scriven to fill vacancies.

Archdeacon SINCLAIR proposed that June 15th should be fixed for Hospital Sunday, 1902, and that the cordial coöperation of all ministers of religion within the metropolitan area should be again invited in the usual way.—Dr. ADLER seconded the proposal, remarking that as next year was the coronation year there was every reason to hope that the collection would be a record one. He trusted that the sum collected would reach nearest to the ideal amount of £100,000.

On the motion of Mr. F. H. NORMAN, seconded by Dr. J. G. GLOVER, a hearty vote of thanks was awarded to the Lord Mayor who, in responding, said he yielded to none in his desire to further the great work of the Metropolitan Hospital Sunday Fund.

## NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

A SPECIAL general meeting of Governors and subscribers was held at noon on Dec. 12th, at the National Hospital for the Paralyzed and Epileptic, Queen-square, Bloomsbury, to consider the Draft Rules for the constitution of the hospital drawn up by the committee appointed by the Governors to make such arrangements as were necessary for dealing with all matters consequential upon, or arising out of the adoption of, the resolution at the special general meeting of the Governors and members of the hospital held on July 6th, 1901, that the report of the Committee of Inquiry be adopted.

The Hon. SYDNEY HOLLAND, having taken the chair said: This meeting is called to reject or accept the proposals of the Reconstruction Committee, the committee appointed in consequence of the decision of Sir Edward Fry's Committee of Inquiry. I ask Mr. Green as chairman of the Reconstruction Committee to move the adoption of the report and I ask him for the purposes of convenience to divide that report into two parts. The first part deals with the reconstitution of the hospital and the second with the pension for Mr. Rawlings.

Mr. MELVILL GREEN: I myself would have suggested, if you had not done so, that the report be received in two parts because of the reasons that you have given. All I have to move now is that the report of the committee of which I have had the honour of being chairman, so far as it relates to the repeal of the rules that now exist and the creation of new ones, be adopted, and that the rules of this hospital be repealed and the new rules adopted accordingly. I am sorry not to be able to stop at this point altogether, but I am afraid it has become necessary to say a little more. The rules carry out in substance the report of the Committee of Inquiry. They do a little more and they do a little less. The committee has taken the opportunity of making a few small alterations in the existing rules on some points not touched upon by the Committee of Inquiry, and I do not think I need say anything about them unless anyone wants me to, as it will waste time to go through details about which we are all agreed. In the same manner

we have done a little less, as we have pointed out in our report. We have pointed out in our report that we advise that the existing by-laws be abolished *en bloc* and that the Board of Management, all the members of which it will be observed must be elected on the coming into force of the new rules, be left to make such by-laws as they may from time to time find to be necessary. We are not able to advise the governors to go quite so far as the Committee of Inquiry recommended in paragraph 106 of their report, which suggested that new by-laws should not be effective until confirmation by a general meeting. By Rule 39 we have provided that new by-laws shall be immediately effective, but that unless they are confirmed by the following annual general meeting they shall be annulled. We vary in that respect and that, I think, is the only point of variation of real consequence. I believe we were unanimous in thinking that it would work with greater convenience than if we had allowed 12 months to elapse before the Board could make a by-law which they saw was useful. I might add that the committee were all of this opinion, that the rules as laid before you now are not only those that will work, but those that under the circumstances in which we find ourselves are the best that can be provided, and I think they are exceedingly good. We have certainly made sure of the representation of the medical staff on this committee. We have certainly made sure that the office of director, which has been at the bottom of all the friction that has arisen, should be abolished (loud cheers), and I should have been content to have been able to stop at this point. But we have all received a circular from the Board of Management addressed to us under the signature of Mr. Russell whom I am glad to see here and who will be able to explain it if I have misunderstood it. I do not know exactly what members of the board may have been present when this circular was passed, or how far it represents the board, it certainly does not represent them all, because Mr. Pearman and Mr. C. F. Campbell, who are part of the committee for which I am speaking, have assented to the rules being carried *en bloc* that are before you in the report, the adoption of which I am now moving. The committee took the precaution after we had finished to send the rules to every member of the board in order that before we asked that this meeting might be called we might learn whether there was anybody who thought the rules were unworkable or were objected to, and until I received the circular from the board I was under the impression that there would be no doubt as to their being carried unanimously. But we have received the circular and I cannot help referring to it. I am sorry to see it because it prevents me from abstaining from referring to the past. It is not my fault, it is Mr. Russell's and those gentlemen who authorised him to sign and send this circular out. This circular has produced a most unfavourable impression on my mind towards the capacity of the Board of Management for managing the affairs of the hospital.

The CHAIRMAN: I am sure, Mr. Green, you will excuse me, but I do not see that it will advance matters a bit to throw mud at the other side, because if you make remarks like that it will lead other people to make remarks, and I really do not see how this meeting is ever to come to a decision or how we are to do any business if we begin that sort of thing. We are here to discuss the rules of the hospital and the advisability of their adoption.

Mr. GREEN: We have had this circular sent to us to influence us today. You will have to hear from my mouth or from some other person's mouth the reasons why it should or should not influence us.

The CHAIRMAN: I am sorry, but I can only give you my ruling.

Mr. GREEN: This circular discloses this, that the persons on whose behalf it was signed are perfectly satisfied with the management of the hospital as it was before these disturbances two years ago. It discloses that perfectly, and that we have seen all along to be the case. It points out to us—if I may paraphrase the circular—and seems to me to say this: we the Board tried to maintain the old system. We made every effort to do so until we saw we were beaten. We did not agree and we would not agree to a searching inquiry until we saw we were about to be beaten, and then we withdrew our motion in favour of Mr. Green's amendment for a complete inquiry. Since then much light has been thrown on the reason why the Board struggled so hard that there should not be a searching inquiry.

The CHAIRMAN: I must rule this discussion as really out of order. I think it is a very great pity that you do not adopt my suggestions to deal simply and solely with these rules and not to criticise this circular. There is a very great deal of difference between criticising the circular in the sense of answering it and doing what you are now doing which will necessarily lead to answers from the other side. I cannot rule a man out of order if he gets up to answer you, therefore I do ask you from the chair to keep to the argument and nothing else.

Mr. GREEN: I will endeavour to do that. This circular admits that the two great points that I have mentioned have got to be maintained and then the circular goes on to try and water them both down. The medical staff are to be represented on the board. Very well then. Look at the bottom of page 2 of the circular. There are two suggestions made about the medical staff. One suggestion that we make in the Draft Rule 10 is that every member of the staff shall be at liberty to come into this room and to speak and vote at any meeting of governors. It does not seem to me a very remarkable thing. What does the board's circular say? Oh, no, make a man serve seven years on the staff before you allow him to do that. Cut down the influence of the staff all you can. And then what do they say further, that in the quorum for a general meeting the medical staff shall not count. (A Voice: Why?) Why, indeed! Unless it is to do away with a fair and reasonable position for the staff, and unless it is to carry out the idea of keeping the staff in a sort of inferior position—in fact, looking upon the staff, as was done before, as servants of the institution and nothing more. It seemed to me as if this circular had in its mind the idea of keeping the staff down and making their position almost impossible. The circular goes on to say that the proposed Rule 41 "provides for the appointment of a secretary, a senior house physician, and a lady superintendent, who shall have the sole control of their separate departments under the board. The duties and functions of these three officers must necessarily overlap, and in the absence of some authority to whom instant and effective reference and appeal can be made upon matters of daily and hourly occurrence as to which differences of opinion may arise, confusion must ensue with consequent injury to the interests of the patients and of the institution." In all the years that are passed for seven hours of the day Mr. Rawlings has been on the spot to prevent confusion, but no confusion arose during the other 17 hours. Why should we, then, be afraid of confusion during the 24 hours? It is a

fact that the secretary-director was here only seven hours in the day and these things must surely sometimes arise before 10 in the morning and after five in the evening, and yet we had not heard of the confusion. Now the next sentence is this; it is practically all one: "The board feels strongly that there should be some one person responsible to the board for the daily conduct of affairs at the hospital." What is that but bringing back the secretary-director? That is the very thing that is not to be done. The staff are not to be belittled and the director is not to be brought back, but the two things agreed on must be carried out in their entirety.

Sir JAMES CRICHTON BROWNE, in seconding Mr. Green's motion, said: In expressing a hope that peace and harmony will henceforth prevail in the wards of this hospital I think the spirit of the report of the Committee of Inquiry was eminently conciliatory. In that spirit it was certainly accepted by the medical staff and by the governors who supported the staff. There can be no doubt that the report was favourable to the views taken by the staff. On the adoption of the report of the Committee of Inquiry by the Governors there were no ejaculations of triumph on the part of the medical staff and on the part of those governors who supported them. Indeed, the medical staff and the governors who supported them accepted the report with loyalty and unanimously joined in taking the measures necessary to give effect to the recommendations of that report. I think, Sir, they have a right to expect that the Board of Management will loyally accept the report and will loyally accept the drafted rules for the reconstitution of the hospital proposed by a thoroughly competent committee upon which the Board of Management was fully represented. At any rate, I think they have a right to expect that there shall be no attempt by hints or by suggestions or by amendments of these rules to get behind the report of Sir Edward Fry's committee and render some of its recommendations nugatory. I wish to call your attention to one point in this circular from the Board of Management; they say it is a very serious proposal to divide the work of carrying on the daily administration of the hospital between three independent co-ordinate authorities, those of the secretary, the senior house physician, and the lady superintendent. They say that this arrangement is certain to lead to collision and to difficulties, but they seem to forget that all those three different authorities would have a central authority and would be responsible to the newly-appointed board of management, and they seem to forget that this very same tripartite arrangement has been tried and found to work exceedingly well in many large public hospitals in this country. It seems to me there can be no difficulty whatever in making absolutely distinct and well defined the duties of these different authorities. There would be no necessity for overlapping at all, and we might just as reasonably object to there being different departments in the Government, such as the War Office, the Home Office, the Foreign Office, who all have their centre in the Cabinet, as to object to the three officers having their central authority in the Board of Management. I do not think there can be any difficulty. If there is to be any departure from the proposed rule I hope that Mr. Russell will bear in mind that this is a medical institution in every department of which the medical staff must have paramount influence. If one of these three authorities is to be supreme it should be that of the senior house physician. The policy suggested by these hints thrown out in this circular from the board seems to me to be exactly what Mr. Green has indicated, that is, to pave the way for the introduction of a Hawlings the second into this hospital. Now, if there was one conclusion in Sir Edward Fry's report it was that there should be an end of the autocratic power of the secretary-director. I must say, Sir, I am anxious to avoid any unnecessary friction, as you have most wisely suggested, but I must say that this circular, which I regard with Mr. Green as most unfortunate, does necessitate a little plain speaking. It seems to me an attempt from the way in which it is worded to emphasise and put into prominence everything that was favourable to the Board of Management in Sir Edward Fry's report and to ignore everything else. It echoes the statement in the report no doubt correctly enough that, generally speaking, the hospital was in good order, that the patients were satisfied with their food, treatment, and nursing, and their condition generally. It also emphasises the statement contained in the report that the defects in management to which attention was drawn by the statement of the medical staff were deserving of notice and correction, but they were never sufficient in magnitude and frequency to render the treatment in the hospital otherwise than good as a whole. But, gentlemen, that was not all and I must say that, having read that report of Sir Edward Fry's again, I do regard it as a very serious censure on the Board of Management. I do not think that such a severe censure has ever been made on a hospital committee before, but I must ask you to bear in mind that the report distinctly stated that—

The CHAIRMAN: I do ask you from the chair not to refer to the past. It is not the slightest good. We do not advance one little bit by referring to the bad management of the past or to the bad conduct of anyone. I do ask you on this occasion to fight for peace.

Sir JAMES CRICHTON BROWNE: I assure you I have no desire to fight on the present occasion. I only regret very much that the harmony of the proceedings should have been disturbed by this most unfortunate document. I refer, however, to the main fact in Sir Edward Fry's report and that was the decision arrived at that there had not been proper facilities for intercommunication between the medical staff and the board and their recommendation that two members of that staff should be appointed to the board. That seems to me to be the crucial point. That was the main position on which the Board of Management took their stand, and I am at liberty to say that one of the members of the board distinctly told me that rather than accept a single member of the staff on the board the board as a whole would resign. They have not resigned. They have taken the recommendation very tamely, with a complacency that is more creditable to their fortitude than to their pride. But at this moment Mr. Russell cannot refrain from another hit at the medical staff through the medical profession. For the suggestion is that provision should be made in Rule 31 that of the 10 ordinary members of the board not one under any circumstances, besides those appointed by the staff, shall be members of the medical profession. That is, I think, a suggestion most unfair in restricting the choice of governors and it is a gratuitous insult to the medical profession. We may have in the future some medical man willing to bestow, say, £20,000 on a charity; is it likely that he will be anxious to give the money to an institution in which medical men are excluded

from any share in the management? I think not. Let me point out the inconsistency of the suggestion. The board have told us they have had medical men on the staff, they have had Dr. J. S. Ramskill and Dr. Russell Reynolds, and they admit that they rendered conspicuous and admirable service. The board say that these gentlemen were opposed to the views of the medical staff, that they sided generally with the policy of the lay members of the board, and, therefore, gentlemen, I infer that there need be no fear in appointing medical men on the board and there will be no unfair influence exerted by them at the board.

Sir HENRY BURDETT: Rule 41 provides, "There shall be a secretary, a senior house physician, and a lady superintendent who shall have the sole control of their respective departments under the board, and whose duties shall be defined by the board and embodied in the by-laws. It shall be their duty to report to the board and in all cases of difficulty to consult, so far as possible, the chairman, or failing him the vice-chairman, and to act in accordance with his advice." Is it the intention of the committee who made this recommendation that these by-laws shall embody the recommendation of Sir Edward Fry's report on p. 17 to the following effect: "that a resident medical superintendent should be appointed as a permanent official, who should not only discharge the duties of the senior house physician, but should also be the responsible and resident head of the whole institution under the Board of Management?"

The CHAIRMAN: Your question is whether the intention of the committee was that the board should carry out the recommendations of Sir Edward Fry's report.

Sir HENRY BURDETT: They recommend the appointment of a senior resident physician. I want to know if they carry out the recommendation that he shall be the resident medical superintendent.

The CHAIRMAN: It is obvious that that question cannot be answered here; it is a question for the new board to decide. The committee have decided that these three officials are to have co-ordinate powers and to have sole control of their respective departments, and their duties are to be defined by the board and embodied in the by-laws, and therefore that that question must be left entirely for the by-laws.

Sir HENRY BURDETT: I propose to move an amendment. I think it is a matter involving a very important principle and the whole future of the institution will depend upon the decision of this question, and my amendment is that we should add to this by-law words which will embody the recommendation of Sir Edward Fry's report—namely, recommendation No. 2 on p. 17—that a resident medical superintendent should be appointed as a permanent official. I therefore propose to put in after the words "senior house physician" "who shall act as resident medical superintendent, to be appointed as a permanent official, who shall not only discharge the duties of the senior house physician but shall also be the responsible and resident head of the whole institution under the Board of Management." Those are the words of Sir Edward Fry's committee, and I will beg you to keep your attention on that, and I do so for this reason, because in an institution of this kind where we have patients who from the very nature of their malady are long resident in this institution it is essential that there should be a head. I do it, too, because in this institution we have had a great dispute between the board and the staff which I do not propose to go into, which has centred round the rights of the medical profession, and I believe that there is no doubt that in an institution like this it is most important for everybody that you should have a responsible head and that that head should be a medical man. I hope that we may not have a division on this, but that we may accept the recommendation which has been made by Sir Edward Fry simply as men of business. It is giving the medical staff more than they ask for.

Mr. R. A. BENNET: I will second the amendment.

Dr. CHARLTON BASTIAN: I should like to say something first of all in favour of this Rule 41. I happen to have been for 30 years a physician at a hospital where practically what is intended in this rule has had effect, and during the whole of that time I may say that I have never known of any difficulty whatsoever arising in regard to it. There has been at University College Hospital, the hospital to which I allude, a resident medical officer, and the resident medical officer has had the supreme control of all affairs connected with the medical department, the general medical superintendence of the hospital. There have been a sister superior and a lady superior and a secretary, and there has never been any sort of collision or difficulty that I have heard of with these three officers working in that way. Of course, the committee of the hospital have met once a week and any question that would have to be referred to them could then be always referred to them, and here I take it also that a board would probably meet, or if not a board a committee of that board once a week, and that any question that arose would be decided then, but there is no likelihood at all that there would be any difficulty if you have a man with some experience as senior house physician or resident medical officer, or whatever he may be called. In regard to another point, I think it is a matter of considerable importance whether we have a permanent medical superintendent or whether we have a man whom, I think, it would be better to call the resident medical officer, elected for a short term of years. I think it would be a decided mistake to have a permanent medical officer in this hospital. In hospitals there are always men who have gone through the appointments of house surgeon and house physician, and who have, perhaps, held other appointments at other hospitals, who know perfectly well all the arrangements and all that is necessary to carry on the work of a hospital properly, and those are the men who come up for such an appointment as that of resident medical officer of a hospital. I believe there are several hospitals which are practically managed in that way. A man that has had this experience at hospitals is elected as resident medical officer and comes in for two or three years—I think it is three years at University College—and he is subject to re-election if needful. There is never any difficulty in getting a good and suitable man of that kind for those posts, and the affairs of the hospital can be perfectly well carried out with such arrangements, the resident medical officer being the authority to whom medical questions are brought, the matron and secretary attending to their own work. I believe it is much better that we should not have a permanent medical superintendent but a resident medical officer, who shall be elected for two or three years and be subject to re-election. It is really absolutely necessary that we should have some increase in this hospital. There are at present only two resident medical officers, and this hospital is one in which an enormous amount of work devolves upon such officers, far more than in most hospitals. In the first place

because of the very great complexity of the cases and the long histories. Therefore, I think there would be abundant work for a third man. The resident medical officer would have general superintendence and some part of the work of the house physician.

Mr. GREEN: I should like to point out exactly to the governors why I hope the rule will not be altered. There is no rule to which the committee gave more thought, and we came to the conclusion ultimately that this was the best rule. I think we gave twice as much thought to this rule as to any other. I think Sir Henry Burdett has not quite grasped the recommendations of the Committee of Inquiry of Section 79. He only reads the second alternative and says, Do you mean to have a resident medical superintendent appointed as a permanent official? We have, however, the other alternative, which we have adopted. We are following the other recommendation of the Committee of Inquiry and it was that the hospital should be carried on under the following schemes of government. The secretary should be entrusted with the ordinary duties of a secretary and that in addition he should be a chief executive officer of the Board of Management—do not think that means a director back again—but should be restrained from interfering in any way with the lady superintendent and the members of the medical and resident staffs and with all persons and things placed under their control, and that the house physician, lady superintendent, and secretary should be required in all cases of difficulty to consult, so far as possible, the chairman or vice-chairman of the board and to act in accordance with his advice. That is what has been carried out. We have made this qualification, that we have not put in any word about restraint. Instead of saying that anyone shall be restrained we have said what the duties shall be. We shall not put a man under the fetter of being restrained in such a manner. In one sense things must overlap, and in one sense everything is concerned with the secretary because nearly everything comes down to the drawing of a cheque and the secretary must know what he is drawing a cheque for. You cannot rid him of that knowledge and we have not gone quite so far as that, but we have done what we believe and all of us believe to be the best practical thing and I do hope there may be no alteration whatever to this rule.

Sir FELIX SEMON: May I say as one of the members of the Reconstruction Committee that we are all heartily in accord with the words of Mr. Green? We are perfectly satisfied with the arrangements as recommended by that committee and the medical staff will do everything to avoid friction and give a fair trial to the proposal.

The amendment, proposed by Sir HENRY BURDETT, was put to the meeting and declared lost.

Mr. GEORGE W. E. RUSSELL: I at any rate shall not give any trouble in respect to the direction laid down at the beginning of the meeting by the Chairman about wasting our time. It requires a very pugnacious spirit to retain its pugnacity for two years, and for my own part nothing can be more amicable as regards all personal relations than my present intention. If Mr. Green and Sir James Crichton Browne thought that I was, to use a popular phrase, going to be drawn by their allusions to the circular I am afraid I shall have to disappoint them. It is quite true that it was signed by me—my connexion with the matter consisted in that only. I did not suggest or contribute a line or a word to it. I do not say whether I agree or not with its tenor, but it is not due to me that it is issued to the governors; I merely signed it *pro hac vice et pro re nata*, being placed in the chair at the time, and there my connexion with it ends, and I will not follow any of the suggestions made, nor is it necessary for me to take any further notice. I must not be misunderstood to express any protest against my colleagues who did agree with it. In what I am going to say I think it is a matter of duty to mention that my colleagues have no part or lot in the course which I take as an individual. I am not speaking for the board or behind the board or with any tacit understanding of the board or at the suggestion of the board; the same disclaimer I must make with regard to two officials—namely, Mr. Burford Rawlings and Mr. Bower. My object in rising is to meet the motion moved by Mr. Green and seconded by Sir James Crichton Browne with a direct negative. For my own part I will make my remarks as short as possible. I will simply state that the rules are well as they are. I do not say unimprovably good—that would be ridiculous—but only susceptible to improvement in small details which could be very well dealt with by the board as it already exists or as it will be when altered at any subsequent election. The great fundamental question which underlies the whole trouble was the question whether two members of the medical staff should be admitted to seats on the board. It is within the recollection of those who hear me to-day that throughout I—with no thought of personal reference to anybody, but simply for the sake of the hospital—have been of the opinion deliberately formed that to grant the demand of the medical staff for two seats on the Board of Management would be attended with inconvenient consequences. Sir James Crichton Browne made a direct personal reference to myself in this matter and I hope I shall be allowed to make some answer to him. The sense of it was that the board had altered its attitude with a zeal which did more credit to its fortitude than its pride. I am entirely in agreement with him. It will be in the recollection of many who hear me that at the meeting held early in August, 1900, I was in the chair speaking on behalf of the board in the strongest possible sense hostile to the admission of two members of the medical staff to the Board of Management. At that time I spoke, so far as my belief goes, the unanimous sentiments of the whole board save and except one member. Then came the autumn of that year and the long controversy in the columns of the *Times*, and when the board resumed its deliberations in the fall of the year it became apparent that a very considerable change had passed over the mind of the board. It was not, as far as I know, that anyone thought it desirable to admit these two members to the board, but the board had now come round to think it desirable to submit the matter to inquiry. In August we were under no circumstances ready to submit the matter to any external authority, and, as everyone here knows, it was only during the autumn of that year that a complete change came over the minds of the board in favour of submitting the question to arbitration, and I confess I think that the good-natured sarcasms of Sir James Crichton Browne were justly merited and justly applied, but as a matter of personal explanation I would like to say that whatever change occurred in the mind of my colleagues no change occurred in my own.

A GOVERNOR: You ruled that the discussion should be for the future and not about the past. The present speaker is referring to the past.

The CHAIRMAN: I think that Mr. Russell is giving a personal explanation of his own views to-day in opposing these rules and I think he

is quite justified in doing so. Whether it is wise for him as an individual is quite another thing.

Mr. RUSSELL: If the gentleman who has just spoken is at all conversant with public meetings he would know that everybody is entitled by the courtesy of such meeting to make a personal explanation.

The GOVERNOR: Thank you for the information.

Mr. RUSSELL: As far as I am concerned my withers are quite unwrung by Sir James Crichton Browne's criticism. I only wish to make clear to those present that the fact that I have been so constantly in the chair made it impossible for me to express my opinion or try to enforce it upon my colleagues as I should like to have done if I had been merely a member of the board, because the chairman is not entitled, I think, to press his own opinion, and I have been swamped so far by the opinion of my colleagues, who came to the conclusion that the question should be submitted to arbitration. I strongly hold that no case has been made out for revolutionising the rules of the hospital under which it has lived and flourished up till now and to substitute for them a new constitution. I move a direct negative to Mr. Green's proposition.

The CHAIRMAN: It has been moved and seconded that the report of the Committee of Reconstruction be adopted.

The motion was put to the meeting and declared carried.

The CHAIRMAN saying: I declare that that part of the report dealing with the rules is carried, and these rules are adopted (loud applause).

Mr. RUSSELL: I wish to call your attention to the existing rule No. 4, paragraphs 6 and 7, which regulate the demand for a ballot. This cannot be granted unless five governors demand it.

Five governors did not demand a ballot and the business of the meeting was continued.

The meeting then proceeded to the consideration of the second portion of the report of the Committee of Reconstruction dealing with the proposed pension for Mr. Burford Rawlings. The following gentlemen took part in the protracted discussion on this subject: The CHAIRMAN, Mr. GREEN, Mr. J. H. NELSON, Mr. J. WIGAN, Sir JOHN PAGET, Mr. J. PEARMAN, and Sir H. BURDETT. It was ultimately agreed that in addition to a pension of £450 Mr. Burford Rawlings should be presented with the amount of one year's salary, £800.

The usual vote of thanks to the Chairman ended the meeting.

## THE ELECTION OF DIRECT REPRESENTATIVES.

WE have received this message from Dr. W. Bruce addressed to the medical profession of Scotland:—

Dr. Bruce begs to thank the Scottish registered medical practitioners to the number of 975 who by their votes placed him at the top of the poll at the late election. Especially he wishes to express his most grateful thanks to the large number of those who have taken the trouble to personally congratulate him on his victory.

Now that the fight is over he assures the constituency generally of his desire to give his utmost energies towards advancing their interests in so far as it may be in his power to do so during his term of office.

We have also received the following letter from Dr. C. W. Hayward:—

To the Editors of THE LANCET.

SIRS,—I trust you will permit me to thank, through the medium of your columns, all those members of the medical profession who were kind enough to record their votes for me at the recent election. Considering the lateness of the hour when I came forward, and the consequently exceedingly limited opportunities I had of placing my views personally before the electorate, I believe that the number is a record for a candidate's first appearance. I therefore hope that on some future occasion they will again do me the favour of voting for me, and that with their votes as a nucleus I may be able to obtain sufficient new supporters to enable me to devote myself to doing the utmost of which I may be capable in the true interests of the general medical profession.

I am, Sirs, yours faithfully.

CHARLES W. HAYWARD.

Grove-street, Liverpool, Dec. 15th, 1901.

To the Editors of THE LANCET.

SIRS,—The official figures published by the returning officer show that the number of votes recorded for me at the recent election of Direct Representatives was 5569 and not 5369 as stated on page 1693 of THE LANCET of Dec. 14th.

I am, Sirs, yours faithfully,

Gilson-square, N., Dec. 18th, 1901.

GEORGE BROWN.

WE regret to have omitted the name of Mr. H. Betham Robinson in giving a list of those members of the surgical staff of St. Thomas's Hospital who were present at the funeral of Sir William Mac Cormac.

## VITAL STATISTICS.

## HEALTH OF ENGLISH TOWNS.

In 33 of the largest English towns 5752 births and 4076 deaths were registered during the week ending Dec. 14th. The annual rate of mortality in these towns, which had been 21.3, 20.3, and 19.5 per 1000 in the three preceding weeks, further declined last week to 18.5 per 1000. In London the death-rate was equal to 18.5 per 1000, while it averaged 18.6 in the 32 large provincial towns. Among these large towns the lowest death-rates were 11.0 in Blackburn, 12.8 in Croydon, 13.3 in Derby, and 14.3 in Huddersfield and in Bradford; the highest rates were 21.6 in Sheffield, 22.1 in Preston, 22.6 in Birmingham, 22.7 in Plymouth, and 24.7 in Oldham. The 4076 deaths in these towns last week included 414 which were referred to the principal zymotic diseases, against 473, 434, and 418 in the three preceding weeks; of these 414 deaths 145 resulted from measles, 73 from diphtheria, 55 from whooping-cough, 40 from "fever" (principally enteric), 38 from scarlet fever, 36 from diarrhoeal diseases, and 27 from small-pox. No death from any of these diseases occurred last week in Cardiff; in the other towns they caused the lowest death-rates in Croydon, Plymouth, Nottingham, Huddersfield, and Bradford, and the highest rates in Birmingham, Norwich, Birkenhead, Liverpool, and Blackburn. The greatest proportional mortality from measles was recorded in Norwich, Manchester, Oldham, Blackburn, Preston, Halifax, and Sheffield; from scarlet fever in Newcastle; from whooping-cough in Liverpool; and from diarrhoeal diseases in Swansea and Burnley. The mortality from "fever" showed no marked excess in any of the large towns. The 73 deaths from diphtheria included 31 in London, six in Liverpool, five in Salford, three in Brighton, three in Portsmouth, three in Bristol, three in Birkenhead, and three in Sheffield. 26 deaths from small-pox were registered last week in London and one in Birmingham, but not one in any of the 33 large towns. The number of small-pox patients under treatment in the Metropolitan Asylums hospitals at the end of the week was 506, against 396, 427, and 474 on the three preceding Saturdays; 134 new cases were admitted during the week, against 141, 123, and 170 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 3336, 3278, and 3241 at the end of the three preceding weeks, had further declined to 3188 on Saturday, Dec. 14th; 332 new cases were admitted during the week, against 379, 320, and 376 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 582, 534, and 470 in the three preceding weeks, further decreased last week to 427, and were equal to the corrected average number. The causes of 52, or 1.3 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Leeds, Sunderland, and in 10 other smaller towns. The largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Manchester, Sheffield, and Gateshead.

## HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22.2 and 20.5 per 1000 in the two preceding weeks, rose again to 20.7 during the week ending Dec. 14th, and showed an excess of 2.2 per 1000 over the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 15.0 in Paisley and 16.1 in Leith to 21.6 in Glasgow and 24.8 in Dundee. The 660 deaths in these towns included 28 which were referred to measles, 15 to diarrhoea, 11 to "fever," nine to whooping-cough, four to scarlet fever, and three to diphtheria. In all, 70 deaths resulted from these principal zymotic diseases last week, against 85, 77, and 72 in the three preceding weeks. These 70 deaths were equal to an annual rate of 2.2 per 1000, which was 0.3 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of measles, which had been 29, 29, and 23 in the three preceding weeks, rose again last week to 28, of which 19 occurred in Glasgow, six in Dundee, and two in Paisley. The deaths from diarrhoea, which had been 21 in each of the two preceding

weeks, declined to 15 last week, and included six in Glasgow, five in Dundee, two in Edinburgh, and two in Perth. The deaths referred to different forms of "fever," which had been eight, nine, and 10 in the three preceding weeks, further rose last week to 11, of which seven were registered in Glasgow, two in Edinburgh, and two in Paisley. The fatal cases of whooping-cough, which had been seven and four in the two preceding weeks, increased again to nine last week, and included seven in Glasgow. The deaths from scarlet fever, which had been three and nine in the two preceding weeks, declined again last week to four, of which three were registered in Edinburgh. The three fatal cases of diphtheria showed a marked decline from recent weekly numbers. The deaths referred to diseases of the respiratory organs in these towns, which had been 186 and 180 in the two preceding weeks, further declined last week to 165, but were 29 in excess of the number in the corresponding period of last year. The causes of 22, or more than 3 per cent., of the deaths in these eight towns last week were not certified.

## HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23.8, 18.8, and 20.2 per 1000 in the three preceding weeks, declined again to 17.9 per 1000 during the week ending Dec. 14th. During the past four weeks the death-rate has averaged 20.2 per 1000, the rates during the same period being 20.2 in London and 19.8 in Edinburgh. The 129 deaths belonging to Dublin registered during the week under notice showed a decline of 16 from the number in the preceding week, and included one death from whooping-cough, but not one from any other of the principal zymotic diseases. The zymotic death-rate for the week was thus only 0.1 per 1000, against 1.9 in London and 1.6 in Edinburgh. In no previous week of this year had the number of deaths referred to the seven principal zymotic diseases been less than five. The 129 deaths in Dublin last week included 19 of children under one year of age and 34 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a decline of four from the respective numbers recorded in the preceding week. One death from violence and three inquest cases were registered, and 38, or nearly a third, of the deaths occurred in public institutions. The causes of seven, or more than 5 per cent., of the deaths in Dublin last week were not certified.

## VITAL STATISTICS OF LONDON DURING NOVEMBER, 1901.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality in each of the cities and boroughs in the county of London. With regard to the notified cases of infectious diseases it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to an annual rate of 11.6 per 1000 of the population, provisionally estimated at 4,543,757 persons in the middle of the year. In the three preceding months the rates had been 8.6, 12.4, and 13.8 per 1000 respectively. The rates were considerably below the average in Kensington, Hammersmith, Chelsea, Hampstead, Lambeth, Lewisham, and Woolwich; while they showed the largest excess in St. Pancras, Hackney, Holborn, Southwark, Bermondsey, and Camberwell. During the four weeks ending Nov. 30th, 413 cases of small-pox were notified in London, against 94, 157, and 347 in the three preceding months; 52 cases belonged to Holborn, 44 to Stepney, 43 to St. Pancras, 36 to the City of Westminster, 30 to Bermondsey, 28 to Finsbury, and 28 to Camberwell. The number of small-pox patients under treatment in the Metropolitan Asylums hospitals, which had been 74, 163, and 284 at the end of the three preceding months, had further risen to 427 at the end of November; the weekly admissions averaged 110, against 23, 44, and 72 in the three preceding months. The prevalence of scarlet fever showed a marked decline from that recorded in the preceding month; among the various metropolitan boroughs this disease was proportionally most prevalent in Southwark, Bermondsey, Camberwell, Deptford, and Greenwich. The Metropolitan Asylums hospitals contained 3186 scarlet fever patients on Saturday, Nov. 30th, against 2971, 3096, and 3281 at the end of the three preceding months; the weekly admissions averaged 352, against 288, 412, and 399 in the three preceding months. During the month under notice diphtheria was considerably less prevalent than in the preceding month; the greatest proportional prevalence of this disease occurred

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING NOVEMBER, 1901.  
(Specially compiled for THE LANCET.)

TOWNS AND BOROUGH.	Estimated population in the middle of 1901.	NOTIFIED CASES OF INFECTIOUS DISEASE.							DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.										Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.					
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.*	Whooping-cough.	Typhus fever.				Enteric fever.	Other continued fevers.	Diarrhoeal diseases.	Total.	Annual rate per 1000 persons living.
LONDON...	4,545,757	413	1692	1118	—	307	8	25	478	—	4041	11.6	73	201	38	140	53	—	53	2	64	632	1.8	6684	20.9	165
West Districts.																										
Paddington ...	144,154	8	50	41	—	2	—	1	12	—	114	10.3	—	—	—	—	—	—	—	—	2	12	1.1	194	17.5	140
Kensington ...	176,787	3	44	24	—	9	—	—	19	—	99	7.3	—	22	2	4	1	—	1	—	5	34	2.5	271	20.0	197
Hammersmith ...	112,619	13	17	23	—	6	—	1	9	—	69	8.0	2	10	—	2	1	—	2	—	3	20	2.3	156	18.1	134
Fulham ...	138,426	—	48	68	—	8	—	1	14	—	139	13.1	—	4	—	4	—	—	2	1	4	15	1.4	201	18.9	165
Chelsea ...	73,879	—	13	6	—	4	—	1	6	—	30	5.3	—	—	—	—	—	—	1	—	1	2	0.4	86	15.2	175
City of Westminster ...	182,502	36	41	21	—	15	—	—	16	—	129	9.2	9	5	—	2	—	—	1	—	1	18	1.3	268	19.1	141
North Districts.																										
St. Marylebone ...	133,080	10	37	18	—	8	—	—	12	—	85	8.3	—	—	—	3	—	—	—	—	1	7	0.7	162	15.9	75
Hampstead ...	82,287	1	6	8	—	4	—	—	5	—	24	3.8	1	—	—	1	—	—	—	—	1	3	0.5	68	10.8	110
St. Pancras ...	235,297	43	98	84	—	20	2	2	31	—	280	15.5	8	8	1	11	—	—	3	—	1	32	1.8	371	20.6	122
Islington ...	335,325	13	151	90	—	30	2	2	26	—	314	12.2	2	38	3	18	1	—	6	—	1	69	2.7	505	19.6	147
Stoke Newington ...	51,328	2	21	14	—	4	—	1	6	—	48	12.2	—	—	—	1	1	—	1	—	—	3	0.8	53	13.5	128
Hackney ...	219,780	4	98	114	—	12	1	3	31	—	263	15.6	1	—	3	7	1	—	2	—	2	16	0.9	285	17.5	127
Central Districts.																										
Holborn ...	69,905	52	19	11	—	3	—	—	12	—	97	21.4	14	—	—	3	—	—	—	—	1	18	4.0	125	27.5	168
Finsbury ...	101,233	28	39	19	—	10	1	—	10	—	107	13.8	4	9	3	2	6	—	1	—	3	28	3.6	203	26.1	174
City of London ...	28,627	1	11	6	—	2	—	1	1	—	22	10.8	—	—	—	—	—	—	1	—	1	2	1.0	43	21.0	121
East Districts.																										
Shoreditch ...	118,554	2	36	34	—	9	1	—	18	—	100	11.0	1	5	1	7	3	—	—	—	2	19	2.1	232	25.5	228
Bethnal Green ...	129,700	7	52	37	—	13	—	—	16	—	125	12.6	—	8	1	6	1	—	2	—	—	18	1.8	242	24.3	245
Stepney ...	298,884	44	118	67	—	28	—	4	42	—	303	13.2	7	4	—	8	6	—	2	—	4	31	1.4	575	25.1	223
Poplar ...	168,387	19	50	53	—	19	—	—	18	—	159	12.3	4	5	—	11	3	—	2	—	4	29	2.2	306	23.6	184
South Districts.																										
Southwark ...	206,219	25	100	51	—	14	—	2	40	—	232	14.7	6	8	2	6	4	—	1	—	7	34	2.1	403	25.5	235
Bermondsey ...	130,348	30	64	22	—	11	—	1	17	—	145	14.5	4	—	4	5	3	—	5	—	2	23	2.3	266	26.6	209
Lambeth ...	302,460	15	88	41	—	18	—	1	20	—	183	7.9	2	26	6	2	4	—	2	—	4	46	2.0	474	20.4	140
Battersea ...	169,394	7	52	29	—	11	—	1	15	—	115	8.9	1	32	1	1	5	—	5	—	2	47	3.6	270	20.8	168
Wandsworth ...	233,943	8	101	68	—	5	—	1	27	—	210	11.7	1	8	—	9	4	—	1	1	4	28	1.6	289	16.1	159
Camberwell ...	259,897	28	175	71	—	15	—	1	19	—	309	15.5	6	1	5	11	2	—	4	—	2	31	1.6	383	19.2	144
Dept. ord ...	110,732	2	53	35	—	12	—	—	12	—	114	13.4	—	—	—	2	2	—	3	—	4	11	1.3	142	16.7	157
Greenwich ...	96,188	3	56	14	—	5	—	1	8	—	91	12.3	—	—	—	1	—	—	1	—	—	2	0.3	126	17.1	171
Lewisham ...	128,423	—	32	32	—	7	1	—	12	—	80	8.1	—	2	—	5	3	—	1	—	2	14	1.4	141	14.3	97
Woolwich ...	117,619	9	22	17	—	2	—	—	4	—	54	6.0	—	5	—	2	1	—	2	—	—	10	1.1	134	14.9	112
Port of London ...	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

\* Including membranous croup.

in Fulham, St. Pancras, Hackney, Poplar, Wandsworth, and Deptford. There were 1504 diphtheria patients under treatment in the Metropolitan Asylums hospitals at the end of last month, against 1336, 1499, and 1570 at the end of the three preceding months; the weekly admissions averaged 200, against 177, 248, and 243 in the three preceding months. The prevalence of enteric fever showed a marked decline from that in recent months; among the various metropolitan boroughs the greatest proportional prevalence of this disease occurred in St. Pancras, Islington, Finsbury, Bethnal Green, Stepney, Poplar, Bermondsey, and Deptford. The number of enteric fever patients under treatment in the Metropolitan Asylums hospitals, which had been 225, 292, and 291 at the end of the three preceding months, had further declined to 245 at the end of November; the weekly admissions averaged 32, against 42, 50, and 38 in the three preceding months. Erysipelas was proportionally most prevalent in St. Pancras, Hackney, Holborn, Shoreditch, Stepney, and Southwark. The 25 cases of puerperal fever notified during the month included four in Stepney, three in Hackney, two in St. Pancras, two in Islington, and two in Southwark.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various metropolitan boroughs, the deaths occurring in the public institutions of London having been distributed among the boroughs in which the deceased persons had previously resided. During the four weeks ending Nov. 30th the deaths of 6984 persons belonging to London were registered, equal to an annual rate of 20.0 per 1000, against 15.4 per 1000 in each of the two preceding months. The lowest death-rates in the various metropolitan boroughs were 10.8 in Hampstead, 13.5 in Stoke Newington, 14.3 in Lewisham, 14.9 in Woolwich, 15.2 in Chelsea, and 15.9 in St. Marylebone; the highest rates were 25.1 in Stepney, 25.5 in Shoreditch and in Southwark, 26.1 in Finsbury, 26.6 in Bermondsey, and 27.5 in Holborn. The 6984 deaths from all causes during the month included 622 which were referred to the principal zymotic diseases; of these 73 resulted from small-pox, 201 from measles, 38 from scarlet fever, 140 from diphtheria, 52 from whooping-cough, 52 from enteric fever, two from simple continued fever, and 64 from diarrhoeal diseases. The lowest death-rates last month from these diseases were recorded in Chelsea, St. Marylebone, Hampstead, Stoke Newington, Hackney, and Greenwich, and the highest rates in Kensington, Islington, Holborn, Finsbury, Bermondsey, and Battersea. The 73 fatal cases of small-pox greatly exceeded the average, and included fourteen in Holborn, nine in the city of Westminster, eight in St. Pancras, seven in Stepney, six in Southwark, and six in Camberwell. The 201 deaths from measles showed a slight increase upon the average number in the corresponding periods of the 10 preceding years; among the various metropolitan boroughs this disease was proportionally most fatal in Kensington, Hammersmith, Islington, Finsbury, Lambeth, and Battersea. The 38 fatal cases of scarlet fever were less than one-half of the corrected average number; the greatest proportional fatality from this disease occurred in St. Marylebone, Finsbury, Bermondsey, Lambeth, and Camberwell. The 140 deaths from diphtheria were 62 below the average number in the corresponding periods of the 10 preceding years; this disease showed the highest proportional fatality in Paddington, St. Pancras, Islington, Holborn, Shoreditch, Bethnal Green, Poplar, and Camberwell. The 52 fatal cases of whooping-cough showed a marked decline from the corrected average number; among the various metropolitan boroughs whooping-cough was proportionally most fatal in Finsbury, Shoreditch, Bermondsey, Battersea, and Lewisham. The deaths referred to "fever" last week numbered 54, against an average of 90 in the corresponding period of the 10 preceding years; the "fever" death-rate was highest in Fulham, Islington, Bethnal Green, Bermondsey, Battersea, and Deptford. The 64 fatal cases of diarrhoea were just equal to the corrected average number; among the various metropolitan boroughs the greatest proportional fatality from this disease was recorded in Kensington, Hammersmith, Fulham, Finsbury, Southwark, and Deptford. In conclusion, it may be stated that the aggregate mortality in London from these diseases during November was nearly 13 per cent. below the average.

Infant mortality in London last month, measured by the proportion of deaths among children under one year of age to registered births, was equal to 165 per 1000. The lowest rates of infant mortality were recorded in St. Marylebone, Hampstead, St. Pancras, City of London, Lewisham, and

Woolwich; and the highest rates in Kensington, Shoreditch, Bethnal Green, Stepney, Poplar, Southwark, and Bermondsey.

## THE SERVICES.

### ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Fleet Surgeons:—T. E. H. Williams to the *President* for R.N. Rendezvous and at medical department, and H. A. W. Richardson to the *Defiance*. Staff Surgeon E. J. Morley to the *Magnificent*.

### ARMY MEDICAL SERVICE.

Surgeon-General W. Taylor, C.B., Honorary Physician to the King, to be Director-General, vice Surgeon-General A. F. Preston, Honorary Physician to the King, whose tenure of the temporary appointment has expired. Dated Dec. 2nd, 1901.

Lieutenant-Colonel A. Keogh, C.B., R.A.M.C., has been selected for the appointment of Deputy Director-General, with the temporary rank of Surgeon-General, from Jan. 1st, 1902, on the retirement of Surgeon-General H. S. Muir, C.B.

### ROYAL ARMY MEDICAL CORPS.

Major W. Lewis Gray has arrived in the Southern District for duty and has taken over charge of the station hospital, Parkhurst. Lieutenant-Colonel D. Bruce proceeds from London to Aldershot for duty.

### INDIA AND THE INDIAN MEDICAL SERVICES.

The King has approved of the following promotions among the officers of the Indian Medical Service:—Majors to be Lieutenant-Colonels (dated Oct. 1st, 1901): *Bengal Establishment*: James Barry Gibbons, Donald St. John Dundas Grant, and Dirom Grey Crawford. *Madras Establishment*: Robert Bradley Roe, John Smyth, Hugh Greany, and Edward Pettingall Youngerman. Captains to be Majors (dated Sept. 30th, 1901): *Bengal Establishment*: Henry Bruce Melville, Joseph Charles Stoelke Vaughan, Alexander Leonard Duke, Joshua Chaytor White, Harry William Elphick, and Charles Henry Bedford. *Madras Establishment*: Charles Louis Williams and Wilfrid Constant Vickers. *Bombay Establishment*: John Blackburn Smith and Henry Francis Cleveland.

The King has also approved of the retirement from the service of the undermentioned officers:—*Bengal Establishment*: Lieutenant-Colonel John Manook Zorab (dated Oct. 9th, 1901); Lieutenant-Colonel Frederic Daly Caesar Hawkins (dated Oct. 26th, 1901) [this notification supersedes that of the transfer to the half-pay list of Lieutenant-Colonel Hawkins made in the *London Gazette* of Nov. 26th, 1901]; Lieutenant-Colonel Patrick Mullane (dated Nov. 1st, 1901).

### VOLUNTEER CORPS.

*Artillery*: 1st Gloucestershire: Surgeon-Lieutenant W. J. Hill to be Surgeon-Captain. *Royal Engineers* (Volunteers): 1st Lancashire: George Arthur Hawkins-Ambler is re-appointed Surgeon-Captain. *Rifle*: 1st Volunteer Battalion the Suffolk Regiment: Surgeon-Lieutenant F. Ward to be Surgeon-Captain. 1st Roxburgh and Selkirk (the Border): Brigade-Surgeon-Lieutenant-Colonel G. H. Turnbull is seconded whilst holding the appointment of Senior Medical Officer to the Scottish Border Volunteer Infantry Brigade. 3rd Lanarkshire: Surgeon-Lieutenant A. S. Tindal to be Surgeon-Captain. 3rd (Sunderland) Volunteer Battalion the Durham Light Infantry: Surgeon-Captain J. C. Fenwick resigns his commission.

### ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant-Colonel H. M. Morgan having retired from the Volunteer Forces ceases to belong to the Army Medical Reserve of Officers.

### SOUTH AFRICAN WAR NOTES.

The following have been discharged from hospital to duty:—Major O. R. A. Julian, R.A.M.C., Lieutenant J. M. Buist, R.A.M.C., and Civil Surgeons Macauley, Clarke, Newland, Clements, and Walker.

### SOME GERMAN SUGGESTIONS ABOUT ARMY MEDICAL REFORM.

Our contemporary the *Outlook* last week had a long article based upon a communication which it had received from a high German authority *apropos* of the Government proposals for the re-organisation of the Army Medical Service

in this country. It appears that the new War Office scheme has attracted attention in Germany and abroad among those who have been studying the whole question of army reform. A good many points are taken up and discussed in the communication in question—which requires (and well deserves) to be read as a whole to be rightly appreciated and understood—and among others the institution of an Advisory Board is regarded as a necessity. The fact that the German Government has within the last six months established a “scientific senate” acting as an Advisory Board to the Director-General (*Generalstabamt der Armes*) is adduced in support of that view. This senate is a large one, and in addition to its ordinary members it includes a number of eminent specialists in every branch of medical science. The board controls the course of study, the plans of post-graduate courses, questions of sanitation and hygiene, research on diseases of the army and their treatment, &c. The German correspondent of the *Outlook* would have a much larger board than that proposed in Mr. Brodrick's new scheme, and he thinks that in order to make an efficient and representative organisation appointments to the posts of consulting physicians and surgeons to the army should be made in time of peace by the Crown acting on the advice of the Secretary of State for War. In this way it is contended that the most eminent practitioners of the day would be made available and would regard their selection for such appointments as an honour and distinction. He considers that the number and range of the examinations set forth in the War Office scheme, if carried out, would tend to repel instead of to attract medical candidates and proposes a system of scholarships similar to those in vogue in the German service and makes several other suggestions. The German scheme as outlined in the *Outlook* is a big affair and would, we fear, be difficult to carry out in this country. In summing up the various points of his communication the German authority adds: 1. Induce young men to join the Royal Army Medical Corps by giving them scholarships. 2. During their candidature test their medical and social qualifications. 3. By frequent scientific courses and liberal grants of “study leave” stimulate the officers to replenish and increase their knowledge. 4. Promotion to take place by seniority, but subject to confidential reports from various sources (military and civil) up to the rank of lieutenant-colonel. 5. All higher posts to be granted, without regard to seniority, on grounds of general merit or distinction in the service, by the Director-General.

#### AFFAIRS IN SOUTH AFRICA.

As far as the purely military news is concerned it may be very briefly summed up as mainly consisting in the extension of the blockhouse system, General Bruce Hamilton's recent attacks upon, and capture of, Boer laagers, and the capture of Commandant Kritzinger. A good deal of sickness still continues in South Africa, but not more than might be expected to make its appearance under the circumstances. The names of those returned as dangerously ill amount to about 100, enteric fever occupying, as usual, the chief position. The casualties from wounds have to be added, of course, to the returns of sickness. The death-rate from all causes happily does not appear to be a heavy one. The *Times* of Dec. 16th contains an interesting and instructive article reviewing the recently published blue-book of 131 pages relating to the working of the refugee camps in the Transvaal, Orange River Colony, Cape Colony, and Natal. The report of Dr. Pratt Yule on the general medical condition of the camps in the Orange River Colony is well worth reading. The subject of camp diseases in relation to camp sanitation is taken up and commented upon and much is said about such diseases as measles, whooping-cough and pneumonia which have been so widely prevalent in the concentration camps. After stating, among other things, that it is well known to military officers that camping grounds quickly become foul under the best circumstances, he goes on to call attention to the important point that the urine of patients convalescent from typhoid fever often contains a pure culture of the typhoid germ, which, by the methods of disposal pursued in refugee camps, becomes blown about in the dust, and he states his belief that the typhoid infection of camps is principally air-borne. Dr. Pratt Yule is also of opinion that the extraordinary frequency of pneumonia and lung disease generally in these camps is commonly attributable to some air-borne infection, due in part to the increasing pollution of camping-grounds.

#### THE REFORM OF THE ARMY MEDICAL SERVICES.

Among the number and variety of unfavourable criticisms

which the report of Mr. Brodrick's War Office Committee has called forth we notice that it is generally, but somewhat hastily we think, assumed that the medical officers now serving under existing regulations will be deprived (without any compensatory advantage) of the privilege of retiring on £1 a day after 20 years' service. We cannot believe that this is intended to be the case. According to our reading there is nothing definite in the report to indicate that such a proposal would be made applicable to medical officers now serving, but only to those who may hereafter enter under a new warrant—that is, supposing the proposal to be embodied in a forthcoming warrant which, if the authorities are wise, they are not likely to do.

#### FIELD HOSPITAL EQUIPMENT IN INDIA.

The following recommendations of the committee on the question of field hospital equipment in India will be given effect to from April 1st next:—(1) Changes in scale of commissariat and ordnance stores; (2) recommendations regarding field hospital boxes, flags, and tents; and (3) supply of perchloride of mercury. Congo stoves are to be given a further trial, a small portable stove to burn solidified spirits of wine and a lamp lantern for burning acetylene gas being provided. The question of a more liberal provision of the Roentgen ray apparatus is under consideration.

#### THE REFUGEE CAMPS.

A supplementary blue-book to the one already issued was published on Dec. 14th, dealing with the working of the refugee camps in the Transvaal, Orange River Colony, Cape Colony, and Natal. The reports contained in the book will reassure everyone that Mr. Chamberlain and the authorities concerned are making every effort to promote hygienic conditions in the camps which have been established by military needs.

#### THE MEMORIAL SERVICE AT ST. PAUL'S CATHEDRAL.

Among those who were present at the memorial service at St. Paul's Cathedral on Dec. 16th to commemorate those who have fallen in South Africa were Colonel Sir Thomas Gallwey, C.B., R.A.M.C. (representing the Director-General of the Army Medical Department) and Lieutenant-Colonel W. Babbie, V.C., R.A.M.C.

At an investiture, held at St. James's Palace on Dec. 17th, decorations and rewards granted in recent Gazettes were conferred by His Majesty the King.

## Correspondence.

“Audi alteram partem.”

### THE EDUCATION OF THE MEDICAL STUDENT AND THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—As I was unfortunately not able to be present at the late meeting of the General Medical Council perhaps you will allow me the opportunity of stating in THE LANCET that, had I been present at the discussion on the report of the Education Committee as regards the proposals submitted respectively by Dr. Bruce and Mr. Ball, I should have voted with the minority. I do not mean now to remark on the very complicated entanglements that have led up to these proposals and which seem to me to involve the risk of a very heavy fall for the General Medical Council if there should be an appeal to the Privy Council. I hope that the committee which has been appointed *ad hoc* will have this issue in mind, as it was very distinctly and significantly set forth in the Council by Dr. MacAlister. I regard it as unfortunate that the Council did not accept the recommendation of the Education Committee so far as the principle, at least, of the proposals is concerned, viz. :—

That the Council approves of the suggestion that the registration of a medical student should be postponed until he has passed a recognised examination in the preliminary scientific subjects, on the understanding that the subsequent course of professional study should occupy at least four academic years.

It seems to me that the acceptance of a proposition of this kind by the General Medical Council would not only have been a reconciling one as regards its own previous decisions (which are much more in need of reconciliation than some of us are willing to allow), but would have provided a *modus vivendi* as regards the present unfortunate deadlock with the English

Royal Colleges. In the event of an appeal to the Privy Council (which I need not say I greatly deprecate) it would certainly not be overlooked that the General Medical Council itself, notwithstanding its own Education Committee, had thrown away an opportunity of this kind by its vote upon their report. But these grounds, though sufficient in my opinion, would not have been the only grounds of my voting with the minority in this case. No notice was taken in the discussion of what has become apparent enough to some of us in Scotland—viz., that the main object of the institution of the fifth year of study by the General Medical Council is being gradually and insidiously invaded, in quite a different direction from that attributed, rightly or wrongly, to the English Royal Colleges. No one who attentively considers the matter can doubt, I think, that the main purpose of the addition of a fifth year to the compulsory period of a medical education was to provide an entirely separate clinical year, to be attended after the curriculum of lectures and other academic studies had been completed, on which account the regulations were deliberately so framed as to leave candidates perfectly uncontrolled as to the schools and hospitals at which these practical and all-important studies were to be conducted. This, however, is evidently not the view of the fifth year which was present to the mind of one member of the General Medical Council who (according to the report) "thought that it was in order to make room for chemistry, physics, and biology that the five years' curriculum had been instituted." It is true that a subsequent speaker rightly expressed a measure of "surprise" at this very significant and uncompromising idea, but all the same it shows very well the trend of actual experience. The early subjects, being in a position of vantage in virtue of their coming first in the curriculum, have gradually expanded their requirements so as virtually to take complete possession of the extra year; and "medicine, surgery, and midwifery"—the thoroughness of instruction in which is, observe, the very *raison d'être* of the General Medical Council—are shunted along, so that when the fifth year comes it is found to be crowded up with the remains of studies that ought, according to the original intention of the fifth or final year, to have been completed before it began. Now, while the attention of the General Medical Council has been engrossed, to what I think is a quite undue extent, with an apparent encroachment on the first year of the medical curriculum, this virtual evasion of the purpose of the final year has, so far as I have observed, received no attention at all. And yet a perfectly undisturbed year for practical and clinical work, outside what may be called the merely academic requirements of the medical curriculum, is surely a question of no less importance (to put it mildly) than whether physics, chemistry, and elementary biology are, or are not, to be studied in a medical school on the one hand, or as part of a general education on the other. As matters stand at present, unless we are to look forward shortly to a sixth year being added for the final practical subjects (and even, perhaps, in that case) it will be necessary for the General Medical Council to secure the proper application of the final year as an undisturbed period of clinical and practical studies by a ruling, not only that the elementary scientific subjects shall have one compulsory year and no more, but also that before entering on the "clinical year" evidence shall be put in that the whole curriculum of "lecture" subjects has been completed, so as to leave (according to the original intention) an undisturbed time and practical freedom of choice as regards the clinical subjects. The suggestions of Dr. Bruce and Mr. Ball, had they been more kindly received by the Council, would, I think, have led the way to a readjustment of the curriculum generally, in which something effective might have been introduced in the direction here indicated. I am not to be considered as disparaging the early scientific subjects in thus attempting to keep them in what seems to me their proper place; indeed, few men engaged in medical teaching have been more consistent throughout a long career in supporting these subjects and insisting on their value as a discipline. Much more might be written on this topic, but to save your space I will abstain from further remarks at present.

I am, Sirs, yours faithfully,

Edinburgh, Dec. 14th, 1901.

W. T. GAIRDNER.

## A QUESTIONABLE PUNISHMENT.

To the Editors of THE LANCET.

SIRS,—Four or five years ago an able and popular civil surgeon of the Indian Medical Service prescribed, by the merest slip of the pen, an overdose of strychnia. The native

compounder made up the prescription as it stood and the patient died in consequence. The compounder was, I believe, dismissed, and the civil surgeon not only lost his appointment, but has remained ever since under such a cloud with the Indian Government that his career seems to be ruined. It seems to me, if the facts are as I believe them to be, that the person to blame in this case was chiefly, if not entirely, the compounder. The civil surgeon was a most capable physician, and had taken one of the first places in the entrance examinations of the service. The mistake, therefore, was certainly not due to any ignorance on his part, but was the result of a pure accident in writing—an accident which may, and often does, happen even to the most careful prescribers. On the other hand, to make up a poisonous prescription—to measure out and to mix in a poisonous dose of a deadly drug like strychnia—is a deliberate action which can only be ascribed to the grossest ignorance on the part of the compounder, and, unless I am mistaken, the law in this country makes the compounder chiefly, if not solely, responsible in such cases.

It was, no doubt, right to take notice of the most unfortunate error made by the civil surgeon; it may have been even right to deprive him for the time of his responsible post. But is it quite right to ruin his career entirely merely for a momentary slip of the pen which, after all, would have had no evil consequence if the authorities who gave the punishment were more careful regarding the qualifications of the men whom they employ as compounders? I should like to take the opinion of your readers on this point with a view to further action if deemed necessary.

I am, Sirs, yours faithfully,

Liverpool, Dec. 14th, 1901. RONALD ROSS, F.R.C.S., F.R.S.

## THE METHODS OF EXAMINING FOR MOVEABLE KIDNEY.

To the Editors of THE LANCET.

SIRS,—Reading the valuable address on the subject of Moveable Kidney by Mr. Henry Morris in THE LANCET of Nov. 30th (p. 1467), I was much interested in his description of the *palpation néphroleptique* of Glénard. Without knowing that Glénard had originated this manœuvre, or that he had glorified it with such a lengthy name, I have been practising a similar proceeding for some years on the loins of every patient whose abdomen I have had to examine, and I should like to bear tribute to the excellence of the method. By the degree of mobility of the kidney can be estimated by the use of one hand alone, or by the use of both hands both kidneys can be simultaneously palpated. To examine the right kidney the fingers of the left hand are placed behind the right loin so that the first and second fingers are over the last rib, while the thumb compresses the loin from the front immediately below the costal margin. The patient being told to breathe quietly the loin is gently but firmly compressed between the fingers behind and the thumb in front, when the loin will be felt in the normal condition to be empty; the fingers and thumb in a thin subject are able to be brought within two inches of one another. The patient is now told to inspire deeply but quietly, and the compression of the loin being maintained the end of the kidney will be felt to butt against the barrier formed by the first finger behind and the thumb in front; indeed, if the inspiration be a powerful one the kidney, when unduly moveable, may forcibly separate them as it descends. When the lower end of the kidney touches the hand the thumb is gently relaxed, and as it is lifted (still maintaining some pressure) the kidney will be felt either wholly or in part to pass between the fingers and thumb. Unless the compression by the thumb be relaxed the kidney is unable to descend, but, on the other hand, a degree of pressure must be kept up, otherwise the abdominal wall by bulging forwards as inspiration proceeds will carry the thumb off the anterior surface of the kidney. Just at the height of inspiration, but before expiration has begun, the thumb, with a somewhat rolling motion upwards, sharply depresses the anterior parietes against the fingers behind, with the result that the kidney is caught between them. If the lower end is compressed the organ will be driven upwards under shelter of the ribs by a mechanism similar to that which children use when they express a cherry stone from between their finger and thumb. If, however, the mobility is such that the upper end of the organ is caught instead of the lower the same mechanism will force it downwards, and by keeping

the loin compressed it can be retained below the thumb for as long a time as the examiner pleases.

The right hand, previously passive, is now used to palpate the kidney in its abnormal position. When the examination is finished the right hand gently pushes the kidney upwards whilst the thumb of the left hand is raised to allow of its passage. As the organ returns the thumb can be seen to ride over it and the peculiar slipping sensation associated with its replacement is very noticeable. The use of the second hand, however, is not necessary if mobility alone is in question, and by using a hand for each loin both kidneys, if sufficiently moveable, can be fixed below the thumbs. Sometimes the sharp compressing movement nips the kidney exactly at its centre and it may then be held in this position, though this usually causes some pain.

The application of the method is rendered easier by the fortunate possession of long fingers, and particularly of a long thumb, but it undoubtedly has the advantage of enabling the kidney to be felt throughout late inspiration and early expiration; for although, as Mr. Morris points out, a deep inspiration produces a hardening and bulging forwards of the anterior abdominal wall, yet firm compression is able in most cases to resist this so long as the patient breathes quietly and not spasmodically. By using this method it will be found that (in women at least) the lower end of the right kidney can practically always, and that of the left kidney nearly always, be easily felt on deep quiet inspiration. My experience is limited to the examination of women, but in them I should certainly hesitate to call any kidney moveable above the upper end of which I found it impossible to get my thumb by using this manoeuvre.

I am, Sirs, yours faithfully,

W. F. VICTOR BONNEY, M.D., M.S. Lond.,  
Assistant Physician, Chelsea Hospital for Women.  
Devonshire-street, W., Dec. 14th, 1901.

## CANCER AMONG HINDOOS.

*To the Editors of THE LANCET.*

SIRS,—In THE LANCET of Oct. 5th, p. 939, Mr. C. B. Keetley, writing upon the subject of cancer, states that he had been informed by Dr. C. N. Saldanha that "Hindoos suffer comparatively little from cancer." Upon this statement of the comparative immunity of Hindoos from cancer both Dr. Saldanha and Mr. Keetley base certain arguments regarding the prophylaxis of the disease. I do not know in what part of India Dr. Saldanha gathered the experience upon which he bases his opinion, but his statement is certainly not correct so far as Southern India is concerned. On the contrary, in this part of India cancer is very prevalent amongst Hindoos and much more so than amongst Mahomedans. In the wards of the Madras General Hospital cases of cancer affecting Hindoos are almost always to be found. At the time that I write I have three Hindoos in my wards suffering from this disease. Indeed, so common is the affection here that there are few diseases that our students are so familiar with when they leave college as cancer. The disease is most frequently seen in the mouth, affecting the inner side of the cheek. Cancer of the perris is also very common, as well as cancer of the uterus and breast.

I am, Sirs, yours faithfully,

J. MAITLAND, M.D. Edin.,  
Lieutenant-Colonel, I.M.S.  
Madras, Nov. 28th, 1901.

## ADMINISTRATION OF CHLOROFORM.

*To the Editors of THE LANCET.*

SIRS,—One cannot, I think, deprecate too strongly the overweening assumption of perfect security from danger for any one method of administering an anæsthetic. I refer to the letter of Mr. C. J. Harris in THE LANCET of Dec. 14th, p. 1696. Neither, in my opinion, can one too strongly urge on enthusiasts such as Mr. Harris that, at present at least, we must aim at right administration to the individual, not to "the public." The conception of a perfectly safe anæsthesia to be conferred on all and sundry—be it by any one anæsthetic or by any method of dosage by that anæsthetic—is in our present condition of knowledge a conception only, not a realisation. "There are no rules in medicine," is an adage with a wide application. It cannot be too strongly urged on students that it is only by careful observation of every case that skill in anæsthetic administration can be obtained, and not by the blind adherence to any rule-of-thumb method of administration. Krohne's inhaler is an excellent and most useful apparatus, but it is not, as claimed for it, the solution

of the difficulty and dangers of chloroform administration. Any experienced anæsthetist will know that difficulties and dangers arise in the course, say, of severe abdominal operations, which cannot be overcome by any one method, or by any agency save common sense born of experience in the use of all methods. That anyone can in time be anæsthetised by the gradual and methodical use of a Krohne inhaler I am prepared to admit. But that I ought to be able to go to any and every case with no other methods in my head or apparatus in my bag I am not prepared to agree to. Surely, Sirs, difference of opinion in such an important matter does not imply "lack of clear thought" or of observation as Mr. Harris suggests.—I am, Sirs, yours faithfully,

S. HENNING BELFRAGE, M.D. Lond.,  
Senior Anæsthetist to the Samaritan Free Hospital.  
Montagu-place, W., Dec. 13th, 1901.

## THE BRITISH ELECTRO-THERAPEUTIC SOCIETY.

*To the Editors of THE LANCET.*

SIRS,—At a meeting held on Dec. 13th it was unanimously decided that a society be formed for the study of electricity in its relation to medical science and that the said society be named "The British Electro-Therapeutic," also that a provisional committee be appointed, to consist of Dr. W. S. Hedley, Dr. Lewis Jones, Dr. H. G. Turney, Dr. J. H. Bryant, Dr. George Herschell, Dr. J. T. Ashton, Dr. H. McClure, and Mr. Chisholm Williams, to take the necessary steps for the organisation of such a society and to report to a meeting to be convened for Jan. 10th, 1902.

I am, Sirs, yours faithfully,

CHISHOLM WILLIAMS.  
20, Bedford-square, W.C., Dec. 15th, 1901.

## DUODENAL ULCER AND ITS SURGICAL TREATMENT.

*To the Editors of THE LANCET.*

SIRS,—In speaking of perforation of a duodenal ulcer Mr. B. G. A. Moynihan, in his instructive paper on the subject in THE LANCET of Dec. 14th, p. 1656, indicates the direction which the fluid may be supposed to take—viz., to the hepatic flexure of the colon, along the outer side of the ascending portion, to the iliac fossa, and thence to the pelvis, &c.

I imagine that this applies to cases of sudden rupture and where much fluid escapes when a person is in the erect position, as in Mr. Moynihan's second case. To give the escaped fluid a chance of remaining localised it would seem in these cases of the utmost value to lay the patient in a recumbent position immediately, and to maintain him there at all costs. One so often sees patients brought to hospital who are suffering from ruptured gastric ulcer in vehicles which do not allow of their lying down. I believe that it is these journeys which are largely responsible for the wide extent of peritoneal infection. Recent inquiries into the anatomy of the right kidney pouch in the cadaver have convinced me of what great importance this area is for the localisation of pus and other fluids, especially those coming from the duodenal region. If the viscera be removed it will be seen that the hollow of the flank, of which the kidney pouch is the most dependent portion, sinks three inches below its lowest boundary wall, which is the brim of the pelvis. Pus or extravasated fluid, unless of very large amount, must find some difficulty in ascending this gradient in order to flow over the brim of the pelvis into its cavity while the patient is supine. And it is correspondingly much easier for appendicitic pus to pass down the flank and infect the kidney pouch. As the kidney pouch with its various diverticula under the liver and into the lesser omental sac is notably difficult to cleanse I should have been glad to have seen Mr. Moynihan recommend an incision at the outer side of the right kidney just below the last rib and drainage at that point. I am, Sirs, yours faithfully,

F. VICTOR MILWARD, F.R.C.S. Eng.  
Birmingham, Dec. 16th, 1901.

## SMALL-POX AND VACCINATION.

*To the Editors of THE LANCET.*

SIRS,—There are many letters written to the medical papers now on the above subject, and some of the remedies suggested for inefficient vaccination are amusing if not instructive. Surely at a time when small-pox is daily increasing in

London and steadily finding its way into the provinces the Local Government Board should do something, and I venture to suggest three things easy of doing. 1. As the objection to vaccination is entirely due to ignorance in the great majority of persons (I am frequently told when I ask a patient what he thinks vaccination really is, "Oh, you give small-pox to a cow and then put the stuff out of the spots into our arms") to get the school board authorities to have vaccination explained shortly and simply to the pupils once in every term. 2. To supply all medical practitioners at a reasonable charge with pure calf lymph, or to get an Act passed prohibiting anyone from selling calf lymph without a certificate from the Local Government Board, which Board should have power to visit and inspect premises, animals, and operations, and to take away lymph for bacteriological and other examinations. 3. To alter the present vaccination certificate by adding to the form, "has been successfully vaccinated by me," the words "in — places," and in any case where less than four places have been certified the vaccination officer should note such in his register and write to the parents or guardians of the child notifying that such vaccination is not protective for more than a few years and advise that the child should be revaccinated at or before the age of seven years.

I am, Sirs, yours faithfully,

Gravesend, Dec. 16th, 1901.

C. J. W. PINCHING.

### THE WILLIAM SMYTH FUND.

To the Editors of THE LANCET.

SIRS,—May I be permitted to make a suggestion of a practical character as to the method by which, I trust, the widow and eight orphan children of that manliest and bravest of men, the late William Smyth of Burton Port, Donegal, can be secured, as they certainly ought to be, from every fear of want. When the case was brought to my notice, after forwarding my individual subscription I undertook, at the suggestion of the gentleman who mentioned the matter to me, to write a letter to the Liverpool papers in which, after briefly setting forth the case, I offered to receive and acknowledge any monies forwarded to me. The response has been very kind and generous both on the part of the medical profession and the public, sums of various amounts have been sent to me, and I have been able thus far to transmit to Sir Christopher Nixon £350 (inclusive of my own subscription), while there are still some £40 to send. The suggestion which I wish to make is that a senior and thoroughly well-known medical man in each of the large towns and cities of England, Wales, and Scotland should undertake a similar duty for his own neighbourhood, appealing to patients as well as to his medical brethren. The result would not be in the least doubtful. Sir Christopher Nixon and the distinguished gentlemen associated with him will look after Ireland.—I am, Sirs, yours faithfully,

Liverpool, Dec. 16th, 1901.

WILLIAM CARTER.

### RASH AFTER TONSILLOTOMY.

To the Editors of THE LANCET.

SIRS.—In reply to the suggestion of Dr. Clement Dukes that the rash after tonsillotomy recently reported by me in THE LANCET was possibly the result of a soap-and-water enema, I should like to explain that no enema was administered in the case in question.

I am, Sirs, yours faithfully.

H. W. HENSHAW, M.R.C.S. Eng.,

Kew, Dec. 17th, 1901.

L.R.C.P. Lond., D.P.H.

### EXCESS OF SALT IN THE DIET A PROBABLE FACTOR IN THE CAUSATION OF CANCER.

To the Editors of THE LANCET.

SIRS.—It is not in opposition to Dr. James Braithwaite's theory<sup>1</sup> of "salt being a probable factor in the causation of cancer" that I write, but against the assertion that the Jewish race, owing to their dietary laws, are not so liable to the disease. Among orthodox Jewish people as soon as meat arrives at the house it is washed and then well sprinkled with

salt and allowed so to remain for half an hour or more, in order to dissolve out any fragments of blood that may remain in the tissues. That in itself is sufficient (if the salt theory be correct) to create a larger proportion of cases in the race *pro rata* to others. Though ham and bacon are excluded from their diet, let me assure Dr. Braithwaite that the latter is amply compensated for by smoked and pickled meats. No doubt, owing to their Oriental origin, Jewish people are particularly prone to dishes that are very highly seasoned, salt being one of the main ingredients. In conclusion, I could enumerate many cases of carcinoma amongst my friends and patients during the last few years, most of them never having tasted swine-flesh.

I am, Sirs, yours faithfully,

M. BERNSTEIN, L.R.C.P. Edin. &c.

Edgbaston, Dec. 10th, 1901.

To the Editors of THE LANCET.

SIRS.—In THE LANCET of Dec. 14th, p. 1686, you make the following remark upon the subject of my paper on the causation of cancer:—

We believe, however, that a more systematic and widespread inquiry would show that cancer is not so uncommon amongst women and men of Jewish birth as has hitherto been supposed.

I think that I have tapped every source of information possible on this point and I send you the following extract from my paper, an abstract of which only has yet been published:—

Dr. Abraham Cohen, physician to the Jewish out-patients at the Metropolitan Free Hospital, has very kindly looked up the registered causes of death of those buried by the United Synagogues of London. This covers the whole Jewish population of London with the exception of about 5000 or 6000 who do not belong to the Union. In the years 1899, 1900, and 10 months of 1901 there were registered 62 deaths from cancer: uterus two, breast nine, liver four, rectum two, throat two, stomach three, and one each of kidney, bladder, colon, pancreas, parotid, ovary, superior maxilla, abdomen, pelvis, tumour (died in cancer hospital), and "cancer" only, without locality, 30 cases. From these figures we arrive at the curious and unexpected conclusion that it is from cancer of the uterus chiefly that Jews are especially free. Taking, however, all forms of cancer, they are nevertheless subject to it as compared with the general population of London in the proportion only of 10·8 to 37·0—i.e., they are a little more than a quarter as liable to the disease as is the general population of London. In the two complete years, 1899 and 1900, the total deaths were 3798 from all causes, and of these 41 were from cancer, which gives one death in every 92 amongst the Jews, comparing with one in every 22 in the general population in 1896. We may take this in another way. The present mean Jewish population of London is said by the best authorities to be 105,000. Of these 100,000 are connected with the United Synagogues, and 5000 to 6000 are outside this Union. Out of this 100,000 41 died from cancer in the two years 1899 and 1900. This gives a mortality of 20 per 100,000, contrasting with 71 per 100,000 in the general population. The same result, therefore, works out as when the deaths from cancer are contrasted with the total deaths.

Thanks to Dr. Henry Russell Andrews, Obstetric Registrar to the London Hospital, I have the following further figures and information. He writes: The total number of in-patients in the London Hospital in 1899 was 13,234, and in 1900 about 13,500. Jews and Jewesses and their children form about one-sixth of the total. This is not based on actual counting but, Dr. Andrews thinks, is quite sufficiently nearly correct to work upon. Quite one quarter are children under 16. In 1899 and 1900 there were 20 male and female Jews of all ages as in-patients with cancer (not including cancer of the uterus) in the ordinary medical and surgical wards of the hospital, as against 286 Gentile males and females of all ages—that is, one cancerous Jew to 292 cancerous Gentiles. The proportion of total Jewish in-patients to Gentile in-patients, calculated on the basis of 6 per cent., would, however, be one Jew to every 162 Gentiles. So that from all possible sources of information on this subject, and calculated in every way possible, it always comes out that the Jews are much less subject to cancer than we are and that they are especially free from cancer of the uterus.

I should like it to be distinctly understood that my argument does not rest upon this question about the Jews but upon other and stronger grounds. The idea, however, was originated in my mind by the comparative immunity of the Jews.

I am, Sirs, yours faithfully.

Leeds, Dec. 13th, 1901.

JAMES BRAITHWAITE.

### A DANGEROUS PRINCIPLE.

To the Editors of THE LANCET.

SIRS.—On Feb. 25th, 1901, I made personal application to the registrar of the Royal College of Surgeons in Ireland for a copy of their by-laws for the purpose of ascertaining did these in any way bear upon the following provision in the charters of 1844 and 1885:—

And the examiners or any number of them declared by the by-law to be competent to transact business as a court of examiners shall in the presence of the President or in his absence of the Vice-President and two or more members of the council examine any candidate for a Fellowship.

Upon that occasion I was informed that the by-laws were

<sup>1</sup> THE LANCET, Dec. 7th, 1901, p. 1573.

being printed. On July 10th I wrote to the secretary of the council of the College, and was informed that when the by-laws were printed I could have a copy. Again on Nov. 21st I wrote in reference to the delay, and was informed that the council declined to give me a copy of the by-laws by advice of their solicitor. Having regard to the penal powers over its Licentiates possessed by the corporate surgical body concerned and to the dangerous principle now laid down by the President, Vice-President, and council of the Royal College of Surgeons in Ireland that they can withhold their by-laws from a Licentiate on the grounds of legal expediency, I beg space to lay this case before the profession through your valued journal.

Dec. 17th, 1901.

I am, Sirs, yours faithfully,

S. WESLEY WILSON.

## THE QUESTION OF FEMALE MEDICAL RESIDENTS IN GENERAL HOSPITALS.

*To the Editors of THE LANCET.*

SIRS,—Reflecting upon what is taking place at Macclesfield, Stockton, and other places in connexion with the employment of lady doctors in hospitals and infirmaries, it has struck me that some decided and clear guidance is needed for the professional and public mind from the leading organs of the medical press. I have myself no prejudice at all against the study of medicine or even surgery by those of the female sex who are well qualified for it by the excellence of their character and education, provided that it leads them to work in suitable channels and does not from its nature demoralise and unsex them. It does appear to me that the delicacy and refinement of mind which constitutes so great a charm and which one always expects to find in every cultivated and modest young lady is hardly compatible with promiscuous mixture with the young house surgeons in our hospitals and small infirmaries or with attendance upon the injuries and diseases of adults of the male sex. The finer sensibilities of her nature must be blunted and soon sacrificed for all time when she can view without a shudder the call to treat venereal diseases and pass catheters, for example, for adult males. And what must be thought of the individual young lady who would desire to seek such occupation? I say nothing of the feelings of her male patients who are to be subjected to such an outrage upon common decency. The retort may be made that women have to submit to similar services from the opposite sex, therefore why not the men. There is a great distinction. For centuries men have in the main carried on this work, and there can be no question that they have gained the confidence and good will to an extraordinary degree of the great bulk of their female patients. The lady doctors will have to work hard to establish themselves even in an equal degree of trust from their own sex, and as time goes on they may perhaps succeed in doing so. But in mixing themselves up with the treatment of diseases of men it seems as though they would be likely to defeat their own object, as it shows a coarseness of mental fibre that men would scarcely be found to tolerate and the more refined minds of their own sex would certainly condemn. The employment of these young ladies in the women's and children's wards of hospitals when they possess the requisite skill appears to rest upon an entirely different foundation, and may under some circumstances be preferred. There is a practical difficulty to be overcome in infirmaries doing all kinds of work and employing two or three house surgeons. The senior house surgeon is in confidential relation with the managing board and with the whole of the medical staff of the institution; he requires his own room and it is necessary that he should have it to himself. The other two will often share their room together. Imagine a young fellow of 24 and a young lady of 23 thus thrown together in such intimate daily association. This is no imaginary picture. At an infirmary some years ago a very highly qualified and experienced surgeon was elected as second house surgeon and at the same time a young lady as his junior. The two junior house surgeons had previously been accustomed to join at their sitting-room, and therefore when the gentleman was elected he naturally wished to know whether it was expected that the same arrangement would be continued. When told that it would he immediately threw up the appointment. He said, what would his mother say! The lady made no difficulty, but expressed her willingness to accept the position. Afterwards the good sense of the board prevailed, and when another election took place shortly after separate rooms were arranged with considerable addition of expense and discomfort. In small general infirmaries

it is frequently necessary for the house surgeons to interchange duties in the unavoidable absences of their colleagues, so that it becomes highly inexpedient and unpractical to appoint those who cannot when required take up the work in proper sequence. Where there are separate departments for children and women and no work is required amongst male adults, either as in-patients or out-patients, the circumstances are materially modified, and it then becomes a question of expediency and convenience as to housing and living, rather than of propriety and general decency.

I am, Sirs, yours faithfully,

Dec. 12th, 1901.

X.

## PUBLIC HEALTH APPOINTMENTS.

*To the Editors of THE LANCET.*

SIRS,—Your readers will be aware that after this month all applicants for appointments in the public health service will require either to possess a special diploma or to have been similarly engaged during the past three years. Candidates registered before Jan. 1st, 1890, are exempt from special regulations, but I gather that the examination is of such a nature as to entail a special and protracted course of bacteriological and chemical laboratory instruction. Candidates registered since Jan. 1st, 1890, must submit entirely to the new regulations as to course of instruction, pupilage, &c.

Under these circumstances it appears to me that of the many hundreds qualified during the last 10 years only a favoured few, possessed of both money and time, can ever become medical officers of health unless they already hold that distinction. I am among those registered before 1890 and have held office as medical officer of health but not during the last three years. Though I am exempt from the strict regulations, still the examination is almost prohibitive, if my information be correct. Are all, except those recently qualified and so able to become diplomates before settling down to be debarred from holding these important offices? What I really wish to know is whether any diploma is within reasonable reach of a busy practitioner, and whether, considering that the new regulations must limit the number of applicants, the field offers sufficiently bright prospects to entice entry; or are all these posts to be left for the future to the young and recently qualified man? I shall be extremely grateful for any advice from yourselves and also from any of your readers.

I am, Sirs, yours faithfully,

Dec. 18th, 1901.

LATE M.O.H.

\* \* \* Our correspondent will do well to consult Section 18 of the Local Government Act, 1888, from which he will see that every medical officer of health appointed after Jan. 1st, 1892, to a district of 50,000 or more inhabitants must either possess a diploma of public health or have been during some three consecutive years prior to 1892 medical officer of health to a district containing at least 20,000 inhabitants, or have been for not less than three years on the staff of the Medical Department of the Local Government Board. If "Late M.O.H." wishes for a diploma of public health he must pass the examination, although, as he was registered before Jan. 1st, 1890, the regulations as to study do not apply to him. Whether or not the diploma is within reach of a busy practitioner will depend largely upon the scientific learning which such practitioner has had and whether the interval which has elapsed since such training is a long or short one. So, too, the prospects must depend largely upon his age and qualifications. We should advise him to procure some of the recent examination papers and to ascertain whether there is any laboratory near at hand where he could do some chemical and bacteriological work.—ED. L.

## MEDICAL OR LAY SECRETARIES TO HOSPITALS.

*To the Editors of THE LANCET.*

SIRS,—With reference to the letter appearing in THE LANCET of Dec. 14th, p. 1699, over the signature of Dr. F. Bushnell, might I be permitted the liberty of indicating the reason

why lay secretaries, having to deal with matters of organisation and finance purely and simply, of hospitals, sanatoriums, and similar institutions, are preferred to, and are more successful as such than, members of the medical profession? It is to be found in the "specialised knowledge" possessed by such lay secretaries which is not obtainable in the medical man, or if so obtainable it is the exception, not the rule. To fill adequately and satisfactorily such a position it is business acumen and organising ability which are required, not professional knowledge. The question as to "whether medical candidates for such posts could be obtained" does not fully express what is required: the question rather should be whether medical candidates having sufficient competence and experience in such special branch could be obtained—to which question there can be but one answer. I inclose my card.

I am, Sirs, yours faithfully.

Dec. 13th, 1901.

CHARTERED ACCOUNTANT.

## THE ORGANISATION OF THE PROFESSION.

(FROM OUR SPECIAL COMMISSIONER.)

### *The Workmen and the Consultants at Birmingham.—Important Statistics relating to Contract Work.*

WE have seen that the proposed formation of a Consultative Institute at Birmingham brought all grades of the profession together in a common effort to resist this attempt to introduce commercial methods into medical practice. That such an attempt should have been made at all constitutes a further proof of the degrading effects of cheap contract work. This is a phase of the question on which it is impossible to insist too much. The great difficulty throughout has been to convince the general public that their interests and the interests of the medical profession are identical. Over and over again medical men have been accused of simply endeavouring to increase their incomes. There is, on the contrary, no profession more willing to work, not only for inferior pay, but, for the genuine poor, gratuitously. The argument is that if those who could pay did pay, then medical practitioners could afford to give full and careful attention to patients who could not pay at all and to those who could only pay very small sums, such as a penny per week. But if a large proportion of the public who can afford the usual fees enrol themselves in medical aid organisations, then the general practitioner, being thus deprived of his paying patients, has to make up in quantity for what he loses in quality. He has to put on his list several thousand subscribers at a penny a week to make up for a hundred or so patients at 2s. 6d. a visit. But if quantity thus replaces quality in the category of his patients so inevitably does the character of the attendance given also partake of the nature of quantity rather than quality. This is degrading to the profession and in nowise satisfactory to the patient. Thus the impression has gained ground that the club medical officer is an inferior man and a desire for something better has arisen. It was this feeling that led a large body of working men in Birmingham to support the proposal to create a Consultative Institute. The movement derived much of its strength from the dissatisfaction felt against club practice. It was also in a measure due to the extraordinary ignorance which prevails as to the meaning of the term "consultant." According to the popular opinion a consultant holds a much higher qualification than the general practitioner; he is supposed to have gone through a longer and more elaborate training, to have passed more difficult examinations, and to be altogether much more efficient. At a large meeting which was held previously to the formation of the Consultative Institute the working-men speakers clearly showed that they were under the impression that a medical man was trained either as a general practitioner or else as a consultant; and, if the latter, that he could advise on any disease with equal knowledge.

One of the medical practitioners in Birmingham who has taken an active part in the recent agitation, when discussing this question with me, expressed the opinion that perhaps this impression had arisen at the ambulance classes. Some workmen who attended these courses imagined that the teacher did not know more than what he taught. Hence, when they had completed the course, some of the pupils were apt to classify themselves with their teacher, thinking they know as much

as he did; and, if this knowledge did not suffice, then both teacher and pupil must go to a consultant. The club medical officer has himself not infrequently helped to confirm this impression. To get rid of a tiresome patient he has been apt to advise him to go to the hospital, urging that the members of the hospital medical staff were so much more clever. The same has occurred in surgery cases, the club medical officer being anxious to avoid attending on patients who require more bandages than he can afford to give. Over and over again club patients are heard to say that their medical officer has candidly told them that he was not capable of attending such cases. Yet if these same patients had offered a 2s. 6d. fee he would have been just as ready to attend them as the consultant who claims a guinea. Again, the club medical officer suits the language he employs to his patients and describes their complaints by their popular names. The consultant, on the contrary, employs technical terms and the patient goes away with the impression that the consultant has discovered a new disease which has escaped the observation of the club medical officer who is but a general practitioner and is therefore supposed to be much less capable. One speaker at the general meeting mentioned above indignantly explained how his club medical officer had told him that he was suffering from dyspepsia, whereas a consultant had subsequently informed him that he was afflicted with gastric catarrh. Nor is the medicine given by the club medical officer held in any higher estimation. Several speakers held forth on the same occasion in deprecating terms about the club medical officers and their "stock" and "slop" mixtures. No one, not even Mr. Arthur Chamberlain, attempted to define what was meant by the term "consultant," but it was quite clear that the workmen wanted to have someone at their disposal to whom they could bring their medicine, who would smell the bottle, shake his head, and prescribe something better. They did not want a real consultant to meet their club medical officer and consult with him, but they wanted a sort of referee who would act as a check over him. They compared the general practitioner to the ordinary workman and thought that it was only right that a foreman should be set over him to keep him in order and to see that he did his work properly. The consultant was evidently destined to play the part of the foreman. He was to be held *in terrorem* over the much-maligned club medical officer. Nobody seemed to realise, and nobody was willing to explain, that such complaints as may be justifiable were due, not to any incapacity or inferior training on the part of the general practitioner, but to the system of contract work which compelled the club medical officer to do more work than could be properly accomplished in the time he could afford to give. What can be expected when the average remuneration for a consultation and for medicine only amounts to a few pence? It would in many instances be better if there was no payment at all, as there would then be no disguising the purely charitable character of the advice given. There would be fewer poor patients and more paying patients, and both categories would receive better attention, the general practitioner would not be overworked and could do his best for all alike, there would be better opportunities for the advancement of medical science, and the advantages reaped by the general public would be quite as great as those secured by the profession.

The great need of the moment is a better array of arguments that will help to place the public on the side of the profession—that will convince the patient that his interests are identical with those of his medical attendant. The money argument ought not to be the most effective. There are other and much higher considerations. Unfortunately, these latter are apt to soar over some people's heads. For this category of individuals Dr. E. D. Kirby, honorary secretary of the Birmingham and District General Medical Practitioners' Union, has collected some valuable statistics. They are not yet complete, as they only extend over a period of six months, and a larger experience may necessitate the altering of many of the figures given, but the general moral conveyed is likely to remain the same. The results obtained are totally unexpected and they reveal a new fact which may lead the public to look more closely into the system of contract work. As a rule the complaint is that the medical officer of a medical aid organisation is insufficiently paid, and the public generally have displayed a stoical indifference in regard to this grievance. Perhaps, however, this apathy may be somewhat

shaken if it can be shown that occasionally the grievance is the other way round, and that it is the public who pay too much. The figures collected relate to several Birmingham clubs and local branches of friendly societies and compare the receipts of the medical officers with the number of visits paid and consultations given during the six busiest months—January to June—of the year 1901. An appeal is made that similar statistics should be drawn up on a larger scale and for a more prolonged period. It is the club medical officers who alone can give such information. The statistics which have already been obtained show that there is an amazing difference in the scale of remuneration when it is compared with the actual work done. In some cases the amount suggested above was inadequate; but it is also made evident that in other instances the payment is more than necessary, so perhaps the public will take greater interest in the matter. The amount received in annual subscriptions has been divided into two parts. One-third of the sum has been allotted as fees or remuneration for visits made to patients in their own homes and the remaining two-thirds for consultations given at the medical officer's surgery. In both cases the medicines, bandages, &c., are included. Taking first the Manchester Unity of Oddfellows, it is found that 205 visits were paid and 656 consultations were given in the six months. Reckoned on the above principle, the payments made amounted to 1s. 1d. for each visit and 8½d. for each consultation. For the members of a club which had its headquarters in Cannon-street there were 97 visits at 6d. each and 287 consultations at 4d., but in another case there were 276 visits and 1104 consultations which brought in only 3d. and 1-95d. respectively. Another organisation, known as the Ebenezer, yielded for 109 visits about 1s. 11d. each and for 473 consultations about 9d. each. Other figures show 2s. 4½d. per visit and 7d. per consultation. One medical officer records 377 visits working out at an average of 2s. 3d. each, and 2886 consultations at 7d. each, and another medical officer calculates that he received 2s. 9d. per visit and 11d. per consultation. On the other hand, the Union Provident for 432 consultations and 63 visits yielded only 2d. and 7d. respectively. The Birmingham Mutual Old Age Society for 34 visits and 133 consultations showed an average of 2s. 1d. and 1s. 0½d.; and two courts of the Ancient Order of Foresters for 62 visits and 281 consultations paid as much as 2s. 10½d. per visit and 1s. 7½d. per consultation, which is a little more than what is generally considered the minimum fee. But the most interesting point is that while the scale of remuneration is frequently very inadequate, it is now and then very much more than necessary and the patients would be far better off if they selected their own medical adviser and paid him the usual fees. Thus there is in Birmingham a small society consisting for the most part of young men. Only six visits were necessary during the six months and consequently these brought in an average of 12s. 1d. per visit. There were, however, 102 consultations and for these the average was only 1s. 5d. If we add 1d. to each of these consultations, to bring them up to the 1s. 6d. minimum, this makes 8s. 6d., and this amount we should deduct from the 72s. 6d. paid for the six visits, and there would then remain 64s. for the six visits, or 10s. 8d. per visit. If the members had paid 2s. 6d., the minimum fee per visit, this would have been 15s.; and deducting this sum from the 64s. there remains 49s. Therefore the members could have paid the minimum fees of 1s. 6d. and of 2s. 6d. and yet have saved 49s. out of a total expenditure of 217s. In this case, therefore, the members of the club were absolute losers. They could not choose their medical adviser, they had to accept the services of their club medical officer whether they liked him or not, and they paid him more than if they had sought medical advice in the ordinary manner. In another instance the amount paid per visit was 5s., but the average payment per consultation was only 7½d., so that the excess on one side is counterbalanced by the deficiency on the other side.

There is no difficulty in accounting for all these discrepancies. The remuneration does not depend on the amount paid but on the physical condition of the subscribers. This is an all-important consideration, for it clearly shows that no general rate of payment is applicable. For instance, it is thought absolutely scandalous to accept clubs at 2s. 6d. per head per annum, yet there are some clubs that pay very much better at this rate than other clubs where the members subscribe 4s. 4d. or even 5s. each. This is especially the case with seafaring populations. At Dundee crews engaged in whale-fishing only

pay 2s. 6d. per head per annum, but as they are away for at least half the year this is equivalent to a payment of 5s. a year for persons who are on land all the time. Indeed, this applies to a certain category of workmen whose homes are in Birmingham but who are constantly being sent to work in other parts of the country. Then, again, if a new club is formed consisting of young members they will need very little medical attendance, while, on the other hand, clubs of long standing whose original members have grown old require a great deal. The mistake has been made of comparing members of a club with the general population, whereas it would suffice if young men paid 2s. 6d. a year, though perhaps 10s. a year would not be enough for the old men. Of course, if the young and the old, the healthy and the weak, were mingled in the same proportion as they exist in the population at large it might be said that a general average could be struck, but this is not the case—the figures dealt with above relate only to adult males and the discrepancies would be infinitely greater if women and children were introduced. Thus, to give yet another example, the medical officer of lodges or branches of the Oddfellows, of the Unitarian Brotherhood, of the Rechabites, and of the Gas Workers' Union explains that each of these societies pay 4s. per head per annum. This brings him in an average of 1s. 2d. per visit and 7½d. per consultation. On the other hand, a society that pays only 3s. per head per annum yields 1s. 6½d. per visit and 8½d. per consultation, while a smaller lodge, which also only pays 3s. per annum, works out at 5s. the visit and 9d. the consultation. In the face of such figures it is absolutely impossible to lay down a general rule. To obtain anything like a financial equilibrium it would be necessary that a young society should appoint a young medical officer, that this medical officer should never sever his connexion with the society, and that he should live as long as its young members. Then the medical officer would have an easy time of it during the earlier period, to be counterbalanced by more pressing work as he became older and felt a growing need of rest. His remuneration, of course, would be the same throughout. The only other way out of the difficulty would be to introduce a sufficient quantity of new and young members into the old societies, but the figures given above clearly prove that this is not done, at least to a sufficient extent. It will be seen, therefore, that the whole system of contract work requires to be studied anew and that an increase, even a considerable increase, of the subscriptions paid will not meet the difficulty. Sometimes the lowest pay is the most remunerative when compared with the work actually done. It will be necessary to find a new combination.

(To be continued.)

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

### *Memorial to the late Professor Thomas Jones.*

ON Dec. 11th a bronze medallion portrait and a brass tablet which have been placed in Owens College Medical School in memory of the late Professor "Tom" Jones were unveiled in the presence of a large number of students and friends. The memorial tablet also bears the names of Mr. W. Davies, Mr. J. C. Eames, and Mr. H. Aldred who died in South Africa—four valuable lives given to their country from Owens College. Nearly £1000 were subscribed by 275 friends, which sum, as Professor G. A. Wright said, might have been largely increased if a public appeal had been made. In addition to the medallion and tablet a sum of £852 14s. was handed to the college authorities for the foundation of an exhibition in anatomy. Eloquent testimony was given to the respect and affection felt for the late Professor Jones.

### *Stockport Infirmary.*

The harmony existing between the Stockport Infirmary board and the medical staff contrasts pleasantly with the troubled state of things at Macclesfield in the same county. At a meeting of the board on Dec. 11th a letter was read from the honorary staff presenting an installation of the x ray apparatus which has been erected at the infirmary. At the same time the honorary medical board expressed their pleasure at the harmonious relations which had always existed between the board of management and themselves. Colonel Howard, the chairman, in moving a vote of thanks

to the staff, said that they had before shown their generosity by the presentation of an operating-room.

#### *Manchester Companies Volunteer Medical Staff Corps.*

An interesting event took place in Manchester on Dec. 3rd, when a dinner, presided over by Surgeon-Lieutenant-Colonel W. Coates, was given in honour of the First Service Company of the Manchester Companies Volunteer Medical Staff Corps who have recently returned from South Africa. Mr. Walter Whitehead—or, as he should here be styled, Surgeon-Colonel Walter Whitehead—spoke warmly of the great sacrifice made by Captain Smith in going to South Africa when his seniority entitled him to a certain appointment at the Royal Infirmary and said that he thought he should receive some recognition of the excellent services he had rendered. Captain Smith said that at Bloemfontein the orderlies were for some time doing duty for 36 hours out of 48, and although the work was of a kind not altogether congenial to them he was sure that, if required, they would be willing to go and do similar work again. It was stated that the Medical Staff Corps sent out more men in proportion to their strength than any other arm of the service. A smoking concert was afterwards held and the annual prizes were distributed by Surgeon-Colonel Whitehead.

#### *Manchester Ear Hospital.*

Sir W. H. Houldsworth, M.P., presided over the annual meeting of the Manchester Ear Hospital held on Dec. 11th. During the year 202 in-patients had been treated and a large number of operations had been performed, while the out-patients had numbered 2438. Alterations and furniture had cost £250, of which sum the committee subscribed £125 19s. Hospitals are like empires, every extension involves increased work and greater expenditure. Last year the latter exceeded the income by over £87, and an appeal was made for an addition of £100 to the annual income. There is no doubt of the great good done by the Ear Hospital, and the people of the Manchester district will surely find the means asked for.

Dec. 17th.

## WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

#### *Cardiff Isolation Hospital.*

In his last quarterly report the medical officer of health of Cardiff (Dr. E. Walford) draws the attention of the corporation to the necessity for enlarging the isolation hospital. This institution at present has accommodation, upon the Local Government Board basis of 2000 cubic feet for each patient, for 116 patients in six ward pavilions. Three of these pavilions have been in occupation only about a year and the remainder about six years. With the erection of three more pavilions, each for 22 patients, there would only be accommodation for 182 patients—none too much in view of the large number of working people who live in the town and of the readiness with which they avail themselves of the advantages of the hospital. The population of Cardiff at the last census was 164,000. Small-pox patients are now isolated in iron buildings situated upon land immediately adjoining the permanent hospital and Dr. Walford advises that a more remote site should be obtained upon which a permanent structure could be built. He expresses the opinion, also, that as the majority of cases of the disease come from vessels in the port the expense of a small-pox hospital should be borne by the port sanitary authority.

#### *Gratuitous Distribution of Antitoxin.*

Upon the recommendation of the medical officer of health the Neath Rural District Council has decided to supply antitoxin gratuitously to medical practitioners living in those portions of the district where diphtheria is prevalent.

#### *Prevention of Tuberculosis.*

At a public meeting held at Haverfordwest on Dec. 13th a sub-branch of the South Wales and Monmouthshire Branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis was formed for the counties of Pembrokeshire, Cardiganshire, and Carmarthenshire. Dr. Douglas A. Reid, medical officer of health of Tenby, was elected secretary, and the executive committee were instructed to take into early consideration the desirability of erecting a sanatorium for the open-air treatment of consumption and a sanatorium for the treatment of tuberculous diseases in children.

#### *Water-supply of Bath.*

Until the last few weeks the ordinary constant supply of water to the city of Bath has not been interrupted, but the absence of any considerable amount of rain in October necessitated careful husbanding of the water in the reservoirs and there was no supply during a few hours daily. The average rainfall in Bath during the past 41 years in October and November was six inches, but during the same months in this year it was less than two inches. Since Dec. 5th the yield of the springs has improved considerably and it is anticipated that there is now no likelihood of the supply again running short.

#### *Coroners and Medical Men.*

On Dec. 9th an inquest was held at Bussage, Gloucestershire, upon the body of a man, aged 47 years, who died from the effects of a bicycle accident which had occurred on the previous day. A local medical man who was sent for after the accident gave a certificate in which death was stated to be due to a fractured skull, but he refused to attend the inquest unless he had a written order. The coroner said that he ought to have been present, adding that the death certificate was useless and that it was well known that medical men were not entitled to give certificates in cases of this kind, as the registrar would not accept them but would refer to the coroner. The jury returned a verdict of "Accidental death."

#### *Proposed National Museum for Wales.*

On Dec. 10th at Cardiff a deputation waited upon the county council with a view to inducing them to take up the matter of a national museum for Wales. It was urged that the museum committee should be allowed to call to their assistance outside aid and that the designation of the Cardiff Museum should be altered, seeing that the institution was doing a national work, and that its name should indicate its real nature. Eventually the matter was referred to a committee.

Dec. 16th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *University of Glasgow.*

At a meeting of the University Court held on Dec. 12th the Finance Committee submitted a statement dealing with a report of the senate on the proposed changes in the scope of the chair of natural history. Hitherto the professor of this subject has had the responsibility of teaching both zoology and geology and Dr. Young's resignation is to be made the opportunity of establishing a scheme which always had his hearty support—namely, the institution of two distinct chairs. It has been announced that the Bellahouston trustees are prepared to provide £6000 towards the foundation of a chair of geology. The committee recommended that application be made to the Carnegie trust for the balance of the sum required and this suggestion was accepted by the court. The following appointments to examinerships are announced: Dr. Ebenezer Duncan in medicine and clinical medicine, Mr. Sydney Jones in surgery and clinical surgery, Dr. R. Barclay Ness in materia medica and therapeutics, Mr. Malcolm Laurie in zoology, and Mr. D. R. Boyd in chemistry.—At a recent semi-public function in Glasgow Principal R. H. Story, in replying to the toast of "The University," took occasion to discuss several academic questions of current interest. Dealing with the appeal for funds for further extensions of the college he said it was somewhat unfortunate that after 30 years the splendid buildings at Gilmourhill should be found inadequate. This result was due to two causes—first, that Sir Gilbert Scott in designing the buildings had thought more of architectural effect than of the demands of modern science, and, secondly, that the number of students, more especially on the scientific side, had so greatly increased. The principal urged the claim of the university to public support and argued that Mr. Carnegie's generosity had by no means solved all their financial problems. He expressed the opinion that the devotion of such a large sum of money to the payment of fees had been a great mistake and that many who had no claim to such assistance were availing themselves of the benefits of the gift. If university education were to be made free the task should be undertaken by the Government and should include the whole of the students. Principal Story also

referred to the criticism which had been passed in certain ultra-Protestant quarters on the action of the university authorities in sending a letter to the Pope in connexion with the recent celebration of the ninth jubilee of the university. He scoffed at the suggestion that such a letter was an indication of Romanising tendencies and described it as a mere courtesy to the direct successor of Pope Nicholas VI., to whose Bull the university owed its existence.—A sign of the times may perhaps be detected in the announcement that a course of six lectures on the Outlines of Local Government in Scotland is to be delivered in connexion with the class of political economy by Miss Mabel Atkinson, M.A.

#### *Glasgow Central Dispensary.*

At a meeting of the directors of this institution held on Dec. 15th the following appointments were made: Dr. F. J. Charteris to be physician, Dr. George Jubb to be assistant physician, and Dr. John Gordon to be surgeon in the department of urinary diseases.

Dec. 17th.

### IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *The Smyth Fund.*

THE contributions to the Belfast branch of the fund for the widow and family of the late Mr. W. Smyth of Burton Port, co. Donegal, amount to over £800.

#### *Royal College of Surgeons in Ireland: New Regulations for Academical Costume.*

The general body of the Fellows are authorised to wear a black stuff Master of Arts gown, faced with a St. Patrick's blue Irish poplin border, five inches in width, narrowing round the collar behind and extending to each end of the gown in front. Inside the blue poplin there shall be a crimson Irish poplin lining, five inches in width, and of similar extent to the blue. A black velvet college cap with St. Patrick's blue and crimson tassel. This gown and cap may be worn at all public functions, college ceremonials, state and civic public meetings: and on all occasions when academical costume is worn by the general body of the Fellows of the Royal College of Surgeons of England and of the Royal College of Surgeons, Edinburgh.

#### *County Antrim Infirmary.*

At a meeting of the board of management of the County Antrim Infirmary, held in Lisburn on Dec. 13th, the chairman (Mr. J. M. Barbour) announced that his wife had invested £1000 in Northern Counties debenture stock for the use of the County Antrim Infirmary, the condition of the gift being that the interest should be paid to the County Antrim Infirmary so long as it remained in Lisburn, but in the event of that institution being removed from that town then the money would be devoted to some local charity for the benefit of Hilden and Lisburn. A very cordial vote of thanks was passed to Mrs. Barbour for her very generous gift.

#### *Dinner to Professor J. Lorrain Smith.*

A dinner by his old pupils was given to Dr. J. Lorrain Smith in Ye Old Castle Restaurant, Belfast, on Dec. 10th on his being appointed professor of pathology in Queen's College, Belfast. Between 50 and 60 persons were present, including the President of the North of Ireland branch of the British Medical Association, the President of the Ulster Medical Society, the President of Queen's College, Belfast, and Sir James Musgrave, D.L. (the founder of the chair), all of whom were invited guests. Professor J. Symington presided and the principal toast of the evening, which was very cordially received, was "The New Professor of Pathology," to which Dr. Smith replied.

#### *The Poor-Law System.*

A meeting was held in the Belfast Chamber of Commerce on Dec. 13th for the purpose of establishing an association for the province of Ulster which shall have for its objects the holding of conferences and the taking of steps to bring about amendments in the Poor-laws and in their administration. It was decided to form an Ulster Poor-law Conference Association, the objects being to promote united action on the part of Poor-law boards and other public bodies and persons interested in Poor-law administration in the province of

Ulster and throughout Ireland; to procure such alterations in the law and in the regulations of the Local Government Board and such improvements in Poor-law administration as from time to time may be required; to promote the holding of conferences on Poor-law subjects; and to endeavour to bring about the assimilation of the Irish to the English law which gives a legal status to such conferences. A representative council of ladies and gentlemen interested in Poor-law reform was appointed to control and manage the affairs of the association.

#### *Death of Two Ulster Medical Men.*

I regret to announce the death of two Ulster medical men—Dr. Samuel H. Campbell of Portrush, co. Antrim, and Mr. John S. Ward of Lisburn, co. Antrim. The former gentleman was of advanced years, as he graduated M.D. of Glasgow in 1844. For a long time he was medical officer of the Portrush Dispensary and Admiralty surgeon, and he practised for many years in the well-known Irish summer retreat, Portrush, where he died on Dec. 12th. Mr. John S. Ward was an Englishman who came to Lisburn as a young man, to teach in the Ulster Provincial School, an institution belonging to the Society of Friends, of which he was a member. Later, after his marriage, he entered the business of pharmaceutical chemist and subsequently, in 1884 (after studying in Belfast and Edinburgh), he obtained the qualification of the Royal College of Physicians, Edinburgh. For a time he was assistant surgeon and apothecary to the County Antrim Infirmary, Lisburn, and he was surgeon to the Brookfield Agricultural School, Lisburn. Mr. Ward had been in his usual health on Sunday, Dec. 15th, when he attended the service in the meeting-house of the Society of Friends at Lisburn. He died suddenly the next morning from cardiac failure. Mr. Ward enjoyed the respect and esteem of a large circle of friends. He was buried at Lambeg on the 18th. He leaves a widow, but no family.

#### *Royal Victoria Hospital, Belfast.*

Lieutenant-Colonel Andrew Deane, I.M.S. (retired), has been appointed Superintendent of the Royal Victoria Hospital, Belfast.

Dec. 18th.

### PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *Lumbar Puncture as a Means of Diagnosis in Fracture of the Base of the Skull.*

At the meeting of the Society of Surgery held on Dec. 4th M. Poirier related the case of a patient who had been admitted to hospital under his care on Sept. 16th suffering from the sequelæ of a fall on the nape of the neck. He complained of pains in the head and of constant vomiting and had a wound of the skin in the occipital region. His temperature was 37.2° C. and his pulse was 110. On the day after admission he became semi-comatose and at times gave the hydrocephalic cry, but no paralysis was present. Cerebral meningitis was suspected. The *interne* of the ward performed lumbar puncture and a jet of cerebro-spinal fluid tinged with blood spurted out. Between 30 and 40 grammes of fluid were drawn off. This slight operation had a prompt and astonishing effect. Within a few hours the coma, the vomiting, and the headache had disappeared, and on the following day (the fourth since the accident) the patient talked about leaving the hospital. He continued to improve and, as if to confirm the diagnosis, paralysis of the right internal rectus and conjunctival ecchymoses developed in each eye. He left the hospital, although advised not to do so, on the eleventh day and was not seen again. In this case the diagnosis was cleared up by the result of the lumbar puncture and, moreover, the evacuation of the fluid seemed to have a remarkably beneficial effect. M. Rochard cited a case, that of a child with severe cranial injuries, in whom he had brought about rapid and marked relief by the withdrawal of 20 cubic centimetres of cerebro-spinal fluid. He also mentioned another case of fracture of the skull in which he performed lumbar puncture for the relief of persistent headache 15 days after the accident with marked relief. M. Tuffier remarked that he had already drawn the attention of the society to the value of lumbar puncture in fractures of the skull as a means both of diagnosis and treatment. He thought that the fluid should be collected in three separate tubes so as to make

certain that the red colour was that of the fluid itself and did not come from puncture of a spinal vein. The cerebro-spinal fluid might vary from a bright red to pink or yellow and contained no red corpuscles.

#### *Election to the Academy of Medicine.*

Dr. Albert Josias, physician to the Bretonneau Hospital, has just been elected a member of the Academy of Medicine. He is one of the few Paris hospital physicians who has turned his attention to the all-important subject of state medicine. He took his doctor's degree in 1881, his thesis being upon the subject of Typhoid Fever in Elderly Persons, the matter for which he had collected at the Tenon Hospital in the wards of Dr. Rendu. After serving as a prison surgeon in the central prison infirmary of the Seine, where he worked through the cholera epidemic of 1884 and the small-pox epidemic of 1887, he was made physician in succession to the Pitié, the old Trousseau, and the Bretonneau Hospitals. He is now consulting physician to the veterinary school at Alfort.

#### *Accidents to Workmen during the Exhibition of 1900.*

M. Wagner has written a thesis upon accidents occurring to workmen during the Exhibition of 1900. These figures deal mainly with the year 1899, in which year, of course, the works were in progress. During that year the Champs Elysées Station alone treated 1171 cases of accident and the Invalides Station 572. Eight deaths occurred, three from fracture of the skull, one from fracture of the spine, one from fracture of the pelvis, two from severe abdominal contusions, and one from drowning in the Seine. This is a high proportion of deaths seeing that the figures are those for one year only. Another table gives the figures of serious surgical accidents occurring in various works from the year 1896 to July 1st, 1901. There were 249 cases of injury to the eye and 152 fractures, of which 23 were cases of fractured ribs, 21 were of fractured fingers, 16 were fractures of the radius, and 16 were cases of Pott's fracture. These figures show that serious fractures like those of the skull or of the pelvis are by no means common. M. Wagner unfortunately gives no details of treatment. It is to be hoped that when the full medical report of the Exhibition is published details of treatment and of the after-progress of the cases will be given.

#### *Another Medical Play.*

The French stage continues to occupy itself more and more with medical subjects. One house follows another in producing plays of this description, the latest to do so being the Renaissance Theatre. Here there has just been given a new play by M. Masson Forestier, called *The Country Doctor*. It is a story of disillusion. A young medical man takes over a practice in a country district which, however, does not offer very great advantages. The other practitioner in the village is an elderly *officier de santé*, by name Palfrène, and most of the well-to-do patients much prefer "old Doctor Palfrène" to the young newcomer. Palfrène falls ill from pneumonia and his wife seeks the aid of the young practitioner, whose name is Valadier. He treats his patient after the latest fashion and among other things prescribes cold baths. This is too much for Madame Palfrène, who says that her husband shall be treated as he treats his own patients—namely, by bleeding. Valadier is obliged to agree under protest, for he knows that the Paris professor who has been called into consultation and who is just on the point of arriving, always argued that this method of treatment was quite out-of-date. When he arrives he congratulates his young colleague, for Palfrène is quite recovered, thanks to the bleeding. Valadier is much puzzled by this and comes to the conclusion that it is quite possible that in future he will prefer old modes of treatment to new.

Dec. 17th.

### SWITZERLAND.

(FROM OUR OWN CORRESPONDENT.)

#### *Conjunctivitis due to a Specific Bacillus.*

DR. AUGUST COLOMB of Geneva has published a study of 97 new cases of conjunctivitis due to infection from a diplo-bacillus. Three years ago Dr. Chauvel of Paris, speaking in the name of the Academy of Medicine, remained very sceptical as to the existence of such a disease and the specificity claimed for it by Dr. Morax. He issued a warning against the multiplication of the number of varieties of

conjunctivitis, but facts—stubborn things—have proved the claims of Dr. Morax. The studies of Dr. Gonin, of Dr. Colomb, and especially of Dr. zur Nedden of Bonn, who published a series of 500 cases, have decided the question. Dr. Colomb now contributes nearly 100 new cases casually, not systematically, collected during the last two years, thus proving that this specific conjunctivitis is very common. The examination of the secretion was made directly on the cover-glass and if possible corroborated by cultures in suitable mediums (bouillon, glycerine-agar, and Löffler serum). 46 cases showed the symptoms of subacute or chronic conjunctivitis, 27 of blepharo-conjunctivitis especially localised at the borders, and 24 cases combined conjunctivitis with acute blepharo-conjunctivitis. Dr. zur Nedden collected his 500 cases in 18 months and calls the disease very widespread. In chronic cases the staphylococcus aureus was also present. Dr. Colomb especially mentions in detail eight observations concerning children under one year of age observed by him and other medical men. Inoculation proves the contagiousness of the affection and infections in families (36 cases) go to prove this also. There is probably direct transmission from one mucous membrane to another. The bacillus keeps alive some days in an aseptic tube, though exposed to light, and retains its virulence; thus the mode of transmission through handkerchiefs and towels and similar articles is possible and probable. The bacillus is easily stained with violet of gentian, the counter-proof of Gram being necessary. A magnifying power of 800 is desirable to ensure exact diagnosis.

#### *Koplik's Plaques in Measles.*

Dr. Emil Feer of Basle, *privat-docent*, has made observations on 200 cases of measles. In 89 per cent. of all these cases the Koplik plaques were to be seen from one to three days before the appearance of the skin eruption. As the patchy discolouring of the mucous membranes in the fauces precedes the skin eruption by one day only, Koplik's plaques ensure prompter diagnosis. Examination by direct light is desirable as one can easily overlook the plaques in artificial light if they are small and very localised. They consist often of very minute white or bluish-white spots on the surface of the mucous membrane of the cheek, generally opposite the molars. They are often to be seen more distinctly when they have a tiny hyperæmic border. They never occur in any other disease, especially not in German measles (*rötheln*) according to Dr. Feer's exact examinations in 37 cases. Dr. Feer mentions Falkener's and Slawyk's studies on the subject which concur with his own, and says that Lorand found the plaques in 329 out of 349 cases, a percentage of 95. In some cases the diagnosis of measles in the incipient stage enables the medical man to make his diagnosis so soon that isolation proves of effect and the other children in the family escape infection. Such prophylactic measures must not be underrated as measles may prove very dangerous and sometimes fatal in young and feeble children.

Dec. 16th.

### NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

#### *Proposed Changes in the United States Army Medical Department.*

IN this country, as in Great Britain, although to a lesser degree, there has been for a considerable time grave dissatisfaction with the manner in which the Army Medical Department is conducted. Major W. O. Owen, surgeon, United States Army, read recently before the Academy of Medicine at Cincinnati a paper which voiced the sentiments of the malcontents and which has provided food for discussions in medical and lay journals. The author wants legislation by Congress to allocate the responsibility for insanitary conditions among troops and to provide punishment for the fault. He would likewise give the right of self-government to the Medical Department with regard to the supervision and transportation of medical supplies. Major Owen holds that the Medical Department should have in its hands all matters relating to the sanitary care of troops, so that its authority should not be overruled, as is often the case, by the commanding officer. Major Owen's plea that the medical department of an army should have complete and independent control of those matters which directly appertain to it

has much to be urged in its favour. However, so drastic a plan is impracticable. A training in the principles of sanitation at the military schools of the country could effect nothing but good, and such a step is recommended by the *Medical Record* and other medical journals. It also seems to be the general opinion that Major Owen's argument that the Medical Department should control its own transport is right. Increased powers granted to the Medical Department would prevent the recurrence of the state of chaos which prevailed during the Spanish-American war so far as the forwarding of medical supplies was concerned, and for which the Medical Department was wrongly held accountable.

*Report of the Surgeon-General of the United States Navy for 1900.*

This report has just been issued and it states that the health of the Navy and Marine Corps for the calendar year 1900 was satisfactory, although there was a slight increase in the ratio of admissions to the sick list per 1000 of strength as compared with that for the previous year. The average strength of the active list for 1900 was 23,756. The total number of admissions from all causes was 18,936; of these 15,829 were for disease and 3107 for injury, giving ratios per 1000 of strength of 688.90 and 145.52. During the year there were 211 deaths, the death-rate per 1000 of forces being 8.88, divided as follows: for disease, 5.01; and for injury, 3.87. The admissions to the sick list during the year included 1699 cases of epidemic catarrh, 983 of malarial diseases, 963 of wounds, 902 of diarrhoeal affections, 828 of rheumatic affections, 336 of dengue, 246 of alcoholism, 195 of dysentery, 175 of typhoid fever, 160 of measles, 132 of mumps, 128 of heat stroke, 117 of pulmonary tuberculosis, 100 of organic heart disease, 99 of pneumonia, 40 of nephritis, 37 of rubella, 10 of small-pox, two of yellow fever, and one of bubonic plague. Epidemic catarrh was by far the most extensive and widespread complaint to attack the men of the United States Navy. The returns do not indicate that the unusual number of cases was due to conditions peculiar to the naval service, but rather that it was incident to a pandemic spread of the disease. Malarial affections were very common on the Asiatic and North Atlantic Stations. Typhoid fever was more prevalent than usual, especially in the tropics. Diarrhoeal affections on the whole were less than in former years, but dysentery caused a larger number of admissions than in 1899. Dengue was, as in previous years, especially prevalent at Cavite, but the attacks were generally mild in type, ending in complete recovery and usually in immunity to the disease. Of the 10 cases of small-pox reported five proved fatal.

*The Water-supply of New York.*

A question to be faced by the new municipality of New York is that of the water-supply. No fault can be found with the generosity of those who planned the reservoirs which at present provide New York with water so far as quantity is concerned, but the quality at certain periods of the year is altogether another matter. Although analysis has demonstrated that even when most turbid the metropolitan drinking-water does not contain bacilli particularly harmful to health, yet at the same time it is on occasions disagreeable, not to say nauseous. The remedy for this state of affairs, according to experts on the subject, is to provide an efficient system of sand filtration. Such a measure would necessitate the expenditure of an immense sum of money, but the gain to the city from a health point of view ought amply to justify the primary cost.

*Vaccination and Tetanus.*

A short time ago several cases of tetanus occurred in Camden, New Jersey. The anti-vaccinationists, inspired doubtless by the fact that tetanus in St. Louis has been recently traced to impure diphtheritic antitoxin, proclaimed that lockjaw in Camden was due to poisonous vaccination lymph. This allegation was seized upon by the sensational lay journals and much prejudice has been aroused against vaccination. However, the Camden Board of Health have made a report on the matter which utterly refutes the mischievous statements made by the opponents of vaccination. They made a thorough and exhaustive investigation into the case and came to the following conclusions: "The tetanus cases in Camden are to be explained on atmospheric and telluric conditions which have prevailed in Camden during the past six weeks. There has been a long period of dry weather with high winds, so that tetanus germs, which have their normal habitat in the earth, dust, dirt of stables, &c., have been

constantly distributed in the atmosphere. It is noticeable in all the cases after careful examination as to the cause that the wound had been exposed by the scab being knocked off or removed, or else the arm had been injured and infection resulted; frequently children scratched the vaccinated arm with their dirty finger-nails and infected the wound." It is satisfactory that proof has been brought to show that impure lymph was not the cause of the cases of tetanus in Camden and the report of the board of health of that town should tend to reassure the public as to the innocuousness of vaccination. At the same time the fatalities from tetanus in Camden proceeding indirectly from carelessness in guarding the wounds produced by vaccination should act as a warning and impress upon the minds of the vaccinated the need of carefully protecting such wounds.

Dec. 10th.

## AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

*Proposed Hospital for Consumption for Sydney.*

A DEPUTATION of medical men and prominent citizens of Sydney recently waited on the Premier to ask the Government to establish a special hospital for the treatment of consumption. The Mayor of Sydney, Sir James Graham, M.D. Edin., who introduced the deputation, said they wanted done for consumptives what was done for other infectious people. At present consumptives, because infectious, could not be admitted into ordinary hospitals. What was wanted was a State institution, within easy access of the city, containing about 200 beds, where these patients could be sent and treated till they could, if found suitable, be sent to sanatoriums in the country, or if unsuitable cared for till they died. The cost would be about £50,000. The Premier said that he had every sympathy with the proposal and was anxious to avoid delay. He intended to erect a wooden building as a tentative arrangement at Long Bay and would ask Parliament to vote the necessary money on the Supplementary Estimates. The construction of more extensive buildings could be considered later.

*Prince Alfred Hospital Extension.*

The report of the Public Works Committee on the proposed additions to the Prince Alfred Hospital which was presented to Parliament confirmed the expediency of the proposal, provided the cost did not exceed £45,000 and that such alterations were made in the plans as to ensure improved ventilation and lighting. The plans prepared and approved by the hospital board had been condemned by private architects examined by the committee. The wings, in which were to be situated the new lecture-rooms and operating theatre, would prevent a considerable part of the southern side of the pavilion for patients getting the sun in winter, while on the western side the wards were unprotected from the extreme heat of the summer. The Government architect, while not agreeing with their criticisms as to the general design, admitted that several objections as to details were worthy of consideration and submitted an amended design for the educational portion of each pavilion which embodied several of the improvements suggested by the criticising architects.

*Municipal Sanitation in Sydney.*

The outbreak of the plague has stirred up the Sydney Municipal Council to considerable activity in sanitation, and with a medical mayor and a "reform" council great progress has been made. One of the first steps was the appointment of a city health officer, and that officer—Dr. W. G. Armstrong—recently detailed to a number of medical practitioners, invited by the mayor, the sanitary work accomplished. Sanitary inspectors, most of whom had passed the tests of the London Sanitary Institute, had been appointed and assigned to definite districts and had to inspect every house in their respective districts at least twice a year and to record every sanitary fact about each dwelling at each inspection. Where defect was found legal action was taken to remedy it. A special inspector had been told off to look after common lodging-houses and he had reported on over 1000, their sanitary condition showing much improvement as regards air-space, ventilation, and cleanliness. Active measures of disinfection had been carried out in cases of scarlet fever, diphtheria, and typhoid fever, the existence of which was reported in a routine

way. Disinfection of premises where phthisis had occurred was also carried into effect. Whenever a death from phthisis occurred the house was visited and disinfection was offered, but other houses could only be reached through the voluntary aid of the profession. Fumigation had been discarded as a tedious, clumsy, and unsatisfactory procedure, and instead all walls, floors, and furniture were sprayed with formalin, and all linen, bedding, &c., were soaked in a solution of corrosive sublimate, 1 in 1000.

*Students' Fees at the Melbourne Hospital.*

A deputation, representing the council of the Melbourne University, the faculty of medicine, and the honorary staff of the hospital, recently waited on the committee of the Melbourne Hospital and asked that the increase in fees charged to medical students from £5 to £20 should not be continued, as it was excessive and would drive students to other medical schools where the fees were lower and where, moreover, greater advantages were given for the fees paid. The committee at a subsequent meeting decided that the fees for the full undergraduate course should be £10 10s.

*Charge against a Medical Man.*

Dr. Frederick William Marshall, a medical practitioner, was on Oct. 3rd tried at the Sydney Criminal Court for having performed an alleged illegal operation on a young woman. The jury found him not guilty.

*Return of Dr. J. A. Dick.*

A public welcome of a most enthusiastic nature was accorded to Dr. J. Adam Dick, of the Army Medical Corps, who has just returned from 21 months' active service in South Africa. Dr. Dick was with Lord Roberts, General French, and General Clements, and was mentioned in Lord Roberts's first despatch for special and meritorious service. Colonel Fiaschi said that there was no more ardent or devoted medical man at the front than Dr. Dick. In the crowded hospitals, on the long marches, on the field under fire, Dr. Dick always did more than his duty.

*Obituary.*

The news of the sudden death of Mr. R. S. Bright, M.R.C.S. Eng., L.M., L.S.A., of Hobart, was received with universal regret and sorrow by the profession in Australia. Mr. Bright was President-elect of the next meeting of the Australasian Medical Congress to be held in Hobart in February next, and it will be very difficult to fill his place. Mr. Bright was born in London in 1835, and began to practise his profession in Hobart in 1859. He was the senior member of the honorary staff of the Hobart Hospital and was president of the medical section of the Royal Society of Tasmania. He had by far the largest practice in Tasmania and was held in universal esteem both for his high professional attainments and his personal qualities. He took a deep interest in art and literature and was a member of the committee of the Hobart Museum and Art Gallery. He died in harness. He had some affection of the heart and was attacked with a little bronchitis on Sunday, Oct. 27th, but carried out his professional duties as usual. Towards morning he became very weak and he died in his sleep at 9 A.M. on Monday, Oct. 28th.—I also regret to have to record the death of Mr. W. Lloyd Mathias of Darlington, Sydney, from pneumonia, at the early age of 37 years. Shortly after taking his qualifications of M.R.C.S. Eng. and L.R.C.P. Lond. he came to Sydney and entered into partnership with the late Dr. Kyngdon whom he subsequently succeeded. He was very popular both with the profession and the public.

Nov. 6th.

**DONATIONS AND BEQUESTS.**—Queen Charlotte's Hospital has received a grant of £100 from the Goldsmiths' Company and £10 10s. from the Salters' Company.—The Royal Dental Hospital, Leicester-square, has received £100 for the general maintenance fund and £100 for the new building fund from the Goldsmiths' Company, and £105 from an anonymous friend.—Under the will of the late Mr. Bernhard Charles Hirsch of Hampstead certain sums forming part of the residuary estate are left in trust to the following hospitals: to the North London Hospital for Consumption, £3000, and to the North-Eastern Hospital for Children, £1000. £1000 are also left for the endowment of a cot at the Great Ormond-street Hospital. The Prince of Wales's Hospital Fund will probably benefit to the amount of £25,000 or more.

## Obituary.

DAVID RITCHIE PEARSON, M.D. EDIN., M.R.C.S. ENG.

DAVID RITCHIE PEARSON, who died on Dec. 5th, near Rye, in Sussex, was the son of the late Major Pearson, of the Honourable East India Company, and was born in April, 1837, and educated at Madras College, St. Andrews, and Edinburgh University. In 1858 he was appointed assistant surgeon to the Rifle Brigade and served for two years in India. He settled in practice in Kensington in 1863, where he remained until his retirement in 1900. Dr. Pearson served as assistant surgeon in the Tower Hamlets Militia and the London Scottish Volunteers. He was for 35 years honorary physician to the National Industrial Home for Crippled Boys and worked hard on the managing committee of that institution. He also helped to found, and took great interest in, the Kensington Dispensary, of which for 25 years he was physician and a member of the medical board. He was consulting physician to the Industrial Institution for the Blind and to the Working Ladies' Guild. Dr. Pearson was a man of attractive personality, gentle, wise, and dignified, with a touch of old world courtesy. He never acquired a very large practice, and amongst his patients were a considerable number of people of gentle birth but little fortune who seemed to gravitate into his kind and sympathetic hands and always commanded his utmost efforts for their welfare. But rich and poor gained confidence from his steadfast character and skilful handling and his memory will be held in affection and respect by many friends and former patients.

Dr. Pearson contributed some thoughtful papers to the Pathological and Clinical Societies of London and to the *British Medical Journal*. He married in 1869 Jane, eldest daughter of Mr. James Rae of Phillimore-gardens, Kensington, who survives him, and has left a family of several children, of whom four are sons; one, Dr. Allan Pearson, is in the Army Medical Service, another is in the Royal Engineers, and two are in the Indian Civil Service.

JENKIN LLOYD, M.B., C.M. GLASC.

DR. JENKIN LLOYD of Bethesda, Carnarvonshire, died on Nov. 20th, at the age of 48 years, after an illness of only a few hours' duration. On the morning of that day he went out in his usual health, but returned at 11 A.M. feeling ill, soon passed into a state of unconsciousness and expired about 6 P.M. Dr. Lloyd was a native of Llanddeiniol, Cardiganshire, and received his medical education at Glasgow University, where he graduated as M.B. and C.M. in 1881. Returning to Wales he made his home in Blaenau Ffestiniog, but after some years he went to Bethesda as assistant to Dr. Hughes, ultimately becoming surgeon to the Bangor slate quarry. In 1891 he married the niece of Dr. Hughes, Miss Williams of Carnarvon, daughter of Ioan Mai, the well-known bard and *litterateur*. Dr. Lloyd was an ardent Welshman; he also had a reputation as an excellent bard and was a master of the difficult Welsh metres. His natural kindness of heart and sympathetic manner gained for him many friends, by whom he is much missed. The funeral took place on Nov. 23rd in Glanogwen Churchyard.

**DEATHS OF EMINENT FOREIGN MEDICAL MEN.**—The deaths of the following eminent foreign medical men are announced:—Dr. C. E. Stoner, Professor of Surgery in the Iowa College of Physicians and Surgeons.—Dr. Francisco Melendez y Herrera, Professor of Anatomy in the Cadiz Medical School.—Dr. Gouguenheim of Paris.—Dr. Jarvis S. Wight, Professor of Clinical Surgery in Long Island College Hospital, Brooklyn.—Dr. Mascara, Professor of Medical Pathology in the Manila Medical School.—Dr. N. Guardia, formerly Professor of Midwifery in the University of Caracas.—Dr. G. Chiarleoni, Professor of Midwifery in the Palermo Medical School.—Dr. F. de Castro, Professor of Medical Propeutics in the University of Rio de Janeiro.

## Medical News.

UNIVERSITY OF LONDON.—At examinations held recently the following candidates were successful:—

### M.B. EXAMINATION FOR HONOURS.

*Medicine*.—First Class: Alfred Ernest Jones (gold medal), University College; Henry Crew Keates, Guy's Hospital; John Henry Sheldon, Owens College and Manchester Royal Infirmary; Harold Weightman Sinclair, St. Thomas's Hospital; and Charles James Thomas, B.Sc. (scholarship and gold medal), St. Bartholomew's Hospital. Second Class: Carey Franklin Coombs, St. Mary's Hospital; Myer Coplans, Guy's Hospital; Robert Kelsall, Owens College and Manchester Royal Infirmary; and Albert Edward Thomas, St. Bartholomew's Hospital. Third Class: Ernest Gilbert Bark, Queen's and General Hospitals, Birmingham, and Birmingham University; William Henry Bowen, Guy's Hospital; John Charlton Briscoe, King's College; Ellen Mary Sharp, London (Royal Free Hospital) School of Medicine for Women; James Ernest Stratton, University College; and George Ernest Waugh, Cambridge University and University College.

*Obstetric Medicine*.—First Class: Alfred Ernest Jones (Scholarship and Gold Medal), University College; John Henry Sheldon, Owens College and Manchester Royal Infirmary; and Charles James Thomas, B.Sc. (gold medal), and Ernest Eric Young, St. Bartholomew's Hospital. Second Class: Olive Claydon, London (Royal Free Hospital) School of Medicine for Women; Carey Franklin Coombs, St. Mary's Hospital; Ellen Mary Sharp, London (Royal Free Hospital) School of Medicine for Women; Harold Weightman Sinclair, St. Thomas's Hospital; and William Henry Wynn, B.Sc., University and Queen's and General Hospital, Birmingham. Third Class: Arthur Edmunds, B.Sc., King's College; Robert Kelsall, Owens College and Manchester Royal Infirmary; and John Ford Northcott, Guy's Hospital.

*Forensic Medicine*.—First Class: Ellen Mary Sharp (scholarship and gold medal), London (Royal Free Hospital) School of Medicine for Women; and Albert Edward Thomas (gold medal), St. Bartholomew's Hospital. Second Class: Robert Ellis Roberts, B.Sc., St. Thomas's Hospital; and William Henry Wynn, B.Sc., University and Queen's and General Hospitals, Birmingham.

### B.S. EXAMINATION.

*First Division*.—Janet Mary Campbell, London (Royal Fever Hospital) School of Medicine for Women; Felix Bolton Carter, M.D., University College; Arthur Edmunds, B.Sc., King's College; Ernest Lewis Lilley, Charing Cross Hospital; Charles Archibald Scott Ridout, St. Bartholomew's Hospital; Thomas Copeland Savage, University College; and Ralph Paul Williams and W. Halliburton McMullen, King's College.

*Second Division*.—William Fielding Addey, University College; Kenneth Bush Alexander, Guy's Hospital; William Billington, Birmingham Medical School and King's College; Charles Henry Bullen, Birmingham Medical School; Adrian Caddy, St. George's Hospital; Katherine Chamberlain, London (Royal Free Hospital) School of Medicine for Women; Carey Franklin Coombs, St. Mary's Hospital; David Leighton Davies, University College; Herbert Charlton Jonas, St. Thomas's Hospital; Helena Gertrude Jones, London (Royal Free Hospital) School of Medicine for Women; Henry Crew Keates, Guy's Hospital; Robert Kelsall, Owens College and Manchester Royal Infirmary; Herbert James Marriage, St. Thomas's Hospital; Richard Rothwell Mowll, King's College; Frank Herbert Noko and William Trethowan Rowe, St. Bartholomew's Hospital; Douglas Wilberforce Smith, Guy's Hospital; William Lunsden Stuart, King's College; Kenneth Vincent Trubshaw, Guy's Hospital; Blanche Elinor Walters, Royal Free Hospital; Herbert Septimus Ward, Cardiff Medical School and St. Bartholomew's Hospital; Florence E. Willey, B.Sc., Louisa Woodcock, and Edith Louisa Young, London (Royal Free Hospital) School of Medicine for Women; and Ernest Eric Young, St. Bartholomew's Hospital.

N.B.—The foregoing lists, published for the convenience of candidates, are provisional only and are not final until the reports of the examiners shall have been confirmed by the Senate.

UNIVERSITY OF CAMBRIDGE.—At the examinations for medical and surgical degrees, Michaelmas term, the following candidates were successful:—

### FIRST EXAMINATION.

*Part I. Chemistry and Physics*.—G. D. Alexander, B.A., Caius; F. W. Argyle, St. John's; F. O. Arnold, Trinity; J. Barcroft, M.A., and H. Bowring, King's; P. E. Braham, Clare; J. P. Buckley, Trinity; H. V. Byatt-Byatt and B. P. Campbell, Clare; H. B. Carlyll, St. John's; R. C. Chance, Trinity; H. Chapple, St. John's; L. Colledge, Caius; A. F. Comyn, Pembroke; R. Crawford, Jesus; N. R. Cunningham, B.A., and G. H. Davy, Caius; A. T. Densham, St. John's; H. Dimock, Sidney Sussex; A. C. J. Milwin, Corpus Christi; F. S. Eschwege and A. W. Ewing, Christ's; N. M. Fergusson, Magdalene; H. B. H. Follett, Clare; L. A. Fothergill, Emmanuel; N. H. Gandhi, Caius; G. Graham, Trinity; B. Haigh, Caius; H. W. Hesse, Trinity Hall; F. S. Hewett, Caius; T. R. Hodgson, Christ's; G. Hoffmann, Caius; W. D. Hopkins, Trinity Hall; N. W. Jenkin, Christ's; A. R. Jordan, Clare; J. L. Joyce, King's; R. P. Lamb, Trinity; A. A. H. Lawrence, B.A., and W. S. Leicester, Emmanuel; R. G. Markham, Caius; W. Mathieson, Sidney Sussex; L. Meakin and M. W. B. Oliver, Trinity; E. S. Perrin and A. H. Platt, Caius; A. V. Poyser, Magdalene; C. H. Rippmann, B.A., King's; J. H. Roberts, Emmanuel; S. H. Scott, St. John's; R. E. Smith, Emmanuel; C. Stanley-Clarke, B.A., Caius; F. A. Stockdale, Magdalene; O. Teichmann, F. B. Treves, B.A., and W. W. Treves, Caius; G. Walker, Trinity; K. M. Walker, Caius; D. R. P. Walther, Pembroke; C. E. Whitehead, Caius; and T. M. O. Williams, Christ's.

*Part II. Elementary Biology*.—F. O. Arnold, Trinity; E. W. Atkinson, Caius; J. Barcroft, M.A., King's; H. S. Berry, Clare; J. P. Buckley and L. S. T. Burrell, Trinity; H. V. Byatt-Byatt, Clare; H. J. B. Cane, Caius; P. Clayton and R. Colgate, Trinity; R. Crawford, Jesus; G. H. Davy, Caius; H. Dimock, Sidney Sussex; N. H. Gandhi and J. F. Gaskell, B.A., Caius; G. Graham, Trinity; B. Haigh, Caius; H. A. Hancock, Non-Collegiate; H. W. Hesse, Trinity Hall; F. H. Holl, Trinity; W. D. Hopkins, Trinity Hall; E. C. D. Marriage, Clare; J. H. B. Martin, Emmanuel; B. N. Nutman, Jesus; W. S. Perrin and A. H. Platt, Caius; C. H. Rippmann, B.A., King's; S. H. Scott, St. John's; R. C. Standing-Smith, B.A., Catharine; H. H. Taylor, Pembroke; K. M. Walker, Caius; H. K. Waller, Trinity; and C. E. Whitehead and W. H. Williams, Caius.

### SECOND EXAMINATION.

*Part I. Pharmaceutical Chemistry*.—W. A. Alexander, Caius; J. H. Board, Pembroke; L. B. Cane, King's; A. de C. C. Charles, Magdalene; H. J. Clarke, Trinity; E. B. Clayton, Caius; A. W. C. Drake, Pembroke; J. R. Draper, St. John's; D. Embleton, Christ's; M. F. Emrys-Jones, Caius; S. Gooding, B.A., St. John's; G. S. Haynes, King's; G. A. M. Heydon and G. Holroyd, B.A., Christ's; R. S. Jenkins, St. John's; C. E. M. Jones, King's; S. G. Luker, Pembroke; R. M. Miller, B.A., Clare; H. E. H. Oakley, B.A., St. John's; E. V. Oulton, Christ's; D. G. Pearson, Pembroke; M. Phillips, B.A., Caius; J. H. Pratt, Trinity; F. Shingleton Smith, B.A., King's; S. J. Steward, Downing; R. Svensson, Caius; R. Wade, B.A., Christ's; B. Wahby, Non-Collegiate; G. L. Webb, Caius; H. N. Webber, St. John's; A. Wilkin, B.A., King's; and W. H. Woodburn, B.A., and O. K. Wright, Christ's.

*Part II. Human Anatomy and Physiology*.—C. B. M. Aldridge, B.A., Christ's; E. Beaton, Caius; H. C. Cameron, B.A., St. John's; M. A. Cassidy, B.A., and H. M. Clarke, B.A., Clare; E. R. T. Clarkson, M.A., H. Selwyn; R. P. Cockin, B.A., Caius; W. I. Cumberlidge, Christ's; C. E. Droop, B.A., Trinity; T. Drysdale, B.A., Jesus; L. Dukes, B.A., Trinity; T. W. N. Dunn, Caius; R. G. Elwell, B.A., Trinity; H. J. Fardon, B.A., Christ's; N. C. Fletcher, B.A., Queen's; D. H. Fraser, B.A., Caius; S. H. Gibson, B.A., and H. E. Graham, B.A., Jesus; R. E. G. Gray, B.A., Pembroke; J. R. C. Greenlees, B.A., St. John's; C. F. R. Hall, B.A., Trinity; H. Hardwicke-Smith, B.A., St. John's; W. H. Hastings, Trinity; W. Hastings, Christ's; R. F. V. Hodge, Emmanuel; W. R. Honeyburne, Peterhouse; E. C. Hughes, B.A., and N. H. Illingworth, B.A., Clare; F. A. Juler, B.A., and C. King, B.A., Trinity; J. C. Lawton-Roberts, B.A., Clare; W. Lowe, B.A., Caius; G. H. K. Macalister, B.A., St. John's; J. McIntyre, King's; S. M. Mackenzie, B.A., Trinity; J. T. Macnab, B.A., Christ's; C. D. Mathias, B.A., Trinity; J. Mellanby, B.A., Emmanuel; A. H. Miller, B.A., Trinity; A. R. Moore, B.A., Caius; S. A. Owen, B.A., Trinity; C. E. Palmer, B.A., Caius; C. W. Ponder, B.A., Emmanuel; W. H. Robinson and E. W. S. St. B. B.A., Downing; G. C. E. Simpson, St. John's; W. H. Smyth, B.A., Emmanuel; W. H. Thresher, B.A., Caius; G. T. Western, B.A., Pembroke; W. P. Williams, Downing; E. K. Williams, B.A., Caius; and J. K. Willis, B.A., Queen's.

### THIRD EXAMINATION.

*Part I. Surgery and Midwifery*.—J. F. Alexander, B.A., Trinity; J. A. Andrews, B.A., St. John's; L. B. Axling, B.A., Christ's; L. E. H. R. Barker, B.A., Caius; G. D. Barton, B.A., Pembroke; J. M. Bennion, B.A., St. John's; E. Bigg, B.A., Caius; F. Bryan, B.A., King's; C. V. Bulstrode, B.A., Trinity; J. W. E. Cole, B.A., Corpus Christi; G. L. Crimp, B.A., Caius; H. Davies-Colley, B.A., Trinity; S. Dodd, B.A., Caius; F. P. Edwards, Downing; A. F. Elliott, B.A., Emmanuel; R. B. Etherington-Smith, B.A., Trinity; A. O. M. Fehrsen, B.A., Caius; W. S. Fox, M.A., Trinity; G. W. Greene, B.A., Downing; G. P. D. Hawker, B.A., Caius; F. B. Manser, Peterhouse; J. C. Matthews, B.A., Downing; C. L. Nedwill, B.A., Trinity; F. D. Nicholson, B.A., King's; G. B. Norman, B.A., St. John's; F. H. Parker, B.A., Pembroke; J. E. Payne, Peterhouse; J. S. Pearson, B.A., Trinity; H. V. Pryce, B.A., St. John's; R. M. Ranking, B.A., Pembroke; F. Richmond, B.A., Clare; C. Roper, B.A., Caius; E. A. Ross, Trinity; H. M. Scaping, B.A., Clare; E. S. Scott, B.A., Pembroke; W. T. Scott, B.A., Clare; H. J. Shoue, B.A., Emmanuel; A. I. Simey, B.A., and G. E. St. C. Stockwell, B.A., King's; E. Weatherhead, St. John's; H. C. Williams, B.A., Pembroke; and J. A. Wool, M.A., St. John's.

THE Prince of Wales has now, we understand, definitely consented to become President of the National Association for the Prevention of Consumption and Other Forms of Tuberculosis.

ROYAL UNITED HOSPITAL, BATH.—The eighth annual amateur dramatic performances were given last week at the Theatre Royal, Bath, in aid of the funds of the Royal United Hospital. The pieces selected were *The Yeoman of the Guard* and *The Two Roses*. The performances were an undoubted success and it is thought that the hospital will benefit substantially.

INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH.—A meeting of the North-Western Branch of the Incorporated Society of Medical Officers of Health was held at the Victoria Hotel, Manchester, on Dec. 13th, when Dr. E. W. Hope described the administrative measures adopted in Liverpool upon an outbreak of plague. With regard to contacts the practice was to keep them in their own homes and for each one to be visited and interrogated daily for a fortnight. They were not taken to isolation homes belonging to the corporation. The annual dinner of the branch was subsequently held and was presided over by Mr. T. W. H. Garstang. The principal guest was Professor Sheridan.

Delépine who was presented during the evening by Mr. Francis Vacher, on behalf of members of the society and others, with a silver rose bowl. The presentation was intended to commemorate the election of Professor Delépine as an honorary fellow of the society.

**UNIVERSITY OF WALES.**—The Prince of Wales has been unanimously nominated as Chancellor of the University of Wales.

**BIRMINGHAM HOSPITAL SUNDAY FUND.**—The amount of £5547 has been received from the Hospital Sunday offerings this year, a sum which has not been equalled since the year 1876. The authorities of the General Hospital are the recipients on the present occasion.

**PRESENTATION TO A MEDICAL PRACTITIONER.**—Mr. M. A. Adams, F.R.C.S. Eng., was on Nov. 29th presented with his portrait in oils in recognition of his long gratuitous and beneficial services as surgeon to the Kent County Ophthalmic Hospital. The portrait will be suspended on the hospital walls.

**ROYAL BRITISH NURSES' SETTLEMENT FUND.**—A sale in aid of this fund will be held on Feb. 6th and 7th, 1902, at 24, Park-lane, London, W., the residence of Lord Brassey. Princess Christian will open the sale and will preside at one of the stalls. The object of the fund is to secure a comfortable old age for nurses.

**DRAINAGE OF DORCHESTER.**—At the meeting of the Dorchester Town Council held on Dec. 10th it was reported that the Local Government Board had approved of the method of sewage disposal in connexion with the new scheme being altered to the septic system; an additional loan of £3000 for sewerage works in the extended part of the town was also sanctioned.

**TAVISTOCK COTTAGE HOSPITAL.**—In the Chancery Division on Dec. 10th an order was made with reference to the £10,000 recently left by the late Mr. Gill to the Tavistock Cottage Hospital. It was decided that the authorities of the hospital should erect a wing to be called the Gill Wing at a cost of about £1500 and that the income of £10,000 should be applied to its maintenance, and an order was made accordingly.

**BEQUESTS TO WEST OF ENGLAND CHARITIES.**—The late Mr. E. Halsall of Bristol, who died in September last and who was for more than 50 years a member of the executive committee of the Bristol General Hospital, has bequeathed £200 each to the Bristol General Hospital and the Bristol Royal Infirmary.—The late Mr. H. D. Skrine of Claverton Manor, Somerset, has bequeathed £100 each to the Royal United Hospital, Bath, Bath Mineral Water Hospital, and the Bath Eye Infirmary.

**MEASLES AT EXMOUTH.**—At the meeting of the Exmouth District Council held on Dec. 4th, the medical officer of health reported that an outbreak of measles commenced in the middle of June and lasted until September. The total number of notifications received was 235 and 15 cases ended fatally, the rate of mortality being 6.38 per cent. He added that the number of notifications did not correctly represent the actual number of cases, for a large number of children had not been attended by a medical man and consequently were not reported.

**BRIDGWATER INFIRMARY.**—The eighty-eighth annual report of the Bridgwater Infirmary has just been issued. It states that during the 12 months ended August 31st last 339 in-patients had been admitted, compared with 348 in the previous year. The out-patients numbered 2141, against 2149 in 1900. The financial statement shows that the total income amounted to £3201, and the expenditure was £2314. The Hospital Sunday Fund amounted to £228. The reserve fund of the institution now amounts to £6800.

**SUICIDAL MANIA.**—At the Bristol Lunatic Asylum on Dec. 11th an inquiry was held concerning the death of a female patient, aged 50 years, who escaped on Dec. 9th and whose body was subsequently found in the river which runs close to the institution. A nurse whilst bathing the patients had left the keys of the ward doors on the bath-room mantelpiece, and the deceased contriving to get them was able to let herself out. A verdict of "Suicide whilst of unsound mind" was returned, and the coroner reproved the nurse for allowing the keys to go out of her possession.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ADDINSELL, J. H., M.R.C.S., L.R.C.P., has been appointed House Accoucheur to King's College Hospital.  
BALDWIN, G. P., L.R.C.S. Edin., has been appointed Public Vaccinator for the Shannon District of New Zealand.  
BOAG, JAMES, M.B., M.S. Glasg., has been appointed Certifying Surgeon under the Factory Acts for the Wishaw District of Lanarkshire.  
BREHAUT, A. H., M.R.C.S., L.R.C.P., has been appointed House Surgeon to King's College Hospital.  
BULTEEL, C. E., M.R.C.S., L.R.C.P., has been appointed House Physician to King's College Hospital.  
CARLE, F. C., M.R.C.S., L.R.C.P., has been appointed House Physician to King's College Hospital.  
CHEATLE, GEORGE LENTHAL, C.B., F.R.C.S., has been appointed Surgeon to the Italian Hospital, Queen-square.  
COATES, C. M., L.R.C.P. Edin., L.R.C.S. Edin., has been appointed Certifying Surgeon under the Factory Acts for the Creech St. Michael District of Somerset.  
CUDMORE, ARTHUR MURRAY, M.B. and Ch.B. Adel., M.R.C.S. Eng., has been appointed Honorary Assistant Surgeon to the Adelaide Hospital, Australia.  
DEANE, ANDREW, M.D., F.R.C.S.I., Lieutenant-Colonel, I.M.S. (retired), has been appointed Superintendent to the Royal Victoria Hospital, Belfast.  
HAMILTON, T. K., M.D., F.R.C.S.I., has been re-appointed Director of the Local Board of South Australia of the Australian Mutual Provident Society.  
HIND, WHEELTON, M.D. Lond., F.R.C.S. Eng., has been appointed Senior Honorary Surgeon to the North Staffordshire Infirmary and Eye Hospital.  
HOWSE, N. R., M.R.C.S. Eng., V.C., has been appointed Visiting Surgeon to the Gaol, New South Wales.  
JOHNSTON, S. E., M.B., C.M. Edin., has been appointed Assistant Resident Medical Officer to St. Mary's Hospital for Sick Children, vice T. E. Frazer-Toovey.  
KELYNACK, T. N., M.D., M.R.C.P., has been appointed Assistant Physician to the Mount Vernon Hospital for Consumption, Hampstead, Northwood, and Fitzroy-square.  
MAXWELL, W. W., M.B., Ch.B. Edin., M.R.C.S., L.R.C.P., has been appointed House Physician to King's College Hospital.  
MCLEOD, J. A., M.R.C.S., L.R.C.P., has been appointed House Accoucheur to King's College Hospital.  
PARKE, T. H., M.R.C.S., L.R.C.P. Edin., has been appointed Certifying Surgeon under the Factory Acts for the Tideswell District of Derbyshire.  
PEREIRA, JOSEPH ANTHONY WENCESLAUS, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the Exeter Workhouse.  
POOLER, EDWARD LESLIE, M.D. R.U.I., L.K.Q.C.P.I., has been appointed Medical Officer to the Destitute Poor and Aborigines of the District of Stirling, South Australia.  
ROGERS, F. C., F.R.C.S.E., L.R.C.P.E., has been appointed Medical Officer of Health to the Erith District Council, vice Mr. John Elliot, resigned.  
STANTON, W. D., F.R.C.S. Edin., has been appointed Honorary Consulting Surgeon to the North Staffordshire Infirmary and Kyo Hospital.  
STUART, W. L., M.B., B.S. Lond., M.R.C.S., L.R.C.P., has been appointed House Surgeon to King's College Hospital.  
WILLCOX, H. L., M.R.C.S., L.R.C.P., has been appointed House Surgeon to King's College Hospital.  
WORGER, R. G., M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed Surgeon under the Factory Acts for the Radstock District in the County of Somerset.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

**BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.**—Resident Surgical Officer. Salary £60, with board, washing, and attendance.  
**BIRMINGHAM GENERAL DISPENSARY.**—Resident Surgeon, unmarried. Salary £150 per annum, with rooms, fire, lights, and attendance.  
**BRADFORD ROYAL INFIRMARY.**—Dispensary Surgeon, single. Salary £100 per annum, with board and residence.  
**CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, 41, Sloane-square, Chelsea, S.W.**—Honorary Surgeon.  
**CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.**—Clinical Assistant.  
**CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, N.**—Second House Physician for six months, with board, washing, and residence. Salary at the rate of £30 per annum.  
**DEVONSHIRE HOSPITAL, Buxton, Derbyshire.**—House Surgeon and Assistant House Surgeon. Salary, House Surgeon £100 per annum, Assistant £50 per annum, with apartments, board, and lodging.  
**EYE AND EAR INFIRMARY, Liverpool.**—House Surgeon. Salary £80, with residence and maintenance.  
**GLASGOW ROYAL INFIRMARY.**—Superintendent. Salary £500 per annum, with board, residence, &c.  
**GREAT NORTHERN CENTRAL HOSPITAL.**—Assistant House Surgeon for six months. Salary at the rate of £30 per annum, and board.

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.**—Resident House Physicians for six months. Honorarium of £25.  
**JAFFRAY BRANCH OF THE GENERAL HOSPITAL, Gravelly-hill, near Birmingham.**—Resident Medical and Surgical Officer. Salary £150 per annum, with board, residence, and washing.  
**KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.**—House Surgeon. Salary £140 (increasing to £170), with rooms and attendance.  
**LANARK COUNTY ASYLUM, Hartwood, Glasgow.**—Third Assistant Medical Officer and Pathologist. Salary £120 per annum, with fees, board, washing, and residence.  
**LIGHTBURN JOINT HOSPITAL FOR INFECTIOUS DISEASES, Shettleston, near Glasgow.**—Resident Physician. Salary £130 per annum, with board, &c.  
**MOUNT VERNON HOSPITAL FOR CONSUMPTION, Hampstead, and North-wood, Middlesex.**—Honorary Anaesthetist.  
**NORFOLK COUNTY ASYLUM, Thorpe, Norwich.**—Junior Assistant Medical Officer, single. Salary £120 per annum, with board, lodging, and washing.  
**NOTTINGHAM GENERAL HOSPITAL.**—Assistant House Surgeon. Salary £100, with board, lodging, and washing.  
**QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, N.W.**—Assistant Resident Medical Officer for four months. Salary at rate of £50 per annum, with board, residence, and washing.  
**ROYAL DEVON AND EXETER HOSPITAL, Exeter.**—Senior Assistant House Surgeon for six months. Salary at rate of £30 per annum, with board, lodging, and washing.  
**ROYAL HOSPITAL FOR INCURABLES, Donnybrook, Dublin.**—Resident Medical Officer, unmarried. Salary £150, with board and apartments.  
**ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.**—Assistant House Surgeon required for six months. Remuneration at rate of £50 per annum, with board and residence.  
**ST. BARTHOLOMEW'S HOSPITAL.**—Surgeon.  
**ST. THOMAS'S HOSPITAL.**—Resident Assistant Physician.  
**SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.**—House Surgeon. Salary £100, with board and residence.  
**STATE CRIMINAL LUNATIC ASYLUM, Broadmoor, Crowthorne, Berks.**—Junior Assistant Medical Officer, single. Salary £175, rising to £200 per annum, with furnished quarters, coal, gas, and attendance.  
**STROUD GENERAL HOSPITAL.**—House Surgeon. Salary £80 per annum, with board, lodging, and washing.  
**SUNDERLAND INFIRMARY.**—House Surgeon. Salary £100, increasing, with board and residence.  
**WESTMINSTER GENERAL DISPENSARY.**—Honorary Surgeon.  
**WESTMINSTER HOSPITAL, opposite Westminster Abbey.**—Aural Surgeon.  
**WESTMORLAND CONSUMPTION SANATORIUM.**—Resident Medical Officer, single. Salary £150, all found.  
**WHITECHAPEL UNION INFIRMARY, Vallance-road, N.E.**—First Assistant Resident Medical Officer. Salary £130 per annum, rising to £150, with rations, apartments, coal, gas, and washing.

## Births, Marriages, and Deaths.

### BIRTHS.

**ROE.**—On Dec. 11th, at 121, Old-street, E.C., the wife of William Francis Roe, L.R.C.P.I., L.R.C.S.I., and L.M., of a daughter.  
**SUTHERLAND.**—At 32, George-square, Edinburgh, on the 17th inst., the wife of L. R. Sutherland, M.B., Professor of Pathology, University of St. Andrews, a daughter.  
**THOMSON.**—On Dec. 15th, at Kirkston, Spa-road, Radipole, Weymouth, the wife of David Thomson, L.R.C.P. Edin., L.R.C.S. Edin., L.F.P.S. Glasg., of a son.

### MARRIAGES.

**ATKEY—MENZIES.**—On the 14th inst., at Holy Trinity, Ryde, by the Rev. W. M. Cameron, vicar, Percy J. Atkey, M.R.C.S., L.R.C.P., D.P.H. Camb., of Southampton, eldest son of C. J. Atkey, Esq., Exmouth (late Streatham), to Barbara, only daughter of the late Captain William Menzies, R.N., and Mrs. Menzies, Ryde.  
**BATTY—ROY.**—On the 17th inst., at S. Peter's, Southborough, James Henly Batty of the Gold Coast and London, to Violet, widow of the late Professor Roy, F.R.S., and daughter of the late Sir George B. Paget, K.C.B., F.R.S., of Cambridge.  
**BOWEN-JONES—EVANS.**—On Dec. 12th, at Saint Catherine's Church, Neath, South Wales, Lloyd Bowen-Jones, M.R.C.S., L.R.C.P. Lond., D.P.H., to Clara, daughter of the late Edward Evans, Esq.  
**FOSTER—DALLAS.**—On Dec. 12th, at Christ Church, Brockham, by the Rev. P. G. Ward, M.A., vicar of Braughing, Herts, M. Bernard Foster, M.R.C.S. Eng., L.R.C.P., D.P.H. Lond., of Puckeridge, Herts, younger son of Michael E. Foster, of Brockham, Surrey, to Gertrude Mary, elder daughter of Seymour Dallas, J.P., of Kimberley, S. Africa.  
**STAHLKNECHT—GARDNER.**—On Dec. 12th, at the parish church, West Kirby, Cheshire, Bernard Stahlknecht, M.B., Ch.B. Vict., to Ethel Cleland, only daughter of R. B. Gardner, of West Kirby.  
**TAUNTON—SMITH.**—On Dec. 12th, at St. Peter's Church, Bengeworth, John Godfrey Cresswell Taunton, M.R.C.S., L.R.C.P. Lond., to Edna Harriet, eldest daughter of Mr. and Mrs. Edwin Smith.

### DEATHS.

**SPENCE.**—At Burntisland, on the 11th inst., Annabella Bain, wife of Robert Spence, M.B., C.M.  
**WILLIAMS.**—On Dec. 14th, at Cheap-street, Sherborne, Dorset, Mary, widow of the late W. H. Williams, M.D., aged 79.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## Notes, Short Comments, and Answers to Correspondents.

### MEDICAL AID SOCIETIES AND THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS.—We will not combine ourselves—why? Because there are many in the profession who would not be happy if they had not the idea in their heads that they were taking someone else's patients or holding some miserable club which someone else wanted. May the Medical Defence Union grow so strong that it may be able to swamp out all medical men who degrade a noble profession by pandering to the public for their own (as they think) gain.

I am, Sirs, yours faithfully,

Dec. 16th, 1901.

GENERAL PRACTITIONER.

To the Editors of THE LANCET.

SIRS.—Certainly, we English are droll. A short time since our hospital out-patient department was the bogey, now it is medical aid societies, and for the time being nothing can be said too bad about them. We have a society formed to put them down; the said society lays its grievances before the General Medical Council; which in turn notifies by circular that "the Council strongly disapproves of medical practitioners associating themselves with medical aid associations." Next the Council convicts an unlucky wight for committing the offence and postpones action for six months. Why? Because the Council knows full well that it can do nothing. Can they remove a man from the Register for "infamous conduct in a professional respect" in taking low fees? If so, the millennium is surely close at hand. Would not an action lie against the Council if it did so? and would not an appeal to the Privy Council soon declare that removal for such a cause was *ultra vires*? The fact is that the General Medical Council knows no more about the doings of general practitioners than—nor indeed so much as—a "jury of matrons." It is composed of nominees of the Colleges and has no interest in general practitioners who form at least three-fourths of the men on the Register, and therefore it is fortunate that it really has no power over them. The Council was appointed to regulate the examinations for qualifications and to register those who were qualified; and if it be necessary, as I hold it is, that the relations of medical practitioners with each other and the public should be regulated this must be done by a house of representatives. To have the General Medical Council constituting itself a trade union when "the trade" is not represented is absurd on the face of it. I am aware that medical aid associations have injured and tyrannised over medical men in some districts, but this is by no means general. In my own locality they have been useful. No attempt has been made to enrol other than working-class members. One cannot, and one would not, wish to refuse attendance on the poor, but they cannot pay long bills and they do not pay one-fifth of what is sent in to them, and what they do pay is reduced by collector's commission—which simply represents the percentage retained by the medical aid societies—and I always look upon it that every £50 received from a medical aid society as so much to the good and that it relieves me of at least £250 of bad debts. Any business-like set of practitioners could frame regulations which would stop the canvassing of other men's patients and the admission of those whose income places them above the assistance of such associations, or the placing of paid servants of a society in a town to compete with the resident practitioners. But if the Council is asked to excommunicate all those who take low fees what shall we ask them to do with those experts and specialists who in hospitals provided by the benevolence of the charitable attend *gratuitously* both in- and out-patients, 75 per cent. of whom are well able to pay for medical attendance?

I am, Sirs, yours faithfully,

Dec. 18th, 1901.

ANTI-HUMBUG.

### LOOKING BACK.

To the Editors of THE LANCET.

SIRS.—In your interesting, amusing, and, I may add instructive, quotation from THE LANCET of Nov. 30th, 1823 (I say instructive because it affords a comparison between the tendency of thought of the present school and that of a period more closely allied to mediæval times), I may be pardoned if I remark that I do not think the views of Dr. Pearson run current with the present age without a grain of salt. The nearest resemblance, as I conceive, to this remarkable Biblical narrative as a natural process consists in pike-fishing, a pastime which as a youth I was an ardent lover of, and it so happened that what is known as "live-bait fishing" was my favourite branch of the art. As every fisherman knows, when the pike are not ferocious, or, to use the sporting term, "not on the feed," the float may disappear and reappear after a short interval, the live bait having been disgorged, but still living, thus enabling one to throw out the same bait without rebaiting. This is a very different situation from Jonah's, who was disgorged after an incarceration of three days; but it occurs to me as the nearest resemblance. Now, according to Dr. Pearson's hypothesis,

the narrative of Jonah reported no miracle at all, but solely natural phenomena; indeed, according to his account, to put it plainly, Jonah seems to have suffered, after three days' immersion, little or no inconvenience. However, taking a more scientific view of this case, Dr Pearson appears to have established the fact—if a fact—early "that the stomach had no power over substances imbued with vitality."

With regard to what Dr. Pearson terms the "minor point"—that is to say, how Jonah procured his sustenance—this can easily be disposed of apart from the miraculous, because the fasting experiments of modern times clearly eclipse Jonah's record for prolonged starvation; but with regard to the "respiratory process" this appears to me to be more difficult and enigmatical to account for according to natural phenomena. A case was reported in the daily papers some time ago of a whale (and let us assume the fish to have been a whale) at an aquarium which was unfortunately drowned through the intrusion of an insect rendering the valve of the ear inoperative, and it occurred to me when I read thereof how long, roughly speaking, a whale could remain under water without rising in order to recharge its breathing apparatus. I believe about four minutes is specified as the limit for man to sustain complete submersion, still retaining life—that is to say, amenable to resuscitation. How long could the whale thus remain? It might be possible for the whale to compensate Jonah in supplying air for changed atmospheric conditions, these points being beyond me, although I venture to guess that Jonah had a miraculous escape from death by drowning or suffocation.

With regard to Dr. Pearson as a logician he appears to me to have outwitted himself, because, supposing he could have explained all the remarkable narratives in Scripture by natural causes, he clearly undermines Scripture, because the Gospels insist upon the miraculous. What he would gain in one direction he would lose in another. The only question remains whether his advocacy was a hindrance rather than an aid to Christianity.

Peckham, S.E., Dec. 14th, 1901.

CLEMENT H. SERP.

#### FEES FOR INSURANCE EXAMINATIONS.

To the Editors of THE LANCET.

SIRS,—Kindly favour me with space for a few lines in reply to the letter that appeared in your last issue. It contains at least three grave misstatements: (1) The examination required is not "unusually rigorous"; (2) the report does not consist of "three sides of foolscap"; (3) the medical questions are *ten* in number, not "60," at stated by your correspondent. The fee for examinations has been fixed by our medical advisers at 10s. 6d., and for the report in question this has hitherto been regarded as a reasonable fee. Apart from this company, the societies providing sickness benefit are chiefly friendly societies, and I understand that candidates for admission to these societies are frequently examined for considerably less than even 10s. 6d., and I do not remember to have heard any demand for a guinea fee, which, of course, would be impossible.—I am, Sirs, yours faithfully,

HENRY BROWN, Manager.

The Century Insurance Company, Limited, Edinburgh,  
Dec. 16th, 1901.

#### FRIENDLY SOCIETIES AND THEIR MEDICAL AID INSTITUTIONS.

To the Editors of THE LANCET.

SIRS,—My letter on the above subject was simply to demonstrate the illegal position of these institutions and the grave abuses which are inherent to their constitution. Your correspondent, "C. W.," complains of my language and reads into my letter the word "insolent" which I did not use. If I wished to introduce a personal element into this discussion I could not do so, for "C. W." is to me only two alphabetical signs, and I have no such desire. I attack a system, not a person; and having fought that system now for 20 years I shall not try to conciliate it by smooth words. If the committee of a hospital were to employ their house surgeon to attend them as charity patients we should have a case approaching that supplied by medical aid societies. The pence of the poor pay for the cheap doctoring of the middle class—the publican, the tradesman, the schoolmaster. The whole thing on the part of these people, who need no concession from the profession, is a piece of Pecksniffian philanthropy. "C. W." compares medical aid associations with insurance companies. The latter canvass; they do not. I admit there is no direct canvass; it is not needed. The friendly societies are so fully organised that by simply including wives and children they have at once a large enough number of members to secure the services of a medical attendant. They start the practice when they first advertise, they carry it on by the aid of their professional—or unprofessional—nominee, who is solely and simply their servant and is usually paid at the rate of 2d. to 3d. a consultation, including visits. His name upon the door-plate covers this cooperative society, which is behind him, engages him or dismisses him. "C. W." quotes Sir W. Foster and Dr. Glover. With Sir W. Foster I had some years ago a correspondence on this subject, and I found his attitude weak. He deplored the lack of union in our ranks which made the matter almost hopeless. Dr. Glover's attitude I do not know, but Sir Dyce Duckworth spoke out strongly enough and ultimately he will voice our will, for he told us that the General Medical Council did not raise the standard of medical education in order that this sort of thing should be supported. There is only one practicable solution of this problem. Recognising the needs of the poor we treat a certain section of the public on nominal terms. We, then, not the philanthropic layman who wishes to unite with the poor in this matter, must be the judges

of who shall have medical attendance in this way. There is the crux. The clubs say, "We shall dictate the terms and scope of your club-work." The answer is easy enough, "You shall not, we will make our own arrangements." That has been, and I hope will always be, my attitude. I have not seen the liberal support of hospitals which "C. W." notes. I believe in Birmingham and some other towns large sums are contributed in this way, and I fear the provident element is invading to some extent our medical charities. The outcome of this feeling is shown in the late cooperative attempt in that city. If "C. W." would care to see them, I should be glad to send him privately instances of the weak points and abuses of the institutions he champions.

I am, Sirs, yours faithfully,

Loughborough, Dec. 16th, 1901.

J. B. PIKE.

#### THE FREQUENCY OF TRICHINOSIS IN THE UNITED STATES.

GERMANY has always been regarded as the only country in which trichinosis is especially rife, and this is of course due to the habit of a large number of its people of eating pork in an uncooked state. The United States is the land of the hog, but despite this fact the belief has been current that trichinosis is a disease comparatively rare among its inhabitants. A systematic examination of pork made for commercial reasons in the United States has shown the frequency of trichinosis in hogs to be about 2 per cent. Dr. Herbert A. Williams, professor of pathology, medical department, University of Buffalo, was struck by the apparent lack of any such systematic researches upon the frequency of trichinosis in human subjects, either in America or in Europe, and for the space of several years he has been closely investigating the matter, the results of which investigations he has published in the *Boston Journal of Medical Research*. Dr. Williams began his studies in 1894, and from that date up to this year 505 cadavers have been examined, trichinae being found present in 27 or 5.34 per cent. Of these the United States white population contributed 2.89 per cent.; United States coloured, 7.14; British and Irish, 8.06; Canadian, 16.6; German, 12.24; and Italian, 16.66 per cent. Dr. Williams summarises the result of his investigations as follows: 1. Samples of muscles secured at 505 unselected necropsies on adult human subjects were examined microscopically for trichinae. In 27 cases, or 5.34 per cent., trichinae were present. 2. All of the subjects died from other diseases than trichinosis. The infection with trichinae must in every case have occurred a considerable time previously. 3. The infections were of various degrees of severity, being sometimes very extensive and sometimes so slight that only one or two worms were detected. 4. The birthplaces of the subjects included the most important countries of North America and Europe. The number of cases was not large enough to allow accurate conclusions to be formed as to the influence of nationality upon the frequency of the disease. The fact that a large proportion of cases occurred in persons who were born and had lived in the United States is important. 5. An unusually high percentage of cases occurred among persons who had been insane. 6. Examinations of sections from the above cases for eosinophilic cells failed to show such cells about or near the encapsulated trichinae. 7. Mast cells do not collect in or about the capsules in cases of old trichinosis. 8. Plasma cells occasionally appear in or about the capsules. 9. Newly-formed elastic fibres sometimes appear about the capsules. 10. As described by Leuckart and Langerhans the capsules may be invaded by new cells, the worms disintegrate, and thus the capsules become filled with fibrous and adipose tissue. The investigations of Dr. Williams have brought out some extremely interesting and instructive points, the chief of which are these, that trichinosis is much more prevalent than is commonly believed in the United States, and especially is this true as regards the white population. Dr. Williams gives a probable and plausible explanation of this occurrence as being due to the custom of many American farmers of eating uncooked or partially cooked pork. The other point to which attention may be drawn is the prevalence of trichinosis among the insane, which may perhaps be attributed to the careless mode of feeding practised by persons thus afflicted before they are placed under restraint. The outcome of Dr. Williams's researches emphasises the need of careful microscopic examination of pork before it is exported, and the necessity of the meat being thoroughly cooked before it is used as food if the troublesome parasite is to be effectually kept out of the human body.

*Obstetrician* is certainly entitled to a fee if he was unconditionally engaged to attend the case. But if he was engaged only in the event of the absence of the first medical man, and the contingency did not arise (the first medical man being available), we do not think that he can claim a fee. Probably no definite arrangement was come to, the patient's husband believing the condition to be understood and our correspondent believing that there was no condition whatever attached to his engagement. If this is the case, would it not be better that a common friend should be invited to arbitrate? There can be no hard-and-fast professional rule that will provide for the results of a misunderstanding.

*Rostrum*.—A thing may be true and yet not worth saying. We advise our correspondent not to take the course that he proposes. If he think that a private remonstrance would be misunderstood it would be better to get someone else to put the right view before the offender.

*Oakdene*.—The greater part of our correspondent's speculations are

only possible to one devoid of anatomical and physiological knowledge. In one or two points he has guessed right, and these points he will find in every text-book of medicine.

**Fairplay.**—Only a combination among medical men can successfully deal with a medical aid society. Fairplay, we presume, knows the strength of his position and whether it will justify him and his colleague in sticking to their guns.

**Bat.**—In the circumstances narrated by our correspondent we think that 10 or 15 guineas would be a reasonable charge for each operation, taking into consideration the pecuniary position of the father.

**A late Public Vaccinator.**—We are in sympathy with much of our correspondent's letter, but we doubt if it would serve any practical purpose to reprint it.

**Furnace.**—The address is Gravel-lane, Southwark-street, S.E. Our correspondent should consult THE LANCET, Nov. 30th, 1901.

**Anonymous.**—We have forwarded the postal orders to the William Smyth Fund.

**A. G.** has acted in the proper spirit.

**During the week marked copies of the following newspapers have been received:**—*Macclesfield Times, Macclesfield Courier and Herald, Yorkshire Post, Reading Mercury, Mining Journal, Local Government Chronicle, Hertfordshire Mercury, Dorset County Chronicle, City Press, Norfolk Standard, Halifax Evening Courier, Alliance News, Lincoln Echo, Sydney Daily Telegraph, South Wales Press, Perth Journal, Liverpool Courier, Surrey Advertiser, Local Government Journal, Courrier de la Presse (Paris), Le Journal des Débats, Le Progrès Médical, Le Voltaire, La Politique Coloniale (Paris), Herts Observer, Stafford Advertiser, Durham Advertiser, Preston Herald, Hereford Times, Hull News, Liverpool Daily Post, Southern Echo, Dunfermline Journal, Plymouth News, East Anglian Times, Sussex News, Leeds Mercury, Worcester Chronicle, Walsall Observer, Swansea Herald, Dundalk Examiner, Birmingham News, Blyth News, Auto-motor Journal, Eastbourne Chronicle, &c.*

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 19th, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radiation in Vacuo.	Maximum Temp. in Shade.	Min Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 a.m.
Dec. 13	29.65	E.	0.73	52	45	40	44	45	Raining
" 14	29.25	N.E.	0.21	49	44	42	41	43	Cloudy
" 15	29.70	N.	...	53	38	35	32	35	Fine
" 16	29.54	S.E.	...	49	41	35	35	37	Overcast
" 17	29.81	W.	...	47	43	31	30	32	Foggy
" 18	29.32	W.	0.07	57	43	32	34	35	Cloudy
" 19	29.39	W.	...	46	38	32	32	33	Foggy

## Medical Diary for the ensuing Week.

### OPERATIONS.

#### METROPOLITAN HOSPITALS.

**MONDAY (23rd).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynaecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopaedic (2 P.M.), City Orthopaedic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

**TUESDAY (24th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Bar (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**WEDNESDAY (25th).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopaedic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

**THURSDAY (26th).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynaecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**FRIDAY (27th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's

(2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square, (9.30 A.M.), City Orthopaedic (2.30 P.M.).

**SATURDAY (28th).**—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.). At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

## EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

## MANAGER'S NOTICES.

### TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	... £1 12 6	One Year	... £1 14 8
Six Months	... 0 16 3	Six Months	... 0 17 4
Three Months	... 0 8 2	Three Months	... 0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or on any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and Agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

### Communications, Letters, &c., have been received from—

A.—Rev. J. W. Atkinson, Lond.; Messrs. Allen and Hanbury, Lond.; Apollinaris Co., Lond.; Monsieur F. Alcan, Paris.  
 B.—Mr. G. P. Butcher, Plymouth; Messrs. R. Boyle and Son, Lond.; Birmingham General Hospital (Jaffray Branch); Mr. H. Bhuttar-chargue, Cawnpore, India; Mr. H. Bigg, Lond.; Mr. H. E. Boxall, Lond.; Mr. W. H. Brown, Lond.; Dr. E. M. Brockbank, Manchester; Mr. J. P. Bush, Clifton, Bristol; Mr. F. E. Bennett, Margate; T. B. Browne, Ltd., Lond.; Messrs. F. B. Bengier and Co., Manchester; Surgeon R. F. Bate, R.N., Wimbledon; Messrs. Burroughs, Wellcome, and Co., Lond.; Mr. B. J. Bordessa, Harrogate; Mr. S. H. Banks-Price, Lond.  
 C.—Mr. W. F. Clay, Edinburgh; City of London Hospital for Diseases of the Chest, Lond.; Cortland Wagon Co., Lond.; Messrs. Carnrick and Co., Lond.; Messrs. Cadbury Bros., Bourneville; The Cancer Hospital (Free), Lond.; Secretary of; Cantab, Lond.; Chalcot, Liskeard; Mr. H. Cripps, Lond.; Mr. W. H. Clarke, Macclesfield.  
 D.—Messrs. Duncan, Flockhart, and Co., Lond.; Mr. E. Darke, Lond.; Dr. M. L. Dingra, Lond.; Dr. E. W. Diver, Shotley Bridge; Lieutenant-Colonel G. W. P. Dennys, I.M.S., Peshawur; D. J. L.; Dr. G. H. R. Dabbs, Shanklin.  
 E.—Messrs. Evans, Lescher, and Webb, Lond.  
 F.—Mr. W. H. Ferrier, Throckley; Mr. A. T. Ford, Stroud, Gloucestershire.  
 G.—Mr. H. L. Gill, Halifax; Galligan Library, Paris; G. E. D.; General Hospital, Nottingham, Secretary of; Dr. F. S. Gramshaw, Stillington; Sir W. Gowers, Lond.  
 H.—Herr S. Hirzel, Leipzig; Dr. C. W. Hayward, Liverpool; Humanitarian League, Hon. Secretary of; Hendon Grove, Hendon, Medical Superintendent of; Messrs. Hannaford and Hodges, Lond.; Mr. T. Hunt, Wellington College; Mrs. Hogarth, Lond.  
 I.—International Plasmon, Lond.; International Sleeping Car and

European Express Trains Co., Lond.  
 J.—Messrs. W. and A. K. Johnston, Edinburgh; Mr. Walter Jesper, Menston-in-Wharfedale; Dr. W. Denton Johns, Parkstone; Dr. O. Clayton Jones, Ilfracombe; Mr. Arthur Jones, Brighton.  
 K.—Kidderminster Infirmary. Secretary of; Messrs. R. A. Knight and Co., Lond.  
 L.—Mr. W. Bevan Lewis, Wakefield; Mr. L. J. Levi, Lond.; Messrs. Lee and Martin, Birmingham; Mr. K. P. Lahiri, Bera, India; Messrs. Lee and Nightingale, Liverpool.  
 M.—Mr. John McLaren, Lond.; Mr. E. D. Marriott, Nottingham; Messrs. Matthews Bros., Lond.; Dr. W. J. McCauley, Birmingham; Messrs. J. Maythorn and Son, Biggleswade; Medical and General Specialities Co., Lond.; Mrs. Marion E. Mackenzie, Edinburgh; *Midland Counties Herald*, Birmingham; Medical Society of Victoria, Melbourne, Hon. Secretary of; Messrs. C. Mitchell and Co., Lond.; Mr. A. H. Moxon, Great Yarmouth.  
 N.—Dr. R. Niven, Lond.; Norfolk County Asylum, Medical Superintendent of; Mr. J. C. Needes, Lond.; Mr. H. Needes, Lond.; Dr. Leith Napier, Adelaide; National Anti-Vivisection Society, Lond., Secretary of.  
 O.—Dr. W. Overend, Clacton-on-Sea.  
 P.—Mr. F. E. Potter, Lond.; Messrs. Pope and Plante, Lond.; Portable Building Co., Fleetwood; Mr. W. H. Pywell, Lond.; Mr. Y. J. Pentland, Edinburgh; Mr. C. H. Powers, Gosforth; Dr. L. L. Proksch, Krantzop, South Africa; Messrs. Peacock and Hadley, Lond.  
 R.—Messrs. Robertson and Scott, Edinburgh; Ross, Ltd., Lond.; Dr. J. A. Robertson, Majestfontein, Cape Colony; Royal Devon and Exeter Hospital, Exeter; Royal College of Surgeons, Lond.; Mr. R. W. Roberts, Cwm Avon; Mr. B. T. Read, Odham; Mr. E. A. Reynolds-Ball, Lond.; Royal Meteorological Society, Assistant Secretary of; Messrs. Roberts and Co., Lond.; Mr. H. Betham Robinson, Lond.

S.—Dr. T. E. Sandall, Alford; Messrs. Spiers and Pond, Lond.; Messrs. G. Street and Co., Lond.; Mr. R. Sim, Wroxall, Isle of Wight; Martin W. Smith Co., New York, U.S.A.; Dr. C. S. Storrs, Namaqualand, Cape Colony; Sunderland Infirmary, Secretary of; Dr. J. A. da Silveira, Lisbon; Selkirk-Minns Co., Lond.; Scholastic, Clerical, &c., Association, Lond.; Dr. J. F. J. Sykes, Lond.; Dr. W. H. Sloan, Philadelphia; Sanitary Department, Cairo, Director-General of.  
 T.—Dr. J. Thomson, Gartloch; Trained Male and Female Nurses' Institution, Liverpool, Secre-

tary of; Mr. H. Taylor, Lond.; Dr. C. Turner, Butte City, U.S.A.  
 U.—University of London, The Principal of; University College, Lond., Secretary of.  
 V.—Victoria Carriage Works, Lond.; Vinolia Co., Lond.  
 W.—Dr. Tucker Wise, Montreux; Dr. A. McCook Weir, Liverpool; Mr. J. Williams, Bradford; Messrs. J. Wright and Co., Bristol; Wills, Ltd., Lond.; Westbrook House, Alton, Medical Superintendent of; West of England Hydro, Limpley Stoke; Messrs. W. Wood and Co., New York; Westminster General Dispensary, Lond.; Mr. S. Wesley Wilson, Dublin.

### Letters, each with enclosure, are also acknowledged from—

A.—Mr. H. Appleton, Lizard; A. C. J. W.; A. D. L. T.; Agricultural College, Aspatria, Principal of; Dr. J. Anderson, Pitlochry.  
 B.—Dr. R. C. Bennett, Bognor; Mr. A. Boyd, Pollokshields; Mr. J. T. Brickwell, Watford; Dr. L. Bruce, West Cornforth.  
 C.—Mr. J. Cotelingam, Lond.; Mr. G. W. Clark, Aldershot; Rev. W. Cleveland, Selby; Mr. F. E. Cockell, Lond.; Sir William Church, Bart., Lond.; Surgeon A. W. Campbell, R.N., Australian Station.  
 D.—Derby County Asylum, Mickleover, Clerk of; Mr. T. Dixon, Lond.  
 E.—Mr. J. Elliott, Stroud.  
 F.—Messrs. Farwig and Co., Lond.  
 G.—Mr. H. J. Glaisher, Lond.; Mr. J. J. Gray, Brecon; Dr. G.  
 H.—Mr. S. Haigh, Minfordd; Mr. D. Heron, Ballynahinch; Dr. A. Howell, Cardiff; Mr. J. Hartley, Bishop's Stortford; Messrs. J. Haddon and Co., Lond.; Mr. W. Hughes, Lond.; Mr. T. Homer, Great Harwood; Mr. T. Holland, Lond.; H. H. B.  
 J.—Mr. G. M. Jones, Homebush; J. H.; J. W.  
 K.—Dr. W. H. E. Knaggs, Scarborough; Dr. A. C. King-Turner, Fairfield; K. D.; Dr. D. J. Kelly, Inverness.  
 L.—Mr. H. Lund, Manchester; Mr. C. M. Lewis, Henfield; Dr. J. F. Little, Lond.; Lais, Lond.; *La Semaine Médicale*, Paris.  
 M.—Dr. T. H. Morris, Tylorstown; Manchester Medical Agency; Messrs. Macmillan and Co.,

Lond.; M. Blackheath; Dr. E. M. Madden, Bromley, Kent.  
 N.—Northern Medical Association, Glasgow; Nurses' Coöperation, Lond.  
 O.—Mr. F. H. Oliver, Lond.  
 P.—Mr. G. C. Peachey, Bright-walton; Mr. E. A. Piggott, Clare; Dr. D. E. Powell, Cardiff; Mr. C. Pearce, Ashton-under-Lyne; Dr. A. R. Paterson, Seaton Carew; Principality Educational Depot Co., Cardiff.  
 Q.—Mr. A. C. Quinn, Cork.  
 R.—Mr. G. H. Robert, Llangifin; Dr. C. Reinhardt, Pokesdown; Messrs. H. and J. Reading, Lond.; Mr. W. Richardson, Doncaster.  
 S.—Dr. F. W. Smith, Harrogate; Messrs. Street and Co., Lond.; Dr. Sweeny, Lond.; Mr. C. B. Simpson, Budleigh Salterton; Dr. A. Shearer, Newtown; Dr. S.; Dr. R. Spence, Burntisland; Mr. P. J. Spencer, Lond.  
 T.—Mr. D. Thomson, Weymouth; Messrs. C. Taylor and Co., Lond.; Mr. A. Taylor, Ruthin; T. J. F.  
 W.—Mr. A. P. Walters, Newport, Isle of Wight; Mr. L. Wallis, Lond.; Woodstock, &c., Rural and Urban District Council, Clerk of; Miss Williams, Sherborne; Dr. G. M. Wilson, Conway; Mr. A. O. Way, Southampton; W. G. P.; Mr. M. Williams, Carmarthen; Wigmore Nurses' Coöperation, Lond.; Mr. W. Wilkins, Liverpool; W. R. P.; Western General Dispensary; Dr. J. W. White, Glasgow; Dr. F. Parkes Weber, Lond.; W. D. J.  
 X.—X., Croydon.

EVERY FRIDAY.

# THE LANCET.

PRICE SEVENPENCE.

### SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.  
 One Year ... .. £1 12 6  
 Six Months ... .. 0 16 3  
 Three Months ... .. 0 8 2

TO THE COLONIES AND ABROAD.  
 One Year ... .. £1 14 8  
 Six Months ... .. 0 17 4  
 Three Months ... .. 0 8 8

Subscriptions (which may commence at any time) are payable in advance.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an additional advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance. Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed. THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.

### ADVERTISING.

Books and Publications	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.  
 Terms for Position Pages and Serial Insertions on application.

# A Lecture ON HEMIPLEGIA.

*Delivered at the National Hospital for the Paralyzed and Epileptic, Queen-square, on Nov. 29th, 1901,*

By JAMES TAYLOR, M.A., M.D. EDIN.,  
F.R.C.P. LOND.,

PHYSICIAN FOR OUT-PATIENTS TO THE HOSPITAL; PHYSICIAN TO THE NORTH-EASTERN HOSPITAL FOR CHILDREN, AND TO THE ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.

GENTLEMEN,—The subject of my lecture this afternoon is hemiplegia, by which is meant that condition in which power is impaired on the whole of one side of the body. In the common variety of this form of paralysis one arm, one leg, one half of the face and of the tongue, and one half of the trunk are affected on the same side. In another variety one arm, one leg, and one side of the trunk are affected on one side, while the face is affected on the other. The latter is known as "crossed" or "alternate" hemiplegia. There is another form of crossed hemiplegia in which the arm, the leg, and the trunk are affected on one side and the structures innervated by the third cranial nerve on the opposite side; and still another in which the parts supplied by the fifth nerve are affected on one side, causing sensory impairment on the same side of the face, while the motor power of the opposite limbs is affected. There is yet another kind of paralysis to be considered called "double hemiplegia," but this in itself is scarcely a separate variety, only a condition in which paralysis of one side has been succeeded by paralysis of the other, and on account of the affection being a two-sided one certain symptoms—especially the affection of what are known as bilaterally associated muscles—are produced, in many instances causing a close resemblance to bulbar palsy, so that certain cases of double hemiplegia are also spoken of as cases of "pseudo-bulbar paralysis." In this lecture I shall only just refer to the condition known as "functional" or hysterical hemiplegia—a condition in which, without any, at all events discoverable, lesion, the symptoms of hemiplegia due to organic disease are very closely simulated. I have thought it best, in order to obtain as comprehensive a view as possible of our subject, to divide the lecture into two main parts and to consider (1) the character of the paralysis, the relative weakness or disability produced in different parts of the body depending upon the position of the lesion in the brain; and (2) the nature of the lesion producing the paralysis as determined by the clinical history of the case. In conclusion, I shall show you several cases which will illustrate at least some of the points to which I shall refer.

As regards the character of the paralysis, in the ordinary form of hemiplegia there is weakness of one side of the face and trunk and of one arm and of one leg. It is not infrequently said that the paralysis of the face is of the lower part only, but the whole of the one side of the face is affected, although the weakness of the lower part is more obvious; in some cases of old hemiplegia it is hard to say that there is any facial paralysis. The weakness of the trunk on one side also is not as a rule very marked, although it is distinct enough, and the reason for this I shall refer to presently. In reference to the limbs, the arm is in the great majority of cases more paralysed than the leg. Why, then, with a lesion of one side of the brain causing paralysis of the opposite side of the body should the parts be affected in this way—namely, the face and trunk less than the limbs, and of the limbs the leg less severely than the arm? The explanation of this peculiarity is to be found in the hypothesis formulated in 1866 by Sir William Broadbent—a hypothesis which throws much light on obscure problems of cerebral physiology and pathology, and one to which clinical experience gives almost daily stronger support. This hypothesis is that bilaterally associated movements are represented on both sides of the brain, and the greater the strength of this bilateral association the more nearly equal is the representation on the two sides of the brain. Thus we know that the two lower limbs are much more closely associated in their movements than are the two upper. We

No. 4087.

very frequently use one arm quite independently of the other. A movement of one leg without some movement of the other is comparatively uncommon, and in the habitual use of the lower limbs for purposes of locomotion the association of the two is a very close one. The same applies even more strongly to the trunk movements. It is apparent that it is impossible for us to move one side of the abdomen or the chest without also moving the other. And so also with regard to the face. Facial movements in expression, &c., are nearly always bilateral. With regard to the forehead especially they are inevitably so; with regard to the eyes less so, although some people find it impossible to wink with one eye; and with regard to the lower part of the face—the part about the mouth—the association is still less close, although still much closer than that between the two arms or even between the two legs. Given, then, a lesion of one side of the brain causing paralysis of the opposite side of the body—the face, the trunk, the arm, and the leg—and situated at such a point (if such a point can be imagined) as to affect the face, the arm, the leg, and the trunk areas or fibres equally, we should expect to have the arm most affected, the leg less affected, the face still less, especially in its upper part, and the trunk least of all; and this, as I have already told you, is what actually happens in the ordinary form of hemiplegia. And I may just mention in passing that this hypothesis explains also the phenomena we meet with in double hemiplegia or pseudo-bulbar paralysis to which I have already referred. The symptoms by which this is allied to bulbar palsy are in the fact that swallowing and articulation are affected. The movements subserving those actions are strong in their bilateral association and consequently in their bilateral representation in the brain, so that a lesion of one side of the brain if it affects them does so only temporarily. But if, in addition to the weakness caused by a unilateral lesion, we have the weakness produced by a second lesion on the opposite side, it will at once be understood that considerable interference with these movements is not only likely but almost inevitable. And such is the case, and as a consequence we have deglutition and articulation so interfered with—to mention the two most prominent symptoms—as to give rise to a condition closely simulating true bulbar paralysis.

Let us now consider for a moment the position in which a lesion will be situated in the brain to cause such a condition as I have briefly sketched. Beginning with the cortex, we may have the lesion situated there, causing so great a loss of power on the opposite side of the body as we have alluded to and you will easily understand that the lesion would have to be one of very considerable extent. As the fibres of the motor tract proceed downwards and the area which they occupy becomes smaller and smaller they become more and more closely aggregated. There may be a lesion occurring at any part of their course. There may be one under the cortex, necessarily also a large one, or where the fibres are massed together in the posterior part of what is known as the internal capsule, a tract of fibres lying between the lenticular nucleus and the caudate nucleus and optic thalamus, and this is by far the most common situation. Or we may have the lesion in the crus cerebri or in the pons, or even lower down in the medulla, although in the latter case, if it is low enough—i.e., below the trunk and nucleus of the facial nerve—the face will escape altogether. But I have not seen a lesion so situated. In any of these positions a small lesion may be sufficient to cause extensive paralysis. In determining the position of a lesion it is necessary to remember that just as the centres for the different parts occupy a definite position in the cortex so the fibres have a similar definiteness at least as low as the crus. Thus in the internal capsule the face fibres are in front of the arm fibres, and those again in front of the leg fibres. And it may incidentally be mentioned that behind the leg fibres run the sensory fibres, and behind these again are the visual fibres subserving the two corresponding halves of the retina—i.e., the field of vision of the opposite side, so that a patient with a lesion in this position on the left side has right hemiplegia and cannot see to his right side—a condition known as "right hemianopia." Similarly in the crus the face fibres are internal to the arm fibres, whilst the leg fibres are external to those for the arm. In the pons the same division cannot be distinguished, for the fibres are now collected into several bundles without any, at all events discovered, topographical relation to function. You will also see that it is possible for a lesion to affect not the whole of the opposite side of the body but only a part, and

C C

then it will give rise to what is known as "monoplegia"—a small lesion in the leg area of the cortex, e.g., may cause only weakness of the opposite leg. It will scarcely cause complete paralysis by reason of the bilateral representation already referred to. A limited lesion in the arm area may, however, cause practically complete paralysis of the opposite arm alone. From the closer aggregation of the fibres lower down the lesion to cause a monoplegia would have to be an exceedingly small one, and as a matter of fact monoplegia from any lesion lower than the cortex, or just underneath it, is very rare for this reason.

We may have, then, an ordinary case of hemiplegia—we shall say "left hemiplegia" for reasons which will be obvious further on. Such a condition as that described may be due to a lesion in any of the places mentioned and without further symptoms it is impossible to say where. Sometimes, however, we find that the leg is more affected than the arm, that, for example, movement of the foot is completely absent while the hand can be moved. In such a case the face is as a rule slightly if at all visibly affected and the lesion will of course be one the focus of which is in the leg area of the cortex or among the leg fibres of the internal capsule or the crus. It is, indeed, a condition, as it were, midway between monoplegia and ordinary hemiplegia. In many cases, also, in which the leg is more affected than the arm there is anaesthesia of the paralysed side present and then the lesion is situated in all probability at the hinder part of the posterior two-thirds of the internal capsule. As we have already mentioned, the leg fibres are the most posterior of the motor fibres in the capsule and lying close to them are the sensory fibres. If, in addition to the anaesthesia, there is also hemianopia (loss of the corresponding half of the field of each eye) the probability of the lesion being of the hinder end of the capsule becomes a certainty, and conversely, where, in a case of hemiplegia you find hemianopia and hemianæsthesia, the leg, as a rule, is more affected than the arm.

I have hitherto purposely spoken of left hemiplegia, as there is frequently associated with paralysis of the right side the condition known as aphasia, in which the patient is unable to speak or perhaps even to understand what is said to him. According to current doctrines permanent aphasia is always due to a cortical lesion or to a lesion lying immediately under the cortex, and it is said that any lesion situated lower is not capable of causing at least permanent aphasia. The reason for this is said to be that speech processes can be conducted across through the corpus callosum and reflected down from the opposite hemisphere.

It is the rule with right hemiplegia to have some degree of aphasia. If there is none, then either the patient is left-handed or the lesion is situated at some distance from the speech centre and in such a way as not to interfere with the conduction of speech processes. Thus a lesion of the internal capsule may cause right hemiplegia without aphasia and even a cortical lesion may do so if the speech centre is not injured. If, for example, you have the focus of a unilateral cerebral lesion near the middle line it is quite likely that the third frontal convolution may escape, and Dr. J. Hughlings Jackson has for years been in the habit of pointing out that in cases of right hemiplegia without aphasia or with slight and transient aphasia the leg as a rule is more affected than the arm. I am able to show you to-day two cases illustrating this.

But besides these ordinary forms in which the affection of one-half of the body is all on the same side, a condition of crossed hemiplegia is met with, as I have already stated. The most common form is that in which the face on one side is affected and the limbs on the other. In such a case the lesion is situated in the lower part of the pons affecting the pyramidal tract before it has decussated and involving the fibres of the facial nerve as they pass from the nucleus to emerge as the facial nerve. The affection of the face in such a case is, as a rule, more severe than in ordinary hemiplegia and partakes much more of the characters of the paralysis known as "peripheral facial palsy" or "Bell's paralysis." In other words, the upper part of the face is much more affected than is usual in cerebral paralysis. The sixth nucleus also is often affected in such a case, and this will not be surprising when you think of the relation of such a lesion in the position I have described to this nerve and the close connexion of the nuclei of the sixth and seventh nerves. Similarly we may have hemiplegia in a patient associated with anaesthesia of the face, and in such a case also the lesion must be pontine, the anaesthesia being due

to affection of the fifth nerve or its nucleus. Sometimes in a case of hemiplegia, in other respects of the ordinary type—namely, affection of the face, the arm, the leg, and the trunk on one side—we have paralysis of the third nerve of the opposite side. Such a condition, if it is the result of only one lesion, can result from a lesion in only one situation—namely, in the crus cerebri of the side on which the third nerve is paralysed. It is a very uncommon form of hemiplegia.

We shall now proceed to the second part of the subject and consider how to determine the nature of the lesion causing hemiplegia, whether hæmorrhage, thrombosis, embolism, or tumour. The two factors to be taken account of in such consideration are the mode of onset of the paralysis and what may be called the clinical pathology of the individual, meaning by this the state of his arteries, pulse, heart, kidneys, and organs generally.

1. As regards hæmorrhage the onset of the paralysis is, as a rule, sudden and may take place during exertion. Perhaps one of the commonest forms of exertion with which cerebral hæmorrhage is associated is straining at stool. There is usually loss of consciousness, and if the hæmorrhage is a large one there may be profound coma with stertorous breathing or the irregular respiration known as Cheyne-Stokes respiration. If the hæmorrhage is superficial, that is cortical, the onset is usually signalled by a convulsion starting in the limbs opposite to the site of hæmorrhage and usually becoming universal. There may be a series of such convulsions the result of the cortical irritation. The pulse may be full and tense and the artery hard and obviously atheromatous. Healthy vessels do not readily rupture, whereas atheromatous ones do, and, besides, atheroma of arteries is not uncommonly associated with the presence on them of small aneurysmal dilatations. The heart also may be hypertrophied and there may be contracted kidneys. It does not necessarily follow that there will be albumin in the specimen of urine you may examine, but this does not exclude kidney change, and it is well to examine for the presence of vascular changes usually associated with kidney disease besides those already mentioned. The most important of these are the changes in the retina and its vessels, the condition known as "albuminuric retinitis," and I have known this frequently present in cases in which repeated examination has failed to reveal the presence of albuminuria.

2. The presence of these retinal changes is not absolutely conclusive that the condition giving rise to the symptoms is cerebral hæmorrhage, for it must be remembered that the condition of vessels which makes them liable to rupture is also that which tends to give rise to clotting in them and so induce the second condition which we have to consider as a cause of hemiplegia—viz., thrombosis. When this condition is present in the old the onset as a rule occurs during rest, often the rest which follows undue exertion. The commonest time of onset is during the night and the paralysis may only be realised when the patient gets up, or tries to get up, in the morning. Loss of consciousness may or may not take place—more frequently it does not; the pulse is slow and the condition generally not apparently one of such urgency and seriousness as in hæmorrhage. As will have been evident from what has already been said, visceral changes may be present similar to those mentioned as associated with hæmorrhage, for, as already stated, the atheromatous condition of the arteries renders them not only liable to rupture but also to become blocked. One thing is worth remembering, and that is that when the hemiplegia is on the right side and aphasia is present the cause is more likely to be thrombosis than hæmorrhage. The reason of this, from what has been said about the situation of the lesion in aphasia, will be apparent.

What I have said so far about thrombosis refers particularly to that condition as occurring in the aged. But hemiplegia is not confined to the aged, and in young adults or people generally under the age of 40 years in whom no heart disease or kidney disease is present hemiplegia is almost invariably due to thrombosis occurring in diseased vessels. The nature of such disease is the thickening which results from syphilis, and this is no doubt the usual condition giving rise to hemiplegia in those who have not reached the age at which senile atheroma may occur or in whom there is no cardiac condition likely to give rise to embolism or diseased vessels with kidney affection.

3. This leads us to the consideration of the third condition causing hemiplegia—viz., embolism. In embolic hemiplegia the onset is sudden, consciousness may or may not be lost,

and if it affects the right side aphasia—transitory it may be—is usually present. The sudden onset and the presence of obvious heart disease, especially of mitral stenosis, are usually sufficient to indicate the nature of the lesion, although even then the rule is not absolute, and I have known thrombosis occurring in an artery affected with endarteritis due to syphilis cause hemiplegia in a patient with mitral stenosis.

4. Another cause of hemiplegia is tumour and in this the clinical history is of immense importance. If there is or has been headache, sickness, and optic neuritis with unilateral weakness, of course the cause is almost certainly tumour, but you may justifiably diagnose tumour when not one of those so-called classical symptoms is present, if there is hemiplegia of slow onset—i.e., affecting first one limb slightly and gradually increasing its effect both in degree and in extent, the weakness occupying months or even longer before it can be definitely described as hemiplegia. If the tumour is situated beneath the cortex or in the vicinity of the central ganglia you may have only the slow onset to guide you; if it is in the cortex you may have in addition fits of local commencement and the hemiplegia may at first be only a temporary one occurring after the fits.

I need scarcely consider the question of abscess which may also cause hemiplegia. If abscess is present you will probably have a history of traumatism, or ear disease, or empyema, or suppuration in some other part. I have known, however, cases of abscess in which none of those were present and in which the clinical history and condition did not give rise to any suspicion that the cause was other than an ordinary vascular one. Yet in the great majority of cases of abscess you will have one of the three conditions I have mentioned—ear disease, suppuration elsewhere, or a history of injury.

I would just mention the hemiplegia which occurs in childhood. This may be of two kinds. 1. You may have a birth palsy hemiplegic in type, although in this form of paralysis the symptoms are usually bilateral. As the onset occurs during birth, usually in first-born children, and in cases in which the labour is long and difficult, often instrumental, and as the cause of it is meningeal hæmorrhage, you can understand that the affection is usually bilateral in its symptoms, the hæmorrhage extending on each side of the vertex. But you can also understand how the symptoms may be hemiplegic if the hæmorrhage is confined to one side of the vertex. 2. The other form of hemiplegia in childhood is the ordinary so-called infantile hemiplegia occurring in the early years of life, commencing usually with a unilateral fit or a series of convulsions. The cause of this is uncertain; according to some it is an inflammation of the grey matter, according to others a thrombosis in arteries, while Sir William Gowers believes that it is determined by a venous thrombosis. The hemiplegia is often severe, there is sometimes present the peculiar mobile spasm known as athetosis, and the patient is often subject to fits starting on the paralysed side. One point also is of interest, and that is that mal-development of the hemiplegic side nearly always results, so that it is smaller in every way than its fellow. I am able to show you an excellent example of this.

The treatment of hemiplegia divides itself into two natural parts—the treatment at the onset and the later treatment undertaken with the view of restoring function as much as possible. The great point in reference to the treatment at the onset is to determine the cause of the paralysis. If it is embolism, absolute rest, light food, and extreme care in avoiding any strain on the heart are the essentials; if it is hæmorrhage, free purgation, light, easily digested food, leeches to the temples if there is pain, and absolute rest are the main things; if it is thrombosis in the old, gentle aperients, together with cardiac stimulants and liquid nourishment, are best; if thrombosis in the young, then mercury and iodide of potassium must be energetically administered. It is unnecessary to go into the subject of the treatment of tumour or abscess. Anti-syphilitic remedies or operation are the only means open for the former, operation for the latter is the only treatment to be considered. Treatment in the later stages is directed to improvement of the condition. Loss of power and rigidity are the two things to be considered. Gentle rubbing is certainly useful in overcoming the rigidity, faradisation applied to the extensors—e.g., of the forearm—may diminish the flexor spasm and will also exercise the affected limbs. Fresh air, gentle exercise, and light, easily-digested food are the other means for securing the best results.

## A Clinical Lecture

ON

### THE EARLY DIAGNOSIS OF PULMONARY CONSUMPTION, WITH ESPECIAL REFERENCE TO THE VALUE OF TUBERCULIN.

*Delivered at the Brompton Hospital for Consumption on Nov. 6th, 1901,*

By ARTHUR LATHAM, M.A., M.B. OXON.,  
M.A. CANTAB., M.R.C.P. LOND.,

ASSISTANT PHYSICIAN TO THE HOSPITAL, AND TO ST. GEORGE'S HOSPITAL.

GENTLEMEN,—I make no apology for discussing with you this afternoon the grounds upon which we are justified in making a positive diagnosis of early pulmonary consumption, more especially as I hope to bring under your notice a method of diagnosis which has been strangely neglected in this country—namely, the use of Koch's *old* tuberculin. The early diagnosis of tuberculosis is a question of supreme importance, perhaps the most important that the physician has to face, as anyone must realise when he grasps the facts that one person out of ten dies in this country from this disease, that a large proportion of those who die from other diseases are afflicted with consumption in one or other of its forms, and that in the early stages we can, owing to our greatly increased knowledge of the pathology and treatment of the disease, almost certainly bring about complete arrest of the tuberculous process, whilst in the later stages our efforts must often be largely palliative. I am not, I think, making too strong a statement when I assert that the larger number of cases of pulmonary tuberculosis, which are undetected in the early stages, end fatally within three or four years from the first onset of the disease. There can, therefore, be no question as to the importance of the disease being detected at the earliest possible stage.

I have here 15 or more patients who are in an early stage of consumption, but before you examine them I will briefly refer to the methods we employ to arrive at a *definite* diagnosis in the early stages of this disease. There are, fortunately, several ways in which we can achieve our object. We are, I think, justified in making a positive diagnosis in the vast majority of cases under the following circumstances.

1. When we find diminished resonance and increased resistance to the finger associated with the presence of *persistent* crepitations or fine râles in those situations in which tuberculosis usually starts in the lungs—namely, the apices of the upper lobes, more especially towards their posterior aspect. For example, the year before last I saw a patient at Sawston with Mr F. Edwards. She was well nourished and there was no family history of tuberculosis or history of exposure to infection; she had enjoyed previous good health, save that she had been troubled for a few months by a dry hacking cough. There was no loss of weight and no rise of temperature. The sputum had been examined on several occasions, but no tubercle bacilli were found. On physical examination I found slightly diminished resonance and increased resistance to the finger, together with feeble respiration and a few crackles at the end of inspiration above the left clavicle and to a less extent in the left supra-spinous fossa. The other portions of the lungs were healthy. I made a positive diagnosis of tuberculosis notwithstanding the absence of tubercle bacilli and the patient regulated her life in accordance with that opinion. She is now practically well, the only signs present being slight dulness and diminished breath sounds at the left apex, together with definite though slight contraction in that position—signs, that is, of a healed tuberculous lesion.

If there is no diminished resonance we cannot make a positive diagnosis, for we meet with cases in which there is no alteration of the percussion note but such physical signs as diminished breath sounds and fine râles, associated perhaps with slight fever. These râles eventually clear up and are probably due to local catarrh of the smaller tubes. Nor, again, can we make so positive a diagnosis in the absence

of tubercle bacilli in the sputum when there is dulness with adventitious sounds in some other situation than the apex of the lung. It is, of course, not so very uncommon to find the first physical evidence of pulmonary tuberculosis either at the bases of the lungs, or in the neighbourhood of the nipples, or in the axillary regions, but in these situations other conditions may occasionally give rise to the same physical signs as early tuberculosis, and we are not justified—at any rate, for some little time—in making as positive a diagnosis as we are when the apices are affected.

2. When the symptoms are suggestive of tuberculosis and tubercle bacilli are present in the sputum, although, on a physical examination, the lungs are apparently sound. Many patients come to a hospital like this who are apparently in good health, but who complain of repeated attacks of what they term “influenza,” or of a great tendency to “catch cold”; or, again, patients come with a history of some previous lung trouble and subsequent wasting; or people with a strong tuberculous history who are themselves anæmic and troubled by a distressing cough. In many of these cases it is impossible to make a definite diagnosis one way or the other from the physical signs present, and consequently I always have the sputum examined for tubercle bacilli. If bacilli are found the diagnosis is certain and the patient must act accordingly, and we may confidently assure him that if he can but carry out the necessary treatment in all its details he will be able to throw off the disease to all intents and purposes. Some few years ago a personal friend of my own, under the care of Dr. H. Menzies, although in apparently good health, was constantly having slight attacks of what appeared to be a feverish cold. There was no family history of tuberculosis, and on examination of the chest there were no physical signs of any disease. The attacks continued and it was thought wise to examine the sputum. Tubercle bacilli were found and the patient was persuaded with some difficulty to give up his work and to devote his attention, for a time, entirely to his health. He is now in a much better condition; his weight has increased one and a half stones, whilst the only physical signs present are those of fibrosis and contraction of the right apex.

3. When hæmoptysis, even to such a small extent as a teaspoonful, occurs in cases where there is no evidence that the bleeding comes from the upper air-passages or is dependent upon some morbid condition of the heart or other disease within the chest. We must be careful not to overlook some trivial cause, such, for example, as Dr. William Murray<sup>1</sup> with a courage too seldom seen in our profession confesses to in the following extract from his book:—“A gentleman, whose name is now a household word throughout the world, called on me in great alarm on account of an attack of blood-spitting. I saw a good deal of blood on his handkerchief, and on examining his chest I heard, or thought I heard, rough breathing and fine crepitation over the left apex. I told him this and treated him accordingly. On going to his shop he ..... looked into his mouth and discovered that the bleeding was from a spongy gum which he had doubtless lacerated with his tooth-brush. I need not say that he lost confidence in me and I lost my patient.” Hæmoptysis in some cases is associated with suspicious or even definite physical signs, with a strong family history of disease, but in many cases it is the first symptom of pulmonary tuberculosis; it often occurs in persons of apparently robust health and is frequently unassociated with the presence of tubercle bacilli in the sputum. I have at present under my care a lady who five years ago spat up on three occasions a teaspoonful of blood. I examined her carefully at the time to see if the blood had any possible source save the lungs, but found none. There was no family history of tuberculosis and the patient had had no previous illness. The only physical sign which I could detect was a slight persistent pleuritic creak in the left supra-spinous fossa. I endeavoured to convince this patient of the importance of looking after her health seriously for a somewhat prolonged period of time, but was only able to persuade her to take small doses of cod-liver oil. With this exception she lived her usual life. The physical signs made very slow progress until the end of last year, when she had a smart attack of bronchitis; in consequence of this the tuberculous mischief extended a little, and Sir R. Douglas Powell and myself were then able to convince the patient that she was really ill. She went on our advice to Dr. Walther's sanatorium at Nordrach, where she gained nearly two stones in

weight, whilst the physical signs now present are those of chronic fibroid disease. Her condition is satisfactory, but I am certain that if she had been willing to undergo treatment at an earlier stage she would have been, to all intents and purposes, an absolutely healthy person to-day. In another case which I saw with Mr. R. C. Gayer in Kensington last year there was profuse hæmoptysis associated with a strong family history of tuberculosis. There were no physical signs save a few crepitations beneath the right clavicle, which I thought were possibly due to the recent hæmoptysis, but which persisted for some considerable time and were no doubt due to the disease. There was no other cause for the bleeding, so Mr. Gayer and I took the responsibility of advising this patient to spend the winter at St. Moritz, although this involved an entire change of his plans and, indeed, of his life. At St. Moritz he gained over a stone in weight, and when I saw him this summer he looked an entirely new man, whilst the only evidence of disease that we could find was a deficient entry of air with very slight dulness over the right clavicle. In a third case which I saw with Mr. J. S. E. Selby at Waddesdon there was hæmoptysis so profuse that the patient became almost pulseless, but there was no physical sign of disease or family history of tuberculosis, and no bacilli were present in the sputum. There was no other cause for this alarming symptom, whilst the patient was decidedly tuberculous in aspect. Here again I advised that at least a year should be devoted to the patient's health, although such a procedure was highly inconvenient. I have recently heard from Mr. Selby that the great improvement which has followed in this case more than justified our advice.

I have enlarged on the significance of the expectoration of blood because I do not think that medical men are sufficiently ready to accept the responsibility of making a definite diagnosis on this symptom alone. Naturally we must be certain that there is no other cause for the bleeding, but if we find none, then, unless we insist on a rigorous course of treatment at once, our patients lose their best opportunity of getting well and come back later with well-marked signs of consumption.

4. When there are suspicious signs in the lungs, with tuberculous disease elsewhere in the body. For instance, I saw at the end of last year with Mr. Herbert Allingham a young man who had previously had one of his knee-joints excised for tuberculous disease and in whom Mr. Allingham had recently opened an abscess in connexion with the spinal column. When I saw this patient he was complaining of cough and a little pain in the right axilla. On examination I found a few scattered crackles in the right axilla and at the right base. There were no tubercle bacilli in the sputum, but the physical signs persisted. This patient on our advice went out to New Zealand, and I have lately seen a photograph of him showing that his improvement has been great, apart from the facts that he has increased in weight, lost his cough, and is able to go about in comfort.

When we meet with such signs or symptoms as I have mentioned it is imperative for us to treat the patient, on the well-known lines, for pulmonary tuberculosis. Unfortunately, however, we are constantly seeing cases of early consumption in which the symptoms or physical signs do not warrant a positive opinion. For example, we meet with cases in young people of progressive wasting when there is no malignant disease or diabetes to account for this symptom; with cases of general ill-health associated with pain in the chest or occasional attacks of so-called influenza or feverish cold; or patients may come to us suffering from slight cough, anæmia, and possibly feeble digestion; or again we see cases in which there is a history of pneumonia, pleurisy, or some other lung trouble, with subsequent debility and ill-health. In all such cases there may be in addition a strong history of tuberculosis, and yet on examination we may find no physical signs whatever and no tubercle bacilli in the sputum. On the other hand, we may find certain indefinite physical signs. We may find, amongst other things, the dilated venous radicles over the spinous processes to which Dr. W. Overend<sup>2</sup> has recently called attention; definite myotatic irritability, together with an increased pulse-rate; commencing depression or flattening in the region of one or other clavicle or supra-spinous fossa, or diminished freedom of costal movement; slight increase of the vocal and tactile vibration; slight diminution in the clearness and duration of the percussion note or slight increase in the resistance to the fingers; diminution of the

<sup>1</sup> Rough Notes on Remedies, p. 84.

<sup>2</sup> THE LANCET, August 31st, 1901, p. 592.

respiratory murmurs, prolongation and slightly higher pitch of the inspiratory and more especially the expiratory murmur, or jerky movements; or, again, there may be an occasional slight crepitation without any other sign. Our difficulty is increased when we remember that many of these signs occur in healthy individuals under certain conditions, more especially at the apex of the right lung. In such cases, then, we have perhaps general ill-health, a strong family history of tuberculosis, and certain symptoms and physical signs which make us strongly suspicious of consumption; yet we cannot give the dogmatic opinion which may be needed to save the patient's health. Take, for instance, the case of a medical man who consulted me last year. Two years previously he had suffered from pneumonia of the right lung, from which he made a good recovery. There was a fairly strong history of tuberculosis in his family and for a few months before I saw him there was considerable loss of weight, with slight harassing cough and scanty expectoration which on repeated examination was found to be free from tubercle bacilli, whilst on physical examination I found at the right apex, above the clavicle, and especially in the right supraspinous fossa, a diminution of the respiratory murmur which persisted when he coughed. Or, again, take the case of a medical student whom I saw this year. This patient was one of a family several of whom had suffered from one or other form of tuberculosis; he was wasting, very anæmic, and he suffered from slight cough. There was no fever at any time, and no tubercle bacilli were present in the sputum. On examination I found slight flattening above the right clavicle with prolongation of the expiratory murmur, and on two occasions I heard a faint click at the end of inspiration. This patient spent the summer, practically speaking, in the open air. He gained considerably in weight, but he still has signs at the right apex, which in view of his family history and general condition are not free from suspicion. Or take the case of a young man whom I have lately seen with Dr. Rashleigh. Here there was a history of pleurisy five years before, but of subsequent good health. The patient had recently become anæmic and was troubled by a slight cough with scanty expectoration in the morning. There was a certain amount of wasting and the digestion was impaired. Tuberculosis was strongly marked in the family. On examination I found in the right axilla a certain number of crepitations which were probably due to the attack of pleurisy; at the right apex the respiratory murmur was deficient on ordinary respiration, and, on deep respiration, the expiratory murmur was prolonged. The sputum contained no tubercle bacilli, but diplococci pneumoniæ were present in large numbers.

What are we to say in such cases as these if, after repeated examination of the sputum, or even if by means of inoculation, we are unable to demonstrate the presence of tubercle bacilli? If we say that there is no definite evidence of tuberculosis our patients are apt to be careless and to forget that even if they are not suffering from this disease they are extremely likely to contract it. On the other hand, we are not, I think, acting rightly if we assert that tuberculosis is present and order our patients' lives in accordance with this opinion. In many suspicious cases the patients get quite well on simple treatment. For instance, I remember very well the case of a young woman whom Mr. Herbert Allingham, who had seen her for some surgical trouble, advised to consult me three years ago. She was anæmic, was losing weight, and was suffering from cough and slight expectoration, together with impairment of digestion. On examination I found that the cough might be accounted for by the condition of the throat, but that there were distinct bronchophony and impaired note at the right apex, together with marked prolongation of the expiratory murmur. I prescribed a simple remedy in the shape of aloes and iron, and am glad to say that at the present day there are no suspicious signs in the chest, while the patient's condition is very good.

The majority, however, of these cases do not improve in this way, and we are in need of some means of determining their true nature, so that if we find no tuberculosis we can adopt measures which in a few weeks or months will restore the patient to health; whereas if we find definite evidence of tuberculosis we can insist on our patients taking the necessary steps to arrest completely the disease. My experience is—as might be expected—that if a patient cannot get a definite opinion that he has tuberculosis he will not take any great care of himself, but that if we are able to

state positively that tuberculosis has definitely set in, and that the chances of cure are extremely hopeful, then patients will make very great sacrifices. We are, I think, able to do this, and have at our disposal the means of determining the true nature of these suspicious cases by the employment of Koch's old tuberculin as a diagnostic agent, provided that it is used under certain definite conditions and by a skilled observer.

Several other methods have been employed to facilitate the diagnosis of consumption, such as the x rays and the agglutination of tubercle bacilli by means of the patient's serum, but none of these are at all reliable in the early and indefinite stages of the disease, and are not to be compared with tuberculin. This latter agent fell into disrepute very soon after Koch's somewhat premature disclosure, chiefly owing to the fact that Virchow asserted that tuberculin injections, in some cases, tended to generalise the disease. Virchow's statement was upheld by a report of eight physicians of this hospital, which was signed by Dr. C. Theodore Williams and Dr. John Tatham, and there can be no doubt that given in the doses and in the class of case in which it was given in the early days tuberculin was a dangerous weapon. I would point out, however, that the larger number of cases treated when the discovery was first made were cases of advanced disease with secondary infection, in which febrile symptoms were present, and that tuberculin was given in frequently repeated and often large doses. In the class of cases in which I use this remedy there is no fever, no advanced disease, or secondary infection, whilst the amount I use is small, and the injections never exceed three, or at most four, in number. I never use it where there is evidence of much disease. For instance, I do not use it to find out whether an attack of general bronchitis is tuberculous or not, or to make a diagnosis between bronchiectasis and tuberculosis. If the physical signs point to extensive mischief and I am in doubt whether the disease is tuberculous I do not use tuberculin because of the experience of Virchow and my colleagues. Nor do I use it when I am certain of my diagnosis by other means. For example, I admitted a young man who is here to-day a few weeks ago into St. George's Hospital. I had then seen him on several occasions and was suspicious of tuberculosis as he was anæmic and constantly "catching cold." The only physical signs that I found were diminished resonance, slight wasting, and deficient entry of air at the left apex. It was my intention to inject him with tuberculin, but before doing so I again examined his chest—I had not seen him for a couple of months—and found that in addition to the above signs and symptoms there were a few crepitations at the end of inspiration over the left clavicle. These persisted and I was consequently able to make a definite diagnosis without injecting him.

When the disease is so slight that a diagnosis cannot be made on physical signs nor any tubercle bacilli demonstrated in the sputum, then I believe that one, two, or three small injections of Koch's old tuberculin are absolutely free from danger. There is no recorded case where, used in the way in which I use this drug, any bad results whatever have followed the injections, and that is the experience of Koch, of Brierger, and Neufeld,<sup>3</sup> of B. Fränkel,<sup>4</sup> of Dr. Heron,<sup>5</sup> and of myself. Again, Professor Osler<sup>6</sup>—a man of singularly wide experience and level judgment—in taking part in a discussion raised by Dr. Heron at the recent British Congress on Tuberculosis, which was chiefly concerned with the curative value of the newer forms of tuberculin, said that he regarded the old form of tuberculin as a safe and efficient diagnostic agent, and that he used it as a routine practice in the wards at the Johns Hopkins Hospital. I think, then, that we may rest assured that under the conditions which I have laid down—that is, in the absence of definite signs of extensive disease, in the absence of fever, and in small doses—there is no danger whatever in the use of tuberculin as a diagnostic agent in the early stages of consumption.

We now have to consider what is the value of a reaction following the use of tuberculin. If we obtain a reaction can we assert that the case is one of tuberculosis? And again, if we fail to obtain a reaction after three, or possibly four, injections, can we positively exclude tuberculous disease?

<sup>3</sup> Deutsche Medicinische Wochenschrift, February, 1900, p. 93.

<sup>4</sup> Berliner Klinische Wochenschrift, March, 1900, p. 255.

<sup>5</sup> Brit. Med. Jour., July, 1901, p. 213.

<sup>6</sup> Ibid., p. 214.

With regard to the first question Goldschmidt,<sup>7</sup> Babes, and Kalendero<sup>8</sup> have obtained a reaction in cases of leprosy. Netter stated that he obtained the reaction in 27 out of 100 cases where the patients were afflicted with other diseases than tuberculous disease of the lungs. Straus and Teissier<sup>9</sup> have observed a reaction in syphilitic subjects, and so on. With regard to leprosy we might perhaps expect a reaction; in any event it does not complicate the cases which we are concerned with. In the other diseases in which tuberculin is stated to have given a reaction there is not sufficient proof, in the shape of post-mortem or other evidence, to show that the patients in these cases did not also suffer from tuberculosis. Klebs, jun.,<sup>10</sup> states that he obtained a reaction in every case of chlorosis, but this is the experience of no other observer and requires confirmation. Against these statements we have Koch's<sup>11</sup> assurance that, after an experience of some 3000 cases, he considers the tuberculin test to be almost absolute, and we have in addition the evidence gained from post-mortem examinations of cattle slaughtered after a tuberculin reaction has been obtained—evidence which shows us how extremely uncommon it is for tuberculosis not to be present in those cases in which a reaction has been obtained. Do we ever fail to obtain the reaction when tuberculosis is present? Cornet<sup>12</sup> in his book upon this subject refers to a few cases in which tuberculosis was certainly present but which gave no reaction when tuberculin was injected; J. M. Anders<sup>13</sup> of Philadelphia, who is a firm believer in the diagnostic value of tuberculin, has seen cases in which there was no reaction, although post-mortem examination showed the presence of tuberculous lesions; Knopf<sup>14</sup> also considers that tuberculin may fail to show the presence of disease in some instances. This, however, merely means that the negative value of no reaction is not as great as the positive value of a definite reaction. We have no absolute certainty in medicine, and must always remain satisfied when an overwhelming majority of cases give a particular sign or symptom, and in this respect we may compare the tuberculin reaction very favourably with what is known as Widal's reaction.

The following is the method which I employ in utilising the tuberculin test. The old tuberculin of Koch—which is free from tubercle bacilli—is diluted with a 0.5 per cent. carbolic acid solution, so that a 1 per cent. solution of tuberculin is obtained. No more of the dilution should be prepared than is likely to be sufficient for the requirements of a few days, and as soon as the solution becomes at all turbid it should be thrown away. The temperature—preferably of the rectum—is taken every four hours for three days before the injection is made, and if there is any appreciable fever the injection must be put off for a time. The injection, according to the experience of Dr. S. Vere Pearson, late house physician at this hospital, gives rise to less inconvenience when made in the loin than it does if made in the arm or abdomen. The temperature must, of course, be taken after the injection is made every four hours as before.

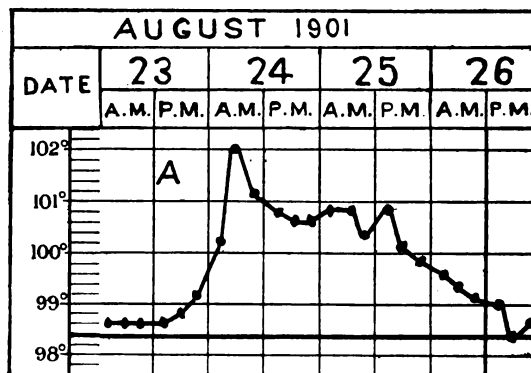
With regard to the amount of tuberculin used, my object is to inject just sufficient to cause a rise of temperature—that is, I try to avoid causing a greater rise than is absolutely necessary. If the patients are what may be described as weaklings, or if the signs are extremely suspicious, I commence with 0.001 cubic centimetre of tuberculin in the case of adults (0.0005 cubic centimetre for children)—that is to say, one milligramme or half a milligramme; this is most safely accomplished by using a syringe of one cubic centimetre capacity and injecting a tenth part of the 1 per cent. solution of tuberculin which it contains. A rise of temperature of 1° F. may be considered to be a positive reaction; it is important to remember that this may, under exceptional circumstances, be delayed for 36 hours. If no reaction follows I wait three days and inject five milligrammes (for adults), though if there has been some oscillation of temperature but no definite reaction after the first injection three milligrammes may be sufficient. If there is still no reaction I again wait three days and then inject one centigramme (for adults); if there is no reaction now tuberculosis can be excluded. In cases

in which the patients are more robust, or in which the symptoms and signs are more indefinite, I use larger injections—five milligrammes for the first, one centigramme for the second, and two centigrammes for the third. Patients must be kept in bed after the injection until the reaction has passed off—that is to say, for about from 24 to 48 hours.

I will pass round the charts of three cases in which injections of tuberculin have been employed and hope to give you an opportunity afterwards of examining the patients themselves. For the notes of these cases I am indebted to Dr. Vere Pearson and Dr. Crompton, who acted as my house physicians when I had charge of Dr. Hector Mackenzie's wards this summer.

CASE 1.—The patient was a man, aged 26 years. He complained of cough, with wasting and weakness for one year. He had an attack of pleurisy three months before admission. The physical signs were as follows. On the right side: in front expiration was a little prolonged and high-pitched, at the apex and in the supra-clavicular fossa an occasional click was heard which disappeared after coughing. On the left side there was diminished resonance in front, and the breath sounds, more especially behind, were prolonged and high-pitched. There were no tubercle bacilli in the sputum. On August 23rd 0.005 cubic centimetre of tuberculin was injected at noon. At 8 o'clock next morning the temperature rose to 102° F., but it gradually fell and reached the normal on the 26th. A positive diagnosis of tuberculosis was then made (see chart, Fig. 1).

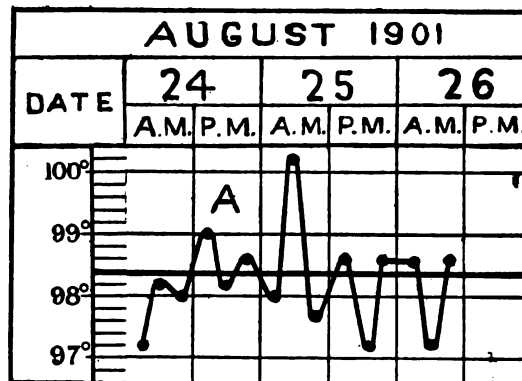
FIG. 1.



A (August 23rd), Injection of 0.005 cubic centimetre of tuberculin.

CASE 2.—The patient was a man, aged 45 years. His health had been indifferent. He had had an attack of pleurisy in 1893. The physical signs were as follows. The resonance to percussion was slightly impaired in

FIG. 2.



A (August 24th), Injection of 0.005 cubic centimetre of tuberculin.

the left infra-clavicular fossa, first and second spaces. The spine of the left scapula was less resonant to direct

<sup>7</sup> Berliner Klinische Wochenschrift, 1891, p. 28.

<sup>8</sup> Deutsche Medicinische Wochenschrift, 1891, p. 115.

<sup>9</sup> Semaine Médicale, 1893, p. 364.

<sup>10</sup> Whittaker, Medical Record, vol. ii., p. 826.

<sup>11</sup> THE LANCET, July 27th, 1901, p. 187.

<sup>12</sup> Tuberculin als Diagnosticum der Tuberculose, Wien, 1899.

<sup>13</sup> Pennsylvania Medical Journal, December, 1899.

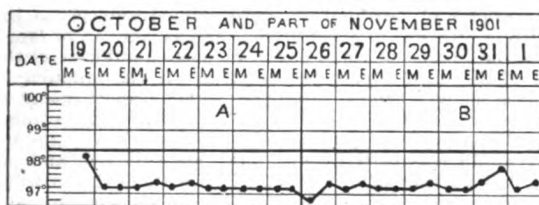
<sup>14</sup> Nineteenth Century Practice of Medicine, vol. xx., p. 235.

percussion than was that of the opposite side. Expiration was a little harsh and prolonged in the supra-spinoous fossa. Nothing else abnormal was found in the lungs. No tubercle bacilli were found in the sputum. 0.005 cubic centimetre of tuberculin was injected on the evening of August 24th and in less than 24 hours the temperature had reached 100.4° F., becoming normal once more within 12 hours. A positive diagnosis of tuberculosis was therefore made (see chart, Fig. 2).

The following case is of interest in that it shows the value of tuberculin in excluding tuberculosis.

CASE 3.—The patient was a man, aged 57 years. He had had pleurisy 18 years ago, otherwise he was well till 1898; since then he had suffered from a cough, shortness of breath, and dyspepsia. The physical signs were those of general emphysema. In addition the apices of the lungs were not free from suspicion of tuberculous disease. The percussion note was impaired at the left apex, the inspiratory murmur was high pitched; vocal resonance was somewhat increased in both infra-clavicular fossae, and there were fine râles, especially at the left apex. No tubercle bacilli were found in the sputum. On Sept. 1st 0.005 cubic centimetre of tuberculin was injected, but there was no reaction at all. On Oct. 14th, as the man's condition was somewhat worse and the cough was more frequent, a further examination of the sputum was made, and a report was returned that numerous tubercle bacilli were present. Dr. Mackenzie viewed the report with suspicion, and on the 23rd he again injected 0.005 cubic centimetre of tuberculin and again failed to get a reaction. The sputum had been repeatedly examined since Oct. 14th but no tubercle bacilli had been found, and there seemed to be no doubt that owing to some mistake on the part of a hospital porter the report of Oct. 14th was not based on the sputum of this patient. A further injection of 0.01 cubic centimetre of tuberculin was given on the 30th, but no reaction followed. Tuberculosis was therefore excluded in this case (see chart, Fig. 3).

FIG. 3.



A (Oct. 23rd), Injection of 0.005 cubic centimetre of tuberculin. B (Oct. 30th), Injection of 0.01 cubic centimetre of tuberculin.

These few cases are, I think, sufficient to show you the value of this method and I will not trouble you by further details. To conclude, in my deliberate opinion we have in Koch's old tuberculin a most valuable means at our disposal for making a positive diagnosis in a large number of cases, which present suspicious symptoms and signs, at a much earlier stage of the disease than we can by any other means. We are thus enabled to impress upon our patients the vital importance of living under suitable conditions and amongst ideal surroundings and to place them on the road to an almost certain arrest of their disease.

## THE DIFFERENTIAL DIAGNOSIS OF SMALL-POX.<sup>1</sup>

By J. MACCOMBIE, M.A., M.D. ABERD.,  
MEDICAL OFFICER AT THE BROOK FEVER HOSPITAL.

WHEN I was asked to read a paper on small-pox to the Hunterian Society it appeared to me that the differential diagnosis of that disease would be a subject of interest to the members of the society, and that perhaps my observations might prove helpful to those whose opportunities of observing small-pox have been limited. The diagnosis of

small-pox presents difficulties, first, in the pre-eruptive stage and, secondly, in the eruptive stage.

### THE DIAGNOSIS OF SMALL-POX IN THE PRE-ERUPTIVE STAGE.

In the pre-eruptive stage difficulties often occur in connexion with prodromal rashes which may simulate scarlet fever and measles. Prodromal rashes resembling scarlet fever are usually best marked on the trunk, the abdomino-crural triangle—a triangle the base of which is on a level with the umbilicus and the apex about eight inches below the symphysis pubis—and the flexor surfaces, and they simulate scarlet fever closely in punctate appearance; but the absence of eruption for the most part on the extensor surfaces, the face, the neck, and the temples, and the exemption from faucial inflammation and submaxillary glandular enlargement, should warn one off a diagnosis of scarlet fever, especially if backache be a pronounced symptom. In other cases there is a copious crop of petechiae in the abdomino-crural triangle and other flexures. Now, in scarlet fever petechiae are rarely noted in the abdomino-crural triangle; more often they appear in other flexures.

Some hæmorrhagic cases of small-pox show a vivid red erythema involving the whole of the skin of the trunk and the limbs, with petechiae in the abdomino-crural triangle and other flexures, and deep purple or black subcutaneous hæmorrhages appear similar to those noted in purpura. Such cases are not infrequently diagnosed as scarlet fever, especially before the appearance of the flexure petechiae and purpuric spots. The eruption is not at first punctate, like that of scarlet fever, but may quickly assume a pseudo-punctate character on the groins and other flexures owing to the appearance there of crops of small, deep red petechiae. The faucial symptoms are unlike those of scarlet fever, and the initial symptoms of small-pox are usually well-marked, especially the lumbar pain; but in the earlier stages of these rashes the diagnosis is extremely difficult, and even those with special knowledge of infectious diseases may make a mistaken diagnosis.

The prodromal rash that resembles measles counterfeits very closely the eruption of that disease. It disappears on stretching the skin, but it is only slightly, if at all, raised, and therein lies the great difference between it and measles. It reaches its height within 24 hours of its appearance, and fades quickly, either before or soon after the appearance of the characteristic eruption of small-pox. The eruption envelops the whole skin more quickly than does that of measles, and in most instances it is not preceded by catarrhal symptoms; not infrequently, however, there is considerable conjunctival suffusion.

A valuable aid to the differential diagnosis of small-pox in the initial stage and measles is the presence or absence of Filatow's spots; if these be present the case is in all likelihood one of measles. Filatow's spots are situated for the most part on the buccal mucosa opposite the molar teeth, and less markedly on the mucosa opposite the other teeth. They are very small, raised, whitish dots, of about the size of a small pin's head, generally on a reddened base. They are usually discrete, but sometimes a confluent patch is seen. They appear in the majority of—some observers say all—cases, and they disappear usually within one or two days of the appearance of the eruption. Be it remembered that I am speaking of the pre-eruptive stage of small-pox, because in the eruptive stage the eruption of small-pox on the buccal membrane might possibly be erroneously regarded as Filatow's spots. These are, however, much smaller than the buccal small-pox spots, and they are arranged for the most part on the mucosa opposite the teeth and gums, whilst the spots of small-pox are distributed generally, more particularly affecting the palate, fauces, pharyngeal walls, and tongue.

In addition to these prodromal rashes there are many erythemas affecting circumscribed areas of the skin, and in appearance these often simulate scarlet fever and measles. I have little time to speak of these, though they afford valuable aid to the diagnosis of small-pox. I may say, however, that circumscribed punctate prodromal eruptions showing on the groins, the sides of the trunk, or the lumbar regions, or on the flexures of the arms and legs, or morbilliform or patchy non-punctate erythema affecting usually the extensor surface of the arms, the hands, the legs, or the feet, if the initial symptoms of small-pox be present, are often sufficient warranty for suspecting the onset of small-pox and for taking measures accordingly. It is important to remember that

<sup>1</sup> A paper read at a special meeting of the Hunterian Society held on Nov. 5th, 1901.

small-pox prodromal rashes are extremely rare in persons under 10 years of age, whilst the majority of cases of scarlet fever and measles occur under that age.

*Erythema multiforme* may cause difficulty. Usually initial symptoms resembling those of small-pox are absent. When present it is desirable to keep the patient under observation till the third or fourth day of disease, when the diagnosis will be rendered certain by the appearance or non-appearance of the eruption of small-pox.

*Typhus fever*.—At first sight it does not appear likely that this disease would be mistaken for small-pox, and if the observer will recollect that in typhus fever the eruption usually appears on the fifth day of disease and that it is not raised a mistaken diagnosis should not occur.

*Influenza*.—Only severe cases of influenza will be mistaken for small-pox, and then the prostration is perhaps more complete from the first than in small-pox. Pains behind the eyes and pains in the limbs are usually very pronounced symptoms in influenza. If an erythematous eruption be present the diagnosis is obscured, but the non-appearance of small-pox papules on the third day of the disease should clear up the diagnosis.

*Ptomaine* rashes from shell-fish, &c., are not unlike morbilliform erythemas of small-pox; but the absence of backache, with the history of rash appearing concurrently with the onset of the symptoms and inquiry as to diet, should obviate any mistake.

*Rötheln and copaiha rashes and liohen*.—In these the initial symptoms of small-pox are absent.

*Lumbago*.—In this condition the absence of pyrexia and headache should be sufficient to exclude the diagnosis of small-pox.

#### THE DIAGNOSIS OF SMALL-POX IN THE PAPULAR AND VESICULAR STAGES.

Here it is desirable to enumerate the prominent initial symptoms of small-pox and to describe the eruption thereof. The prominent initial symptoms of small-pox are headache, lumbar pains, often rigors, anorexia, vomiting and malaise, and pyrexia. The duration of these symptoms before the eruption of small-pox appears is usually 48 hours. And these initial symptoms are usually equally pronounced in vaccinated and in unvaccinated subjects, and in mild and severe cases alike. The modification of the disease caused by vaccination does not appear until the eruptive stage. In unvaccinated patients the eruption is in its very earliest stages macular. The macules speedily become papules, and are then hard and raised, and in the course of 24 hours have a distinctively shotty feeling, and show commencing vesiculation. The eruption takes from one to three days to come fully out, the length of time depending upon the abundance of the eruption. The vesicles increase in size, and at the end of five days they attain their full growth, when they are round and of about the size of a small pea with flattened top, and they mostly show depressed centres. They are of pearly appearance and are filled with clear serum. They are multilocular and do not collapse when transfixd with a needle. In the pustular stage many of the pustules become dome-shaped instead of being flat or depressed.

The eruption of small-pox in vaccinated subjects is macular or papular at first, and within a few hours of its appearance much of it is distinctly shotty. Some of the papules may show minute vesiculation at the end of the first day, and on the second and third days the vesicles have often reached their full growth. They are circular, often small, and generally more or less conical—not flattened or depressed, or showing only a minute depression. On the face the vesicles may be irregular in outline and not unlike spots of acne, but they do not show a central dot. The vesicular fluid is at first clear, but on the second and third days it becomes opaque, and many of the vesicles desiccate with no further evidence of pustulation; many of the papules never become vesicles. In other cases the eruption approaches more nearly to the eruption of small-pox as seen in unvaccinated subjects; but in a large proportion of cases of small-pox in vaccinated subjects the evolution of the eruption is more rapid than is the case with the eruption in unvaccinated subjects. The distribution of the eruption in both vaccinated and unvaccinated subjects is as a rule most abundant on the face and extremities, less so on the trunk, and usually there is more eruption on the back than on the chest and abdomen. The eruption is generally present on the palate, the fauces, and the tongue, and usually in

direct proportion to its abundance elsewhere. The temperature is high in the initial stage, but it begins to fall shortly after the appearance of the eruption, and when the eruption is fully out in most cases it falls to normal; in severe and confluent cases, however, it may not fall under 100° F.

The diagnosis of small-pox in the eruptive stage is often extremely difficult, consequently many mistakes occur, cases of small-pox being diagnosed as some other disease—very often chicken-pox or measles—and cases of other diseases being diagnosed as small-pox.

*Chicken-pox*.—The disease most frequently mis-diagnosed for small-pox in the eruptive stage is chicken-pox. In this disease the absence of initial symptoms is in striking contrast to their presence in small-pox. In a very few cases, however, especially in adults, there may be initial symptoms of backache, malaise, and some pyrexia, lasting from 12 to 48 hours, and followed by eruption. These are most exceptional, and usually the first thing noted is the eruption of vesicles on the trunk, the limbs, or the face. If observed from the very commencement these are at first macules, which in an hour or so become papules, and in a few hours vesicles. Some of the vesicles attain their full size within eight, 12, or at most 24 hours. The vesicles are then usually glistening, hemispherical, or dome-shaped and transparent. On transfixing with a needle the contents escape and the vesicles collapse. The shape of the vesicles is elongated, elliptical, or circular on the trunk and extremities, and irregularly round on the face and the scalp. On the forearms, the hands, the legs, and the feet they are often circular and smaller than those on the trunk. In these latter positions the vesicles, being small, look not unlike the vesicles of modified small-pox, and in addition they have often a more or less shotty feeling. In a large number of cases typical chicken-pox vesicles will be found only on the trunk, not on the face or extremities; as a matter of fact, the distinctive shape and appearance of the vesicles of chicken-pox become less and less characteristic towards the distal ends of the extremities. Often within eight or 13 hours, always within 24 hours, of the appearance of the eruption some of the chicken-pox vesicles have reached their full growth, and are then as large as the vesicles of small-pox in unvaccinated subjects at the fourth or fifth day of the eruption, and as large as, or larger than, the vesicles of small-pox in vaccinated subjects at the end of the third day of the eruption. If the eruption be copious many of the chicken-pox papules abort, many of the vesicles do not attain their full growth, never becoming larger than a small pin's head. In some few cases the vesicles fill only partially with fluid, are flattened, and are of a dull white or tallowy colour; but in these the distribution of the eruption is markedly that of chicken-pox, and the elongated or elliptical shape of many of the vesicles is pronounced. In point of distribution the eruption of chicken-pox is, as a rule, most abundant on the trunk, less so on the face, the scalp, the thighs, and the arms, and still less so on the forearms, the hands, the legs, and the feet. On the palate and the fauces the eruption is present in many cases, but usually it is sparse. Pyrexia in chicken-pox is usually synchronous with the appearance of the eruption, and the temperature may, or may not fall when the eruption is fully out. In cases where the eruption appears in successive crops there is usually a distinct rise in temperature with each crop.

What, then, are the diagnostic points between chicken-pox and small-pox? There are (1) the distribution of the eruption; (2) the shape of the vesicles; (3) the rate of growth of the vesicles; and (4) the unilocular character of the vesicles of chicken-pox compared to the multilocular nature of the vesicles of small-pox.

From what I have just said it will be noted that the distribution of the eruption of chicken-pox is, as a rule, the opposite of that of small-pox. In shape some of the vesicles of chicken-pox are elongated or elliptical; in small-pox the majority of the vesicles are circular. The typical vesicles of chicken-pox attain their full growth in a few hours and are then dome-shaped, distended with fluid, transparent, and they collapse on being transfixd. In small-pox, whether in vaccinated or unvaccinated subjects, the vesicles do not attain their full size on the first day of the eruption, and that is a fact of crucial importance in the differential diagnosis of the two diseases. Observation of the eruption on the face, the arms, and the hands only should never be relied upon for the diagnosis of chicken-pox, for upon those parts the eruption

simulates that of small-pox closely, and very many errors in diagnosis have been made by so limiting the observation. There should be no failure to examine closely the whole eruption.

Though statements are made to the effect that the vesicles of chicken-pox when at their full growth and distended with serum show depressed centres, just like small-pox vesicles, this is not the case. The unruptured chicken-pox vesicles are not depressed in the centre, but the ruptured vesicles may be. The chicken-pox vesicle ruptures naturally or forcibly by scratching or friction, a portion of its contents escapes, and it collapses centrally. In the centre a tiny scab of dried serum forms, occluding the opening and preventing the further escape of serum. It is then that the ruptured vesicle shows a depressed centre, but on close examination a small dried scab in the centre showing that the vesicle has ruptured will be found. This ruptured vesicle may be noted within 12 hours of the appearance of the eruption. I have only once seen an unruptured vesicle of chicken-pox with a depressed centre, and the cause of the depression of that particular vesicle was that in its centre there was a thick long hair—a small mole-hair, in fact—and the epidermis forming the envelope of the vesicle was held down by the hair follicle, thus causing a depression. The vesicle was situated on the abdomen.

Frequent mistakes are made in diagnosing small-pox in unvaccinated children as chicken-pox, such mistakes often resulting in outbreaks of small-pox. If regard be had to the differential diagnostic points that I have endeavoured to emphasise no such mistake should occur.

**Measles.**—Confluent small-pox on the first or the second day of eruption is not infrequently diagnosed as measles, and *vice versa*. The observer is usually misled by the appearance of the eruption on the face, the arms, and the neck. In confluent small-pox the skin in these situations is often intensely hyperæmic, swollen, and studded with raised pink or purple papules, accompanied in many cases by conjunctival suffusion. The patient's aspect and the appearance of the eruption are very like those of measles, but close observation will show that the papules are more raised than are the papules of measles, and by drawing the finger firmly across the forehead the eruption will be felt to be hard and shotty, while in measles, though slightly resistant, it is soft and velvety. That is the diagnostic point. Probably also in small-pox some of the papules will show commencing vesiculation.

**Syphilitic eruptions.**—Usually the scaling and pustular eruptions are mistaken for small-pox. The coexistence of a papular, scaling, and pustular eruption, its symmetrical appearance, and the history of the case should negative small-pox. If the specific eruption be ushered in by very high fever it is to be noted that the papules are not shotty but flat, and careful inquiry and inspection will in most cases resolve the doubt. Here most errors in diagnosis are due to the observer omitting to examine the whole of the eruption and to insufficient inquiry as to the history of the case.

**Herpes.**—Small clusters of herpes, wherever situated, may simulate vesicles of small-pox, but the absence of initial symptoms and full development of vesicles on the first day should obviate any mistake.

**Eczema and impetigo.**—In these conditions also small-pox is negated by the absence of initial symptoms, nor do the vesicles or pustules bear much resemblance to those of small-pox. Yet a considerable number of cases of impetiginous eruptions are diagnosed as small-pox, even in the outpatients' departments of the general hospitals.

**Pemphigus.**—In pemphigus the initial symptoms are absent and the bullæ are larger than small-pox vesicles and are filled with a clear fluid; they collapse on being pricked.

**Urticaria papulosa.**—In this disease the wheals are small, of about the size of a split pea, somewhat hard to touch, and of a dull white colour, and those on the extremities are sometimes not unlike small-pox vesicles. They attain their full size almost at the moment of their appearance, and either have no redness at the base or the usual erythema is present. The initial symptoms of small-pox are absent.

**Acne.**—The initial symptoms of small-pox are absent in acne and the eruption affects the face, the shoulders, and the back for the most part. The pustules are acuminated, sometimes indurated, and they show a central dot. It is well to recollect that the eruption of modified small-pox on the face is sometimes not unlike acne, and it is desirable always to inquire as to the initial symptoms and as to the presence of eruption elsewhere than on the face.

**Rheumatic sudamina.**—In these cases there is the history of rheumatism attended by sweating with the sudden appearance of the eruption, which is most marked usually on the trunk. In the majority of cases the vesicles are small, of about the size of a large pin's head, and that, with the history of the case, is sufficient to exclude a diagnosis of small-pox; but in rare instances the vesicles are large and look not unlike modified small-pox vesicles. I have myself been deceived by an eruption of this character.

**Glanders.**—The initial symptoms in glanders are unlike those of small-pox nor is the onset so sudden. The eruption is sparse, showing as red indurated papules, which rapidly increase till they reach the size of a pea, when they become pustules. There is fetid nasal discharge and the constitutional symptoms are usually severe. The history of the case, the nasal discharge (an exceedingly rare thing in small-pox), and the fact that the severe constitutional symptoms are disproportionate to the amount of eruption, should negative the diagnosis of small-pox.

**Pyæmic skin eruptions.**—Those eruptions which are mistaken for small-pox occur mostly in cases of ulcerative endocarditis. There is usually a comparatively sparse petechial and pustular eruption on the trunk and the extremities. The petechiæ vary in size from that of a lentil to that of a pea, and are irregular in outline. The gradual onset of the symptoms, the date of appearance of the eruption, the great prostration, and the severity of the constitutional symptoms, *qua* the amount of the eruption, should negative small-pox.

The foregoing are the most important but not all the diseases that are mistaken for small-pox, and all those I have mentioned are instances of mistaken diagnosis that passed through my hands in the years during which I was in charge of a small-pox hospital and during the time that it was my duty to diagnose the cases of small-pox before they were sent to the hospital ships.

The difficulties in the diagnosis of small-pox in the eruptive stage are most marked in cases where the eruption is modified by vaccination, especially if there be a very sparse eruption. In small-pox the initial symptoms of headache and backache, rigors, and anorexia and pyrexia are almost invariably present. Indeed, the occurrence of at least some of the initial symptoms is one of the most constant features of small-pox even of the mildest type, and the eruption appears in almost every case after the duration of initial symptoms of about 48 hours. The peculiarity of the eruption of modified small-pox is that its evolution is quicker than is that of the eruption of unmodified small-pox—that is to say, the papules quickly become vesicles and the vesicles soon show signs of pustulation, so that on the second day of the eruption there are definite vesicles which by the third day are in many instances cloudy and opaque. The vesicles are often small and more or less acuminated, frequently not showing depressed centres, and bearing little resemblance, except as regard their circular outline, to the larger, bolder, and clearer vesicles of unmodified small-pox, which show flattened or depressed tops.

It has always appeared to me that many of the mistakes in diagnosis are due to disregard of the significance of the initial symptoms of small-pox. When a patient presents a history somewhat as follows: headache, lumbar pains, anorexia, rigors, and perhaps vomiting and pyrexia, these symptoms lasting about 48 hours, when a papular shotty eruption appears on the face and the extremities, and to a less extent on the trunk, the temperature falling on, or shortly after, the appearance of the eruption,—such a case is in all probability one of small-pox; but if a papular, vesicular, or pustular eruption appears on a person, and the initial symptoms just mentioned have been absent, then most probably such a case is not small-pox.

In the diagnosis of small-pox the following rules should be observed. 1. It should never be forgotten that the initial symptoms of small-pox are most constant both in vaccinated and unvaccinated subjects. 2. When called to a case the practitioner should never take for granted that the eruption on the trunk is like the eruption on the face and extremities, but in every case he should examine the whole eruption. Disregard of this precaution leads to many mistakes. 3. It should not be assumed that because a case of small-pox has occurred in a house, therefore a vesicular eruption appearing on another inmate of the same house about the same time is small-pox. I have known cases of chicken-pox and small-pox occurring simultaneously in the same house, and small-pox and enteric fever cases in the same family at the same

time. 4. It should be remembered that in a very large number of vaccinated subjects small-pox is so mild that as soon as the eruption—consisting sometimes of not more than half-a-dozen spots—has appeared the patient feels well. 5. Care should be taken to avoid ascribing the spots on the face in a mild case to digestive disturbances and sending the patient to the seaside for a little change of air. This may not be the custom, but it is done. A very remarkable instance of mis-diagnosis of this character came under my notice many years ago. The housekeeper of a gentleman in the suburbs was admitted under my care suffering from black small-pox, from which she died. She had ridden in omnibuses and trams to a general hospital in the south of London, was admitted there, and was sent to me on the following day. I learned from her that her master had been ailing a little time before and had been sent to the Isle of Wight for a week's change of air. I saw him some days after his return. He had had a mild attack of small-pox, the spots being ascribed to some digestive disturbance. I asked him to show me his feet, and under the thick skin of the sole of one foot I found an unruptured small-pox pustule.

General practitioners may be assured that they are not the only members of the profession who make mistakes in the diagnosis of small-pox; the physicians of general hospitals are mortal and err in this way, and even the small-pox experts with their special knowledge of the subject are sometimes puzzled and deem it advisable to keep cases under observation till time and the course of the disease resolve the doubt.

Mistakes in diagnosis are more frequent proportionately in times when small-pox is not prevalent. For instance, during the years 1898, 1899, and 1900 176 cases in London were certified to be those of small-pox. Of these 98 were correctly and 78 incorrectly diagnosed. Why, it may be asked, do mistakes so frequently occur in the diagnosis of this disease? The answer is that small-pox is now so erratic and uncertain in its occurrence that many of the younger members of the profession have had little or no opportunity of observing it so as to familiarise themselves with its diagnosis. The result is that only a few men having special knowledge and experience of small-pox are to be found in London, and these are mostly in the service of the Metropolitan Asylums Board. Surely it is most desirable that in view of the great interests involved facilities should be afforded to the profession for obtaining an expert's opinion in cases of doubtful diagnosis. I would venture to suggest that the Metropolitan Asylums Board should appoint a small-pox consultant whose opinion in cases of doubtful or difficult diagnosis should be at the service of the general practitioner and of hospital and infirmary physicians. In this way many cases of small-pox that are mis-diagnosed as chicken-pox, measles, and other diseases might be correctly diagnosed and the untoward results of a mis-diagnosis be avoided, while the incorrect diagnosis of small-pox in many cases of chicken-pox, measles, and other diseases might be obviated, whereby the patients would be saved much inconvenience and the physicians much worry.

Another point of the utmost importance arises in connexion with the diagnosis of small-pox. It is this: In what way can the present prevalence of small-pox be best utilised for the purposes of medical education? An opportunity is now presented to the hospital authority entrusted with the clinical teaching of infectious diseases in London, for the clinical demonstration of small-pox to the senior medical students, medical officers of health, and general practitioners. All patients certified to be suffering from small-pox are removed at present to the Metropolitan Asylums Board's wharf at Rotherhithe. They are detained there a short time and are then transferred to the hospital ships. There is, therefore, at the wharf ample material ready for demonstration and the patients are for the most part in the early stages of the disease, when the eruption is particularly suited for the demonstration of the diagnostic points of small-pox. In addition, much may be learned from the cases of mis-diagnosis sent there. Some facilities have been afforded by the Metropolitan Asylums Board to medical officers of health for seeing small-pox at the wharf and at the hospital ships. The systematic clinical teaching of small-pox, however, has not yet been undertaken, although there appears to be no sufficient reason for delay. I feel sure that the Metropolitan Asylums Board will recognise its responsibility and its duty in this matter and that it will speedily utilise to the fullest extent the small-pox material at its disposal at the wharf and at the hospital ships for the clinical demonstration of that disease to students and practitioners.

Shooters Hill, Kent.

### THREE CASES OF EARLY INFANTILE TABES DUE TO CONGENITAL SYPHILIS AND HEREDITARY NEUROSIS.

By G. T. BROOKSBANK JAMES, F.R.C.S. ENG.,  
ASSISTANT SURGEON TO THE ROYAL EYE HOSPITAL, SOUTHWARK.

THESE cases, which are of exceptional interest from their rarity, have been recently under my care at the Royal Eye Hospital.

CASE 1.—A young woman, aged 20 years, attended my outpatient department early in November, 1901, accompanied by her mother; she complained that everything she looked at appeared to be double and that she had been troubled by this for about a week. She was employed as a general servant at a house some 20 minutes' walk from her own home, where she attended every morning at 7.15, and was employed until 4 P.M., with two short intervals for meals. She stood a good deal while at work. She was an intelligent girl of moderate height and was well made. The upper lids were slightly retracted, the left more so than the right, and when she glanced down they lagged perceptibly behind the movements of the eyeballs. The pupils were unequal, the right being the larger; they were quite inactive to light but reacted slightly on accommodation. There was complete paralysis of the left external rectus. This was the only external ocular muscle affected. Vision in the right eye was  $\frac{3}{4}$  and in the left eye  $\frac{3}{8}$ , the defect in the latter being probably due to the want of accurate fixation. The cornea, iris, lens, and fundus on each side were healthy. The thyroid body was slightly and uniformly enlarged, the heart was regular, 80 in frequency, and there was no bruit over the precordial area or the neck. When the patient was made to stand with the feet together and the eyes closed she swayed perceptibly; the knee-jerks were completely absent and there was general slight but definite anaesthesia over the lower extremities. There were no indications of old periostitis or other bone affection. The head was fairly well shaped and the bridge of the nose was not depressed. The teeth were not good, several molars being decayed. The upper central incisors were widely separated and were narrowed below at their cutting edges. There were no scars at the angles of the mouth, on the palate, or on the fauces. With regard to her previous history, she was a full-term child nursed for 18 months; there was no history of snuffling or rash on any part of the body. Her general health had been good until the present illness, and she had never been under medical treatment. On close inquiry she owned to not having felt well for about 12 months. She became readily tired on walking and had lost flesh; for about a month she had complained occasionally of darting pains in the upper dorsal region, but no girdle sensation. Quite recently she had been troubled with sharp shooting pains in the course of the ulnar nerve in the right forearm, with numbness in the ring finger and little finger of the right hand. She had also felt a few sharp twinges in the calf of the left leg. Her mental condition appeared to be normal, though she owned to recent slight forgetfulness. There was no tremor. Seeing that the case was in all probability one of the rare examples of infantile tabes I examined the other members of the family. The father, aged 46 years, was a strong healthy man. He had been married 25 years; he was well until four years ago, when he had an attack of rheumatic fever. He had occasionally suffered from sore throat at rare intervals and for short periods; there were no physical evidences of past mischief with the exception of a scar in the groin. On careful inquiry he described an illness when 19 years old for which he was in hospital for about 10 days. He had a discharge from the urethra and a suppurating bubo in the right groin, but no sore on the penis, sore throat, or rash. He was under treatment with pills and ointment for about six weeks. He subsequently got quite well and had no further trouble. His father died from sunstroke, aged 47 years; his mother died from diphtheria, aged 46 years; and one brother and one sister died from phthisis. The mother, aged 42 years, was a delicate-looking woman; there was a history of congestion of the lungs four years ago. She had had attacks of sick headache every six weeks and was obliged to stay in bed when affected by them. There were no history or physical signs of present or past specific mischief. As to the family history, there was a sister;

aged 38 years, who was married and had two children, and who was in good health. There was a brother who died at the age of four years who had harelip and cleft palate. There was a brother, aged 35 years, who had recently been in the lunacy ward of the infirmary with acute mania following influenza; he had been ill for two months, but had now recovered and had resumed his occupation. There was a sister, aged 30 years, married, who had three children and who was well. There was also a brother, aged 27 years, married, who had three children and who was well. Three children had died in infancy; the cause was unknown. Her father was living, aged 68 years, and her mother died from small-pox, aged 46 years.

The following are notes upon the remaining children of this couple.

CASE 2.—A boy, aged 17 years, of good height and fair development, with a square head, a prominent forehead, and a saddle-shaped nose. The upper central incisors were separated and pegged. There were scars at the angles of the mouth. There were gross central choroido-retinal changes in the right eye, with vitreous opacities. R.V. =  $\frac{1}{2}$ ; L.V. =  $\frac{1}{4}$ . The right pupil was sluggish to direct light but was active consensually. The knee-jerks were sluggish; there was no anaesthesia or incoördination, and there were no mental symptoms. He was a full-term child, nursed for 18 months. He had had snuffles. He had had no rash and no medical treatment during the first three years. There was a history of eruption of the head when he was three years old lasting three months, and he had been treated for this. His milk teeth were said to have been good. Visual acuity in the right eye began to fail three years ago. He had attended the Royal Eye Hospital and was at present under treatment. This patient was under the care of Dr. W. J. Collins who has kindly allowed me to refer to his case.

CASE 3.—A girl, aged 15 years. She was of good height, was well made, and intelligent. Her complexion was fairly good; her nose was saddle-shaped. Her central incisors were separated and narrowed. There were no scars at the angles of the mouth. The pupils were unequal, the right being the larger; they were very feebly active to light and reacted to accommodation. The knee-jerks were sluggish. There was no anaesthesia or incoördination. Vision =  $\frac{1}{2}$  each eye; the cornea, fundi, &c., were normal. She was a full-term child, nursed for 18 months; there was no history of snuffles or of rash; the upper extremities were paralysed during infancy, and the patient underwent medical treatment for this at the Belgrave Hospital. The thyroid gland was normal. A systolic murmur was heard over the apex of the heart. There was a history of rheumatic fever and influenza, but no other illness.

CASE 4.—A girl, aged 10 years. She was well made, of good height, and intelligent. Her complexion was fairly good. Her nose was saddle-shaped. The central incisors were separated and narrowed. There were no scars at the angles of the mouth. The pupils were normal. The knee-jerks were present. She was a full-term child, nursed for 18 months; there was no history of snuffles or of rash.

CASE 5.—A girl, aged eight years. She was intelligent. Her skin was thick and rather pasty-looking. She had a saddle-shaped nose. The central incisors were separated and narrowed below. The pupils were unequal, the right being the larger; they were inactive to light and feebly inactive to accommodation. The knee-jerks were sluggish. The fundi were normal. Right vision =  $\frac{1}{2}$ ; left vision =  $\frac{1}{4}$ . There was some compound hypermetropic astigmatism. There was no history of pains and no anaesthesia or incoördination. She was a full-term child, nursed for 18 months. There was no history of rash or of snuffles.

CASE 6.—A boy, aged four years. He was a full-term child, nursed for 12 months. There was no history of illness and no abnormality.

CASE 7.—A healthy infant, aged 18 months.

Case 1 is evidently an example of tabes, and though it is of course impossible to say if mental symptoms will supervene and the case end as one of general paralysis at present it appears to be uncomplicated. The existence of two of the symptoms of early exophthalmic goitre at the same time is probably accidental, though the retraction of the upper lid is more likely due to some central irritation than to an affection of the sympathetic. Case 3 shows the pupillary phenomena connected with tabes and sluggish knee-jerks. Case 5, with sluggish knee-jerk and the Argyll-Robertson pupil, may also fairly, I think, be described as a case of early tabes.

Such cases as these must be very uncommon. Mr. Jonathan Hutchinson's immense experience has not provided him with a single example of locomotor ataxy due to congenital syphilis nor has he seen from the same cause the isolated paralysis of an external ocular muscle such as that of the left external rectus in Case 1. Raymond has not seen a congenital example among 500 cases of ataxy.<sup>1</sup> Sir William Gowers has seen several cases.<sup>2</sup> Dr. F. W. Mott has described one case. The characteristics distinguishing such cases from Friedreich's ataxy have recently been specially pointed out by Mackie White<sup>3</sup> and others. The presence of the Argyll-Robertson pupil and a history of syphilis are the chief points of distinction. Syphilis is, of course, the primary etiological factor in the examples I have described, and though hereditary neuropathy on the mother's side may have had some weight in determining the tissue incidence of the disease, who would assign to it such power in the absence of syphilis? None of the more indirect and exciting causes dwelt on by Dr. T. S. Clouston, Dr. Mott,<sup>4</sup> and other observers seem to have been present in the cases I record. Case 5, which shows some undoubted evidences of tabes at the early age of eight years, the earliest age, if I remember rightly, at which infantile general paralysis has as yet been met with, can scarcely be considered as influenced by the crisis of puberty. Indeed, on careful inquiry, I can find no evidence that these children have led other than a fairly healthy life in a comfortable home and with kind parents. They are uniformly intelligent and well-behaved, nor is there a history of physical over-exertion save in the instance of Case 1. These cases are evidently by no means so common as the examples of infantile general paralysis. I am, however, inclined to think that if careful examination of the pupils and nervous system were undertaken in more cases of congenital syphilis that we should find Argyll-Robertson pupils and absent knee-jerks more frequently than is usually supposed. At any rate, the knee-jerks were absent in two cases of interstitial keratitis which came recently under my own observation. Whether the Argyll-Robertson pupil and the absent knee-jerk can remain through a long life the sole evidences of the influence of congenital syphilis on the nervous system I do not know, but the occurrence of such cases lends strength to the hypothesis that possibly some of the small percentage of cases of adult tabes in which acquired syphilis as a factor can be definitely excluded may be due to a faint congenital taint, so faint, indeed, that the patient may not disclose it by any of the other evidences on which we are accustomed to rely. It must also be remembered that an examination of the collateral relatives (so frequently an aid to diagnosis) is a much more difficult matter to obtain in the case of adults affected with congenital syphilis than it is in the case of children. A glance through a family history such as this brings vividly before the mind the subtle influence of this terrible disease. In presence of the serene apathy of the public and legislature with regard to this great question we may well consider whether even with the limited means that medicine has placed in our hands we do everything that is possible to prevent such sequelæ in the congenital form of the disease. Infants who suffer in the first year of life are taken to the various children's hospitals. They are kept under treatment for varying periods, which seldom exceed a year. They are then frequently lost sight of. Succeeding children in the same family are only taken to a hospital if the snuffling is severe enough to prevent them suckling or the rash and wasting sufficiently obvious to alarm the mother. Marked and perhaps moderate cases of infantile syphilis are thus no doubt generally treated, but a large number of cases where the malady is partially latent in the early stage receive no attention until towards puberty or later, when an attack of interstitial keratitis, choroiditis, or disease of bone draws notice to the congenital malady and energetic and long-continued mercurial treatment is often adopted with but partial success. I speak in this matter from a knowledge of the early history of many cases of interstitial keratitis. It is remarkable how frequently one meets with no record of symptoms in infancy. Mild symptoms are generally present, no doubt, as we so frequently meet with the relics of past inflammatory

<sup>1</sup> "Tabes Juvénile et Tabes Héritaire," *Le Progrès Médical*, 1897.

<sup>2</sup> *Lectures on Syphilis*, 1889.

<sup>3</sup> *Brain*, 1898.

<sup>4</sup> *Archives of Neurology*, 1899.

trouble in patients towards the age of puberty who give no history of early illness or treatment. The important fact remains, however, that such early symptoms were not of sufficient severity to induce the parents to bring their children for treatment. Moreover, such treatment is often very short and is discontinued with the disappearance of the rash. Only one of the children whose cases I have described in this paper were under treatment in infancy. Not one of the 25 cases of infantile general paralysis described by Dr. Mott were under treatment in infancy, though their disease was proved to be due in nearly every instance to syphilitic inheritance. These facts are surely of importance. They suggest that our present methods of treating congenital syphilis leave much to be desired. They suggest that such methods are more fitted to disperse a rash or to control a symptom than to ensure the perpetual latency of a disease which we cannot cure. The infection in many of these latent cases is derived from the father nor can we hold dogmatically that its virulence decreases in power with successive children, if we compare Case 1 with Case 5. To place the mother under treatment in a good many cases would be useless. Something might be done by the treatment of the father, but more, possibly, by the systematic early and long-continued treatment of the children. It would surely be wise to warn all parents who have been obliged to take one child for treatment in the early stage that all their subsequent children should be considered as infected and should be brought for inspection, to undergo a prolonged course of treatment if they show the slightest symptoms of the disease. Few surgeons will deny the efficacy of mercurials in bad cases of infantile syphilis in the first year of life. Most surgeons employ them in those later manifestations which are analogous to tertiary syphilis in the adult. It is surely more rational to consider the disease as present at birth in all infected families and to put the successive children at once under supervision, using mercury and the iodides at occasional intervals for many years—not to treat a symptom, but to prevent its manifestation in the manner suggested by Sir William Gowers in acquired syphilis. No doubt it would be rash to anticipate that in this way a great diminution in the number of patients suffering from the later affections would be brought about, but if we could in some greater degree prevent the occurrence of those sad cases where blindness, deafness, or paralysis are the heralds of manhood we should not have laboured in vain.

The following is a complete list of the children born to this couple arranged according to age. I have personally examined every living member of the family save one. There have been no miscarriages. 1. A boy, born seven and a half months. There was no history of rash or of snuffles. He had water on the brain and died when seven months old; he was nursed. 2. A girl, born 15 months after the first child; she was a seven and a half months' child and was nursed for 18 months. There was no history of rash, snuffles, or early treatment. When 12 years old she attended the Orthopaedic Hospital for crooked spine. She is now married and has two children. 3. A boy, born 14 months after the second child; he was an eight months' child and was nursed for five weeks. There was no history of rash or snuffles and no treatment. He died from bronchitis when five weeks old. 4. A girl, the first patient whose case I have recorded. She was born 14 months after the third child. 5. A girl, born 13 months after the fourth child at full term; she was nursed for 18 months. There was no rash or snuffles and no early treatment; she died after a week's illness when three years old. 6. A boy, born two years after the fifth child at full term. He had snuffles very badly from birth and difficulty in the suckling, but no rash. He was treated for two weeks and died when seven weeks old. There was no wasting. 7. The boy with "central choroidoretinitis" described as Case 2 in the preceding notes. 8. The girl, aged 15 years, with inactive pupils, described in the preceding notes. 9. A boy, born two years after the eighth child at full term. He was nursed for 18 months. There was no rash or snuffles and no treatment. He was healthy until the age of two years and 10 months, when he died from whooping-cough and bronchitis. 10. The girl, aged 10 years, healthy as regards the nervous system, &c., described in the preceding notes. 11. The girl, aged eight years, with inactive pupils and absent knee-jerks, described in the preceding notes. 12. A boy, one year and nine months, born at full term. He was nursed for one month. There was no rash or snuffles. He wasted and died, aged six

months; he was under treatment for one week. 13. The boy, aged four years, referred to in the preceding notes. 14. The baby, aged 18 months, referred to in the preceding notes.

Carlisle Mansions, S.W.

## SOME POINTS IN THE PROGNOSIS OF MENTAL DISTURBANCE.<sup>1</sup>

By W. J. HANDFIELD HASLETT, M.R.C.S. ENG.,  
L.R.C.P. LOND.,

MEDICAL SUPERINTENDENT AND LICENSEE, HALLIFORD HOUSE.

I PROPOSE to give you some general points affecting the prognosis of attacks of mental disturbance and I trust it is a subject which may prove of some little interest to the members of this society. I am sure that there is no one present who has not been called upon to treat cases of brain instability either in the home of the patient, in the house of a medical man, or in a public institution, such as an infirmary or a hospital, where these cases are often at any rate temporarily treated. It is not proposed to give any detailed classification of mental diseases or to deal with those very rare forms of insanity not usually seen in general practice. It is simply my intention to give you some broad lines on which to form a prognosis, based upon my notes of some 200 cases which have occurred in my own practice.

Of all the ills to which we medical men are called upon to minister the mind diseased requires most care, caution, and judgment in the formation of a prognosis, and I consider that a judicious hedging is often not only justifiable but necessary. Some of the questions which the anxious relatives will ask you are as follows: Will the patient die? Will he recover? How long will the recovery take? What is the danger of recurrence? and each of these will have a very big note of interrogation after it. There are other more remote and less urgent questions, such as whether the patient should marry when he is convalescent, whether he should be relieved of the control of his monetary affairs, and as to his testamentary capacity. These questions are largely medico-legal and hardly come within the scope of this short paper.

The majority of the cases with which you will be asked to deal will probably prove to be suffering from mania or melancholia, because nearly all chronic forms of insanity begin with one or other of these emotional conditions and because they are more obvious and compel the attention of the friends sooner than cases of, say, failing memory, defective judgment, or harmless delusions. Mania *per se* is a very curable disease, whether it be simple mania, characterised by insomnia, constant rambling speech, and motor excitement, or the severer form of acute mania with all those symptoms accentuated and with complete incoherence and the presence of sensory hallucinations and numerous delusions.

In all probability the case which appears worst to the friends is the one in which the prognosis is most favourable, for the patient in whose case there has been a sudden severe onset with violent excitement, raving speech, and subconsciousness to surroundings is much more likely to recover than one in whose case there have been obscure indefinite beginnings and a prolonged insidious course. Putting it broadly, when the onset is sudden and can be traced to a definite cause, when the patient is under 35 years of age and otherwise healthy, and when he has not had previous attacks, the prognosis is good. The possession of a neurotic or insane ancestry does not militate against his recovery, although it will predispose to future relapse. Therefore inquire carefully into the cause and history: if both are well defined the prognosis is good. Above all, eliminate general paralysis of the insane, tabes, tumours, epilepsy, and other brain diseases, because these are often masked by mania, particularly the first and the last. If the patient's general health be poor, if he has lost weight and is anæmic and sleepless, it brightens the prognosis, because as we improve his physical condition his brain will clear *pari passu*. The chances are that one condition is intimately associated with the other. If the patient be in robust health from the start or if his brain does not clear up as his bodily

<sup>1</sup> A paper read before the Windsor and District Medical Society on Nov. 20th, 1901.

health improves the prognosis is less favourable. Again, if you find your patient harping on the same delusion or delusions week after week you will feel anxious about him because that delusion will tend to become fixed and crystallised in his brain and will persist. When the delusions are very numerous and kaleidoscopic and change their character frequently we may feel more hopeful of their ultimate disappearance. The nature of the delusions matters little in acute mania. Their changeability or fixity is the point which interests us most.

With regard to hallucinations, those of sight have the least grave significance. Auditory hallucinations generally pass away as the acute symptoms subside, but if they persist for over a year, particularly if they be associated with delusions of persecution, the condition is likely to become chronic. Hallucinations of taste and smell are extremely grave and seem to indicate permanent brain injury. I have never known a case in which they were present to recover. They are frequently seen late in a series of attacks of alcoholic mania. Periodicity is another characteristic which must make us pause in our prognosis. Periodicity must not be confused with recurrence. The latter occurs at irregular intervals and can generally be traced to a cause. The interval may be weeks or years and the attacks point to unstable mental equilibrium, but not to the establishment of a "habit." Periodicity means that the interval between the attacks is always of the same length. The return of the alienation may be coincident with menstruation or the seasons of the year, or it may have no such relationship, but in any case a cycle is formed with fairly regular intervals between the attacks. When this cycle is established it is called by the French "*folie circulaire*," and it is considered to be quite incurable. The mania ushering in fevers or appearing at the climax is usually favourable, but the insanity following typhoid fever, which is due to great exhaustion, I have found to be very unfavourable. It does not kill, but in four cases out of my six chronic delusional insanity supervened.

I must touch on two or three very common varieties of mania before I leave this subject.

**Acute delirious mania.**—This is a disease which requires prompt treatment in order to save the life of the patient. It is characterised by complete incoherence, low muttering delirium, pitting of bedclothes, great tissue waste, and often increased temperature and grave constitutional symptoms. Large quantities of fluid, easily digested food with stimulants, and probably hypnotics, must be given by the nasal or the oesophageal tube, otherwise the patient will rapidly sink. The following are some of the points for and against recovery. If food can be given in large quantities and digested, if sleep can be procured, if the pulse remains below 100, if the increase of temperature is slight, if the tongue remains moist, and if there is no muscular tremor or subsultus tendinum the prognosis is good. If food cannot be retained in sufficient quantities (rectal feeding is no good), if the pulse is rapid, and if the temperature be over 100, and particularly if typhoid symptoms appear, such as dry, brown tongue and sordes, the prognosis is bad. Out of eight cases of this malady six recovered and two died. Of the latter, one could retain no food, however prepared or administered, and in the other a persistent temperature of 102° F. burnt out the patient. Both the vomiting and the fever were of neurotic origin and no visceral lesion was found either ante mortem or post mortem.

**Puerperal mania.**—This is very common and is perhaps the most curable variety of mental disorder. When it occurs after post-partum or ante-partum hæmorrhage it is often fatal, but on an average from 80 per cent. to 35 per cent. of the total number of cases make good recoveries. Out of my 14 cases 13 recovered and one remained in a state of chronic mania. Heredity does not affect the prognosis, but delay in treatment and age influence the recovery rate. No class of case requires more immediate attention, and every week which is lost affects the chances of recovery. If the patient be over 35 years of age and the type is more melancholic than maniacal the prognosis is not so good. In any case recovery will be delayed. Half of the recoveries take place before the expiration of six months and 90 per cent. during the first year; after that the prognosis is not good.

**The insanity of adolescence.**—This, particularly in girls, is another type of insanity from which recovery is common. It has a peculiar disposition to relapse, for which we must prepare the friends of the patient. When a young man

or a young woman quickly recovers from an acute attack and is apparently well we must warn the friends that the brain is not yet stable and that probably other attacks will follow before permanent convalescence is reached. On the other hand, when they are inclined to be despondent through the recrudescence of maniacal symptoms we may hearten them by telling them that this is not unusual and does not in itself lessen the chances of recovery. The male adolescent does not do so well as the female. The prognosis remains good longer in the case of a woman. Half of the recoveries take place before the fifth month in the male, after which only a small proportion recover; in the female the prognosis is good up to 10 months. The female is more purely maniacal; the male is often melancholic with erotic and pseudo-religious ideas and practises masturbation. Out of 10 cases—six male and four female—three men recovered and all the women.

**Melancholies.**—In the great class of melancholics youth, a definite cause, a definite onset, and early treatment all influence recovery, as in mania. The mental reductions do not reach the same low level as in mania, and as a consequence the prognosis is hopeful over a longer period. A patient under my own care made a perfect recovery after six years of severe melancholia, and cases of even longer convalescence are well known. Sudden recovery is unusual and seldom permanent. The majority of the cases which recover do so in the first 12 months, and of those which remain unimproved over that period only 5 per cent. or 6 per cent. make ultimate recoveries.

The principal *pros* and *cons* of prognosis are as follows. As the disease is not so acute hallucinations are more serious, especially those of hearing. Imperfect bodily nutrition, such as loss of weight and trophic changes in hair and skin, the latter becoming earthy and greasy in appearance, are of ill omen. Degeneration of habits and inattention to the calls of nature, a constant desire to pick and rub the skin and pull out the hair are also of unfavourable augury. Certain delusions seem more liable to become fixed and permanent than others. For instance, visceral misinterpretations, such as the belief that the bowels never move properly, that the food does not enter the stomach, or that foreign substances are fixed in the body and require a surgical operation for removal, also delusions of persecution, plots, or unseen agency do not readily pass away. Again, sexual delusions, such as those respecting impotence, are of grave significance, and masturbation or fits are serious complications. The prognosis in climacteric melancholia is rendered very unfavourable by secret indulgence in alcohol or drugs and I have noticed that the growth of facial hair in women has always been an indication that recovery will not take place. Prolonged suicidal promptings are of unfavourable import and we must be on our guard in this respect because the tendency often remains dormant for months only to reappear when least expected. Adipose tissue and melancholia seem to be almost incompatible and an extra layer of fat is a very effective armour against a return of depression. Hence in treatment we do all that we can to encourage increased weight. An interest in her personal appearance is one of the primitive instincts of woman, and when we see her natural vanity re-awakening we begin to feel very hopeful. Some psychologist said that "a woman is no better than her hair," and quite recently I had a very good example of this. A young woman who had been suffering from a severe mental breakdown of nearly a year's duration suddenly became shocked to find that her hair which before her illness was of a golden hue had now returned to its natural somewhat unattractive colour. She demanded a bottle of her favourite preparation and set to work on her locks; from that day she made steady improvement and now both her hair and the brain beneath it are restored to their former brilliancy.

Although by far the largest number of the insane must be classified as suffering from dementia yet that subject requires scant attention in a paper on prognosis by reason of its incurability. The recognition of dementia is rarely difficult, so that with an easy diagnosis and a definite prognosis the duty of the medical man is, if unpleasant, far from difficult. He may, however, be asked to give an opinion as to the probable duration of life and then he must consider the primary cause of the dementia as well as the general health of the patient. When the mental enfeeblement follows an acute brain-storm such as mania or melancholia it leaves the mind crippled and damaged and incapable of performing all the higher functions of intellectual life. The judgment, the memory, and the

reasoning power are all impaired, the faculty for origination and continuous application is gone, the tastes and habits are reduced to a lower level, self-control is weakened or is replaced by impulsiveness, and the higher instincts, such as affection for family and friends, are impaired or abolished. In fact, the fine edge is taken off the patient's character and all that this means may be summed up as weakened inhibitory power. After all, mental inhibition is artificially built up by years of training and education, we are not born with it. It is the highest faculty of the mind—and it is the highest faculties which suffer first in severe mental disorders. The patient is negligent in his dress, careless in his manners and speech, self-engrossed and indifferent to the feelings of others; the light of intelligence has faded from his countenance, which is now dull and vacuous. This is by no means an extreme picture. Much deeper reductions occur and the unfortunate patient may be reduced to a level little removed from that of the animal world. All this time he may grow stout and strong, he may eat greedily, he may sleep well, and he may not be unhappy. Certain automatic habits remain to him. He can walk and he can engage in simple employment or in childish amusements. Shielded by his crippled brain from the violent emotions, the hopes, the fears, the disappointments, the ambitions of human life, he pursues the even tenour of his way. Granting that he is properly cared for and other things being equal he possesses a better chance of longevity than his sane contemporaries.

Far otherwise is it with the patient whose dementia is due to organic causes—the general paralytic, the hemiplegic, the epileptic. The decadence of the general paralytic is steady although the duration of the disease is uncertain. During its second stage most patients suffer from cerebral seizures of one form or another and the apparent effect is usually very slight and transient. They are either "syncopal attacks," epileptiform or apoplectiform fits, *petit mal*, or some variety of hemiplegia or monoplegia. The effect of these I would describe in the following way. If you can picture the general paralytic going steadily down a long flight of stairs to the finish, when he has one of these attacks he jumps several steps and starts from a lower plane on his downward progress. As far as my experience goes you will be perfectly justified in stating that the duration of life will be dependent upon the frequency of these congestive seizures.

No rule can be laid down as to when dementia will supervene in epilepsy. That it does occur in a greater or less degree in every case is indisputable. You are all cognisant of the injurious effect of epileptic discharges during the developmental stage of the brain and we are all familiar with the abnormal mental conditions of epileptic children. In giving an opinion as to whether mental symptoms, such as defective moral sense, irritability, impulsiveness, and the evidences of dementia enumerated above, are likely to result from epilepsy, you will take into consideration the age at which the fits began, their duration, and their frequency. Fits commencing during the first five years of life very frequently leave mental defect. It is less likely, but still probable during the second five years. The character of the fits does not seem to matter much, although Dr. J. Hughlings Jackson thinks that *petit mal* is more potent for evil, as occurring in a higher mental substratum. There is no doubt that the frequency of the fits is very powerful in producing deterioration. Yet when all is said we cannot shut our eyes to the fact that one patient may have thousands of fits spread over many years and still show very slight deterioration of mental power, while another may rapidly degenerate under the influence of a short course of fits. The inherent constitution of the brain and its greater or lesser resistive power to the damaging effect of frequent discharges from the cortical cells must be reckoned with. This, however, is usually an unknown quantity.

Time permits me to refer in the most cursory manner only to the insanities caused by syphilis, alcoholism, and senility. Syphilitic insanity may appear 20 years or more after the primary inoculation, and there are probably no other manifestations of the poison. It is not due primarily to changes in the nerve substance but in the vascular and fibrous tissues of the brain; endarteritis is usual with narrowed lumen, and the brain, particularly the white matter, becomes starved of blood. Loss of memory, change of character, tendency to lying, thieving, and immorality are common, and fits often occur. The condition is quite incurable, but it does not tend to shorten life. The prognosis in the various forms of insanity caused by alcohol is good if the poison can be cut

off, but, as we all know, it is a very large "if," indeed, which confronts us. Alcoholic delusions, mania *à potu*, and the early stages of chronic mania are all curable by abstinence, but alcoholic dementia is incurable nor is the patient likely to be long-lived, as the indulgence which damaged his brain has in nine cases out of 10 laid the seeds of other grave visceral disease. Senile mania or melancholia, characterised by amnesia, irritability, great nocturnal restlessness, with selfish, suspicious, and noisy behaviour, is not always incurable. A considerable number of patients make a fair recovery, a great many die, and others pass into dotage with brain-softening.

Before I conclude I wish to lay stress upon one important point and perhaps it will receive emphasis by being the last paragraph in my paper. Never readily condemn a patient as suffering from dementia after an acute mental attack. There is a period of exhaustion and reaction after a brain-storm and the patient is stuporous and restless. He cannot employ himself. He is careless, perhaps dirty, in his habits, his volition is weak, and he has no self-confidence. The condition is very like true dementia, but the cloud will pass, the paralysed energies will revive, and a good recovery will ensue. This condition has deceived me—let it not deceive you—into making a prematurely gloomy prognosis.

Sunbury-on-Thames.

## TUBERCULOSIS OF THE HEART.<sup>1</sup>

By H. NEWTON HEINEMAN, M.D.

OMITTING the common form of tuberculosis of the pericardium, which extends from chronic tuberculous pleurisy by contiguity, I purpose to consider tuberculosis of the endocardium, of the myocardium, and of the pericardium.

### TUBERCULOSIS IN GENERAL.

Tuberculosis of the heart has been considered as of the rarest possible occurrence until Weigert<sup>2</sup> fixed attention upon the fact that, according to his experience at all events, in the majority of cases of acute general miliary tuberculosis discrete small tubercles would be found in different portions of the heart. The heart should more commonly have been found to be the seat of tuberculous ulceration, since Weigert, in 1877, gave to the medical profession the famous clue by which general tuberculosis (general infection) became possible, and is probably caused, pointing out the fact that tuberculous ulceration of the pulmonary vessels existed in some of these cases and that in others tuberculous ulceration of the thoracic duct (Ponfick's<sup>3</sup> discovery) was found and was the probable avenue of general infection. The present more perfect staining methods (which we owe in part to Weigert) will certainly furnish us with a greater number of cases of tuberculosis of the heart in the future.

The idea of infection of the pericardium from the mediastinal and the smaller or larger bronchial glands, themselves previously degenerated, cheesy, and tuberculous, is the result of Zenker's<sup>4</sup> researches. This infection is transmission by contiguity. So far as the mode of the infection goes there is no reason to suppose that it is different from that in which the tubercle bacilli do their work in other parts of the body. Thus Wechsberg<sup>5</sup> sums up his work in the following sentences: "1. Tubercle bacilli destroy by their poisonous action the cellular and interstitial tissue round about them. 2. They injure the newly-formed cells only to the extent that the connective tissue and vascular formation is interfered with and that the protoplasm of these tissues is only partially destroyed (giant cells, spindle cells). 3. Finally, the newly-formed cells themselves are completely destroyed (cheesy degeneration)."

### TUBERCULOSIS OF THE ENDOCARDIUM.

Tuberculous endocarditis was met with by Corvisart, Wagner, Potain,<sup>6</sup> Rindfleisch,<sup>7</sup> Lancereaux,<sup>8</sup> Letulle,<sup>9</sup> more

<sup>1</sup> A paper contributed to the Medicine Section of the British Congress on Tuberculosis.

<sup>2</sup> Sitzung der Medicinischen Section Schlesischer Gesellschaft, July 13th, 1877. Virchow's Archiv, Band lxxvii.-lxxxviii.

<sup>3</sup> Münchener Natur Forscher Versammlung, Sept. 17th to 23rd, 1877.

<sup>4</sup> Virchow's Archiv, Band xcvi, p. 489.

<sup>5</sup> Zur Lehre von der prim. Einwirkung der T. Bacilli-Weigert Laboratorium, Frankfurt, 1901.

<sup>6</sup> Cited by Hérard, Cornil et Hanot: Phtisie Pulmonaire.

<sup>7</sup> Traité de l'Histologie Pathologique, p. 240. Edition française, 1873.

<sup>8</sup> Atlas d'Anatomie Pathologique, pl. 22, fig. 7 et 7<sup>e</sup> sexte, p. 248.

<sup>9</sup> Bulletin de la Société Anatomique, 1874, p. 537.

completely described by Perroud,<sup>10</sup> and latterly more exactly by Kundrat,<sup>11</sup> Cornil,<sup>12</sup> Heller,<sup>13</sup> and Weigert.<sup>14</sup> Tuberculous endocarditis has been almost exclusively observed in cases of acute general miliary tuberculosis. Usually it gives no physical signs during life, because the rapid progress of the disease gives no opportunity for their development. At the necropsy two forms are met with: first, that of granules or nodules; and secondly, that of cheesy masses. The latter form is the less frequent. Letulle met with the latter form once. Near the septum of the left ventricle he found two masses, hard and yellowish-green, one on the upper border of the left ventricular wall and the other on the summit of a papillary muscle of the mitral valve. Perroud found the nodular form quite common in children who had died from acute miliary tuberculosis and especially of tuberculous meningitis. The mitral valve is the favourite and almost exclusive seat of this form of endocarditis. On the border of the auricular surface of the two valves, a few millimetres' distance from the attachment of the tendinous chords, we find vegetations which are formed of minute nodules and may be discrete or confluent. The tubercle bacilli are usually found in the superficial layers. It must, however, be borne in mind that not all endocarditic nodules in tuberculous cases are tuberculous. As to the manner of infection, the mode of transmission already referred to deserves a brief repetition here.

Although Mugge first described a case of tuberculosis of the pulmonary artery and vein in a case of acute general miliary tuberculosis it was Weigert's work, already referred to, that cleared up the mystery of the path of infection. In 12 fatal cases of acute general tuberculosis he found 10 instances of tuberculosis of the pulmonary vessels and two of tuberculosis of the thoracic duct. In the pulmonary veins the disease appears in the form of thrombi or polypoid vegetations. These vegetations occupy the entire thickness of the wall of the vessel and take origin in a caseous centre without. Weigert considers these vegetations the starting-point of the infection of the blood in acute general miliary tuberculosis, and thus, as far as our theme is involved, furnish the starting-point for infection of the heart when this is involved in such cases, and it usually is so involved.

Lion<sup>15</sup> of Paris, in an able essay on "Experimental Endocarditis," experimentally proved the mode of infection, its presence and the character of nodules in tuberculous endocarditis, demonstrating that care in staining methods often determines, not only the question of their existence, but also of the tuberculous character of the nodules, even when invisible to the naked eye. Careless staining, and even indifferent work, are certainly responsible for many negative results.

#### TUBERCULOSIS OF THE MYOCARDIUM.

It is quite interesting to note the discrepancy of opinions prevailing with reference to the occurrence of tubercle of the myocardium. Kreysig,<sup>16</sup> writing in 1814 in Berlin, says: "Tubercular tumours of the heart walls, while met with very rarely, are very probable." Piory<sup>17</sup> said (25 years later): "Tubercles of the heart are very rare. Laënnec found three or four cases in which tubercles existed in the substance of the heart." Still further he says (in 1840): "Tuberculosis of the heart succeeds a general tuberculosis of the body, especially of the lungs. The rarity of heart tubercles is explained by the scarcity of cells or cavities (hollow spaces) between the muscular fibres of the heart. In one case in which a tubercular abscess had opened into the pericardium the tubercles lay outside of this membrane." Friedreich,<sup>18</sup> in 1867, said: "Tubercle occurs in the heart muscle in miliary form, in combination with miliary tuberculosis of other organs, often presenting such fine nodules that without the closest scrutiny one fails to recognise them, but appears under these circumstances and in this way more often than was hitherto generally believed (von Recklinghausen, Virchow, Klob). The large tubercular or cheesy nodules are met with in the heart muscle but rarely,

and, in fact, only in combination with chronic tuberculosis of other organs, especially of the lungs" (E. Wagner, Lüken, Waldeyer). Schroetter, in 1876, says in Ziemssen's Cyclopædia: "Tubercle of the heart occurs principally in the form of discrete miliary yellowish or greyish nodules in the connective tissue between the muscular fibres, aside from its occurrence as part of a general tuberculosis. Rarely do large cheesy nodules appear, and when present are a consequence of chronic tuberculosis usually penetrating from the vicinity (Waldeyer, Recklinghausen: Virchow's *Archiv*, xvi., 1859)." Townsend<sup>19</sup> found (1832) a large tuberculous nodule starting from the left auricle and compressing the pulmonary vein. Hartog,<sup>20</sup> writing in 1901, says: "It seems a pity that Weigert has not received the recognition due to him in clearing up this particular subject and the process of infection in acute miliary general tuberculosis." A year after Weigert called attention to the way in which cardiac tuberculosis had been overlooked, Sanger, in 1878, still insisted upon his own views, but a year later (1879) admitted Weigert to be correct, when the latter said that "acute general miliary tuberculosis was always accompanied by cardiac tuberculosis."

*The form in the myocardium.*—The forms in which tubercles appear in the myocardium are most commonly the fine transparent miliary nodules, at times greyish or yellowish, discrete or aggregated, as found in acute general miliary tuberculosis; again in the larger yellowish nodules, from pea to walnut size; rarely in large cheesy masses; least commonly of all as diffuse cheesy degeneration (Townsend's case was of this nature). When diffuse tuberculosis exists it is the result of infiltration of the muscular tissue by the tuberculous granulation tissue, which is soon transformed into a homogeneous cheesy mass, composed of a conglomeration of tuberculous masses.

*The favourite seat in the myocardium.*—Weigert<sup>21</sup> called attention to the fact that miliary tubercles occurred most commonly in the ventricles.

#### GENERALISATION IN TUBERCULOSIS OF THE HEART MUSCLE AND THE ENDOCARDIUM.

*Frequency of occurrence.*—Haberling<sup>22</sup> made a *résumé* of recent cases (in 1865) and has reported 12 cases. Schöffler<sup>23</sup> went over the same ground in 1873, and Sanger notes 19 cases of tuberculosis of the myocardium in Schöffler's report. Pollak finds 27 cases. Kaufmann<sup>24</sup> says that he found the smaller nodular form so often that he scarcely thought it worth referring to. Hartog<sup>25</sup> finds in modern literature, apart from the cases which I have noted above, only nine cases, and he adds one of his own in which the complete necropsy is reported.

*Diagnosis.*—The diagnosis was made but once during life, and then only some cardiac lesion was suspected, but not its exact nature. At the necropsy, or, should the diagnosis of tuberculous tumour become possible, in life, only a gumma could be mistaken for a large cheesy mass. In the smaller nodular form accompanying general miliary tuberculosis careful investigation at the necropsy and careful staining will furnish sufficient evidence. If the large cheesy mass is present, this usually accompanies general tuberculosis elsewhere in the body, mostly in the lungs, often in the bones (vertebræ) and joints, commonly in the glands. Here the presence of the general tuberculosis would make the diagnosis as to the nature of the cheesy mass quite easy.

*Age and sex.*—Infants generally furnish the miliary form already referred to. All ages may be affected. Old age furnishes the larger number of cases of cheesy nodules. Data are insufficient for the determination of the influence of sex, though the male sex predominates in the cases noted.

*The favourite seat.*—While the favourite seat in acute general miliary tuberculosis is the conus arteriosus of the right side, the great papillary muscle, and less frequently the endocardium of the ventricles, it is different in the small nodular form, which is not general, in which the ventricles are the favourite seat, and different again in the larger masses (caseous form), in which the auricles or the junction of auricles and ventricles and the ventricles (often near the septum) are the seat of predilection. At

<sup>10</sup> Del'Endocardite Aiguë dans la Granule. Lyon Médical. Tome xix., 1875, p. 1218.

<sup>11</sup> Wiener Medicinische Wochenschrift, 1883.

<sup>12</sup> L'Abelle Médicale, No. 51, 1884.

<sup>13</sup> Centralblatt für Bacteriologie, Jan. 1st, 1887, Band i., No. 10, p. 30.

<sup>14</sup> Archiv für Pathologische Anatomie und Physiologie, Band lxxvii.

<sup>15</sup> Essai sur la Nature des Endocardites Infectieuses, Paris, 1890. Steinhell.

<sup>16</sup> Krankheiten des Herzens, Berlin, 1816, 1. Theil, p. 300.

<sup>17</sup> Über Krankheiten des Herzens und Gefässe, translation of G. Krupp, Leipzig, 1844, p. 231, § 599.

<sup>18</sup> Handbuch der Speciellen Pathologie und Therapie, Erlangen, 1867. Krankheiten des Herzens, p. 193, par. 7.

<sup>19</sup> Dublin Journal of the Medical Sciences, 1832, Band i.

<sup>20</sup> Dissertation, Tubercle of Myocardium, 1901.

<sup>21</sup> Deutsche Medicinische Wochenschrift, 1883, No. 24.

<sup>22</sup> Dissertation, Tuberculosis Myocarditidis, Breslau, 1865.

<sup>23</sup> Zeitschrift für Klinische Medizin, "Über Tuberkulose des Herzmuskels," Band xxi.

<sup>24</sup> Berliner Klinische Wochenschrift, 1897, No. 31.

<sup>25</sup> Loc. cit.

times, in cases in which pericarditis co-exists, the tumour may have gone by contiguity over to the myocardium and thus be seated anywhere.

*The mode of infection.*—The blood-vessels are most probably the main avenues of infection. The large percentage of cases in which tuberculous nodules are found in the myocardium in connexion with acute general miliary tuberculosis, and in which the blood-vessels are the avenues of infection, would certainly lead us to infer the same avenue in the less frequent cases. Again, the fact that the two varieties occur in different situations, or because in the one case we deal with minute, almost invisible, tumours, is no argument against the probable identical source of infection in all.

*Clinical history.*—Although two cases gave rise to indefinite local symptoms, no clinical picture worthy of attention can yet be adduced.

#### TUBERCULOUS PERICARDITIS.

The incentive to this paper was largely given by an interesting case of this kind seen by me some years ago. Fortunately, a still clearer and more beautiful specimen was placed at my disposal by Professor Bostroem of Giessen, to whose kind assistance I am indebted for the opportunity of studying a magnificently preserved specimen of which I append an account. A second case, the history of which is also briefly told below, is of importance as supporting a now generally accepted view as to the origin of the infection in tuberculous pericarditis.

**CASE 1.**—A man, 36 years of age, entered the surgical clinic at Giessen for a right-sided empyema. Nothing pointed to cardiac involvement during life, and beyond probable large heart area (presumably recognised) no suspicion of tuberculosis was entertained. At the necropsy the pericardial sac was enormously distended. The distended sac was 24 centimetres broad and 20 centimetres long. The outer parietal pericardial sac was covered with numerous grey miliary nodules which extended and covered a limited portion of the right pleura. The sac contained considerable thick bloody fluid—one and a half litres were emptied. The visceral pericardium was completely covered with a series of layers of greyish cheesy nodules, of fibrous tissue, mixed with serum and pus, and partly formed fibrinous layers. The whole formed a firm mass which was firmly adherent to the heart. The most striking feature was the layer of cheesy nodules, one millimetre in diameter, which was next to the heart muscle and formed a clearly distinguishable layer. Over this lay a layer, one centimetre in thickness, of young tuberculous granulation tissue, and upon this came the layer of fibrine mixed with sero-pus and blood. The right side, in the region of the fourth, fifth, and sixth ribs, was the seat of a sharply localised tuberculous sacculated empyema. The lung and the spleen contained a few tubercles. The tracheal and bronchial glands were enlarged and cheesy and the seat of anthracosis (the man was a miner). There is no doubt that the cheesy bronchial and tracheal glands were the starting points of the pericarditis, and that the latter had been excited by extension of the tuberculous glandular tissue.

**CASE 2.**—This was a case of tuberculous adhesive pericarditis. The patient, a woman, 68 years old, died from marasmus. At the necropsy atrophy and anemia of nearly all organs were found. The lungs were free from tuberculosis save for a few small old fibrous nodules. In no other organs was any tuberculosis found save in the following. The heart sac was totally adherent, and between the heart surface and the adherent pericardial wall greyish-yellowish tuberculous nodules covered the entire surface of the heart. The heart was atrophied. The cervical glands and the bronchial glands at the tracheal bifurcation were the seat of tuberculous cheesy degeneration which had destroyed much of the gland tissue. The gland tissue was pigmented. The tuberculous pericarditis was the sequence of the penetration of the cheesy degenerated bronchial glands into the pericardial sac which was adherent to the heart by tuberculous pigmented tissue.

*Etiology.*—While spontaneous tuberculous pericarditis is not denied as a possibility, its probability is considered more than doubtful. The more thorough the investigation of a given case the fewer will be the idiopathic cases and the greater the number of cases in which some preceding infection will be found. Zenker<sup>26</sup> years ago pointed out the fact that in 54 cases of oesophageal ulcers caused by diseased

lymph glands, 10 cases of pericardial adhesion were found. In 1879 he confirmed the relation between diseased mediastinal and bronchial glands and the pericarditis. Kast reports a case of Zahn's of purulent pericarditis with perforation of cheesy bronchial glands into the pericardial sac. Weigert<sup>27</sup> has also called attention to the fact that the serous membranes generally when infected with tuberculosis acquire the disease by contiguity from a neighbouring organ. Special attention is called not so much to the bronchial glands as to the set of small mediastinal glands seated below the bifurcation of the trachea, and above the place of folding over of the pericardial sac as the source of irritation of the tuberculous pericarditis. These glands first become tuberculous and then invade the pericardium by extension. Kast quotes cases of Bäumlér and Schottelius, confirming this mode of infection.

*Age and sex.*—Nothing is characteristic in tuberculous pericarditis as to age and sex, except that even old persons may have this form of pericarditis.

*Form.*—The usual characteristics of tuberculous pericarditis are too well known to require repetition here. As an unusual phenomenon we find the arrangement of cheesy nodules in a complete enveloping layer, as evidenced in Case 1 referred to by me. An additional interesting form is the pigmentation in Case 2.

*Clinical history.*—While a large number of cases of tuberculous pericarditis are recognised during life, they are rarely, if ever, of the class of which we speak here. The possibility that even in advanced life, if ever cheesy glands have existed, such a sequence is possible, should be borne in mind.

*Staining methods.*—Wechsberg<sup>28</sup> gives two excellent staining methods which he used in the laboratory of Weigert and in that of Ehrlich. In his second method he succeeded with a general tissue stain, including cell nuclei and protoplasm, connective tissue and elastic fibres, without clouding the bacillus stain in the least. It must be remembered that Wechsberg worked with the very fresh comparatively delicate tissues of recently-killed infected rabbits. For fixing and hardening alcohol was generally employed, only the eyes were hardened for one or two days in 10 per cent. of formal. Some preparations were fixed in Flemming's solution and coloured with safranin to make the proliferating nuclear appearances more distinct. The tissues were subsequently imbedded in the usual manner, partly in celloidin and partly in paraffin. The staining methods were as follows:—(A.) 1. Section staining for one hour at 37° C. in thermostat in carbol-fuchsin. 2. Differentiation in muriated and 70 per cent. alcohol (1 and 2 were bacilli stains). 3. Staining with Delafield and van Gieson hæmatoxylin in usual manner (van Gieson). 4. Absolute alcohol, xylol, and balsam. In such sections the bacilli were dark red, the cell nuclei blue or blue-violet, the cell-protoplasm yellowish-brown, the connective tissue pale red. (B.) 1. Staining of sections for an hour at 37° in carbol-fuchsin. 2. Differentiation in muriated and 70 per cent. alcohol (1 and 2 bacilli were stains). 3. Section staining for one hour in Weigert's solution for colouring elastic fibres. 4. Rinsing in 96 per cent. alcohol (3 and 4 were elastic fibre stains). 5. After colouring in lithium carmine and washing with muriated alcohol (for contrasting colouration, nuclei and protoplasm colouring). 6. Absolute alcohol, xylol, and balsam. In these preparations the bacilli were dark red with a tinge of violet; the elastic fibres were dark blue; the remaining tissues of the contrasting colouration were light red with more darkly-stained nuclei. Care must be taken not to make the lithium carmine staining too intense; the red bacilli staining was always clearly recognisable against the violet-tinted red ground-work. Hartog<sup>29</sup> mentions the following process applied to a large tumour mass of tuberculous tissue from the human subject. A piece was hardened in 10 per cent. formal, then placed in 96 per cent. alcohol, and finally in absolute alcohol. The pieces were then put in alcohol-ether and imbedded in celloidin. Sections of 0.015 millimetre thickness were then stained after the von Gieson method. Finally coloured with the Weigert stain for elastic fibres.

Bad Nauheim.

<sup>27</sup> Deutsche Medicinische Wochenschrift, 1882. Virchow's Archiv, 96.

<sup>28</sup> Loc. cit.

<sup>29</sup> Loc. cit.

<sup>26</sup> Zenker and von Ziemssen: Krankheiten des Oesophagus, von Ziemssen's Cyclopædie, Band vii.

THE dog-muzzling orders for the counties of Breconshire, Glamorganshire, and Carmarthenshire have been revoked.

## THE DETENTION OF LUNATICS IN WORKHOUSES.

By SYDNEY DAVEY, B.A., LL.B.,  
BARRISTER-AT-LAW.

THERE has for some time past existed in the minds of the medical officers of workhouses considerable doubt as to the true interpretation of those sections of the Lunacy Acts which relate to the detention of lunatics in those institutions. The opinion of the Law Officers of the Crown has recently been taken by the Commissioners in Lunacy on the more important questions that have arisen, and there is no doubt that their opinion is contrary in many respects to that which has generally prevailed hitherto. It is therefore of the greatest concern to medical officers of workhouses that they should thoroughly appreciate the opinion of the Law Officers, more particularly as the matter is one that touches the liberty of the subject and is accordingly jealously regarded by the law.

Now, the most important question, perhaps, that has arisen is as to the effect of Sub-section 1 of Section 21 of the Lunacy Act, 1890, which provides that:—

In any case where a summary reception order might be made, any justice, if satisfied that it is expedient for the welfare of the lunatic, or for the public safety, that the lunatic should forthwith be placed under care and control, and if it appears to him that there is proper accommodation for the lunatic in the workhouse of the union in which the lunatic is, may make an order for taking the lunatic to and receiving him in that workhouse.

It has been a very common practice during the past few years for an order to be made under this sub-section, which authorises the detention of the lunatic in the workhouse for not more than 14 days, irrespectively of the fact whether the lunatic at the time of making the order is in the workhouse or not. The advantage of adopting this course is to give the workhouse authorities a longer time for watching the lunatic and so determining what may best be done with him. And, too, when the insanity proves of a very temporary character so that a short confinement is sufficient, the expenses of conveying a lunatic to an asylum under a summary reception order may be saved. But the opinion of the Law Officers is that an order cannot be made under Sub-section 1 of Section 21 in respect of a lunatic already in the workhouse. This view applies to a lunatic who has been removed to the workhouse by a constable, relieving officer, or overseer under Section 20 of the Act, and to a pauper inmate who has become insane during his residence in the workhouse, or who has, as a lunatic, ceased to be a proper person to be detained in the workhouse. In all these cases, accordingly, when the lunatic is brought before the justice, the justice must make his examination then and there; and, although he may find it necessary to adjourn the examination, he cannot issue an order under Sub-section 1 of Section 21.

Where, however, a justice makes an order with respect to a lunatic under Sub-section 1 of Section 21—this order, as it is said, being applicable only to the case of a lunatic not already in the workhouse—the lunatic may be detained for a further period of 14 days under a certificate of the medical officer of the workhouse made in accordance with Section 24 of the Act. A certificate under this section must certify: (a) that the person detained is a lunatic, with the grounds for the opinion; (b) that he is a proper person to be allowed to remain in a workhouse as a lunatic; and (c) that the accommodation in the workhouse is sufficient for his proper care and treatment separately from the inmates of the workhouse who are not lunatics, unless the medical officer certifies that the lunatic's condition is such that it is not necessary for the convenience of the lunatic or of the other inmates that he should be kept separate. (The medical superintendent of an asylum provided for the reception and relief of the insane under the Metropolitan Poor Act, 1867, is not required to certify to the effect in (c), although such asylums are in general subject to the Lunacy Acts.) Then, unless an order commonly known as a "permanent detention order" has been obtained from a justice under Sub-section 4 of Section 24 for the detention of the lunatic in the workhouse beyond the period of 14 days during which the certificate of the medical officer remains in force, the medical officer must at the expiration of the 14 days "give notice in writing to the relieving officer of the union to which the workhouse belongs," and "thereupon the like proceedings must be taken by the relieving officer and all other persons for the purpose of removing the lunatic

to an asylum, and within the same time, as by the Act provided in the case of a pauper deemed to be a lunatic and a proper person to be sent to an asylum, and, pending such proceedings, the lunatic may be detained in the workhouse." (Section 24, Sub-section 6.)

Sub-section 2 of Section 21 of the Lunacy Act, 1890, provides that "in any case where a summary reception order has been made an order under this section may be made for the detention of the lunatic until he can be removed." The Law Officers answer negatively the question—Can a lunatic who has been taken to and detained in a workhouse under Section 20, Sub-section 1, be further continuously detained for another period of 14 days under Sub-section 2 if a justice makes an order on the last day of the first period of 14 days for the removal of the lunatic to an asylum and then makes an order under Sub-section 2 directing the detention of the lunatic in the workhouse pending removal to the asylum? Here, too, the opinion of the Law Officers is at variance with the practice which has hitherto been very common of making orders with respect to the same lunatic under both Sub-section 1 and Sub-section 2 of Section 21. Again, the Law Officers are of opinion that a lunatic detained in a workhouse for 14 days by an order under Sub-section 2 of Section 21 may be further continuously detained for another period of 14 days under a certificate given by the medical officer of the workhouse under Section 24.

Finally, when a lunatic is in a workhouse, if the medical officer does not sign a certificate under Section 24; or if at or before the expiration of 14 days from the date of the certificate an order is not made by a justice for the detention of the lunatic in the workhouse; or if after such an order has been made the lunatic ceases to be a proper person to be detained in a workhouse, pending the proceedings that are required to be taken under Sub-section 6 of Section 24, the Law Officers are of opinion that the lunatic may be detained for the following consecutive periods: (a) for the three days within which the relieving officer must, under Section 14, give notice to a justice that a person resident in his district is deemed to be a lunatic; (b) for the further period of three days which may elapse before the alleged lunatic is brought before a justice; and (c) after a summary reception order has been made for a further period of 14 days under Sub-section 2 of Section 21 pending the removal of the lunatic to the asylum.

Pump-court, E.C.

## THE PREVENTION AND CURE OF PHTHISIS.

By GODFREY W. HAMBLETON, L.K.Q.C.P. IREL.

THE object of this paper is to give a brief outline of a practical and effective system of prevention and cure of phthisis and to advocate its general adoption.

We are, I think, agreed that phthisis is due to a toxin, but we differ as to its source of origin. The view generally accepted is that the toxin is directly or indirectly produced by the bacillus tuberculosis. My experiments and observations, commenced in 1873, have proved to me that it is a natural product, normally present in, and eliminated from, the body, and that its accumulation in the system is produced by an inadequate respiratory surface of the lungs not compensated for by the supplementary vicarious action of other organs, due to certain definite physical conditions—viz., those that directly or indirectly tend to reduce the breathing capacity. The difference between these views is of cardinal importance. In the former case I have yet to hear of any satisfactory practical result, directly due thereto, either in prevention or treatment, and that was, I knew, inevitable. But in the latter we stand on firm ground, for we have definite attainable objects and know the means by which we can obtain them.

The object to be attained in the prevention of phthisis is to secure the complete elimination of the toxin by the lungs by having an extent of respiratory surface adequate, not only to perform their ordinary functions, but also to meet within certain limits any extra demands that may be made upon them. A chest girth of, or nearly approaching to, Brent's medium standard—it corresponds very closely with Allen's tables for first-class life assurance—a range of movement of four inches, and a vital capacity exceeding Hutchinson's standard, indicate its presence. I have shown that the size and shape of the thorax depend upon the conditions to

which they are subjected. To develop the thorax we must avoid as far as possible those conditions of our habits, mode of life, and surroundings that tend to reduce the breathing capacity—the phthisisgenic conditions—and where they are unavoidable we must ascertain their amount and counteract their effects by the adequate introduction of conditions that tend to develop the breathing capacity—the non-phthisisgenic conditions—so that the tendency of the whole is markedly to develop the thorax.

In 1888 the Polytechnic Physical Development Society was formed to give a practical demonstration of the prevention of phthisis by adequate development of the lungs. Over 50 different trades and occupations were represented in the society. There were clerks, compositors, printers, watch-makers, carpenters, engineers, drapers, tailors, warehousemen, &c., who were engaged therein from eight to 12 and 14 hours daily. The average increase of the chest girth of 100 members was 2 inches, that of the first class was 3½ inches. Increases of 4½, 5, and 6½ inches have been recorded. The average range of mobility was about 4½ inches and a mobility of from 5 to 6 inches and upwards was frequently observed. Hutchinson's standard of vital capacity was considerably exceeded—an excess of 100 cubic inches and upwards has been noted—and in respiratory power the majority belonged to or exceeded his "remarkable" and "very extraordinary" classes. Brent's medium standard had been exceeded by 3.32, 3.42, and 3.67 inches, and many members had attained it. Now, that standard is 5.40 inches above the average of the artisan class and 3.17 inches above that of the most favoured class. The society has therefore shown that the conditions to which its members were subjected were so arranged that their tendency as a whole was to develop markedly the lungs, and it has proved the prevention of phthisis in the case of many members who were threatened with an early attack of the disease.

The objects to be attained in the treatment of phthisis are to eliminate the toxin and prevent its further accumulation and to develop the lungs to an adequate extent. A great step in the right direction has been taken by the open-air system of treatment, for it does cause an elimination of the toxin, but only passively and to a too limited amount. We must actively eliminate the toxin and prevent its further accumulation by increasing the functional activity of the skin, kidneys, and alimentary canal, by baths or by sponging the whole body, and by the use of diaphoretics, diuretics, and saline aperients. The amount of this vicarious action and the organs to be selected depend upon the extent of the disease and the state of the patient. In the early stage I have found the prescription of two baths daily and three doses of an alkaline mixture containing diaphoretics and diuretics, with a saline aperient in the morning and later tonics, amply sufficient.

I need not say that great care must be taken to secure good personal and general hygienic conditions for the patient. His food must be good and the appetite must be cultivated—not forced. He must spend as much time as possible in passive and, as soon as he is able, active exercise in the open air. No attempt must be made actively to develop the lungs until the disease has been some time arrested, then active measures may be gradually adopted and progressively increased, care being taken to avoid either strain or over-exertion until the full development of the lungs has been obtained.

By this system of treatment in the early stage the chest symptoms are immediately relieved, cough and expectoration disappear, the area of breathing, vital capacity, chest girth, and mobility increase, the temperature tends to normal, weight increases, the general state improves, and there is the appearance of a certain amount of health and strength. This is followed by complete arrest of the disease, the absence of all symptoms, an increasing area of breathing capacity, normal temperature, fair weight, good general health, and ultimately by complete recovery. There has so far been no failure in that stage and, except for error in diagnosis or treatment, all such cases ought to recover. By complete recovery I mean the possession of an adequate respiratory surface and sound health.

I have applied the treatment in over 50 cases and in all stages of the disease. Of these 10 patients have died, nine are reported well, and 16 have completely recovered—their average chest girth being (males) 37½ inches, expansion four and a half inches—an increase of two and three-quarter inches and two and a half inches respectively. The recoveries have been verified by post-mortem evidence, by acceptance for first-class life assurance in two cases, by the

number of years that have since passed in others (from two to 15 years), and I recovered in 1876.

York-street, W.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORCAESI De Sed. et Caus. Morb., lib. iv., Proœmium.

### MAUD HOSPITAL, EXMOUTH.

#### A CASE OF PAROTITIS FOLLOWING AN OPERATION FOR APPENDICITIS.

(Under the care of Dr. R. STANLEY THOMAS.)

THE connexion between inflammation of the parotid gland and abdominal disease or operation has been recognised for many years and the abscess which generally formed was looked upon as pyæmic. It was shown by Mr. Stephen Paget that this explanation would not suffice, as in the majority of the cases in which it occurred abdominal disease was present. The chief argument against this parotitis being pyæmic in origin is the fact that it is extremely rare for any other manifestation of pyæmia to be present. Mr. A. Quarry Silcock has offered a very probable explanation of the occurrence of a parotid bubo, as this parotitis is unwisely called.<sup>1</sup> He suggests that in most of these cases very little food is taken and the mouth becomes dry and septic and that micro-organisms spread along the duct of Stenson. In favour of this theory is the fact that parotitis is by no means rare after typhoid fever.

A young woman, aged 22 years, whose occupation was that of a general servant, was taken ill suddenly with severe pain in the abdomen at 11.30 A.M. on Oct. 20th, 1901. When seen at 3 P.M. she had great pain which was referred to the region of the umbilicus, with very marked tenderness in the right iliac region. The percussion note was resonant over the whole of the abdomen, but there was distinct resistance in the right iliac region. The temperature was 102° F. and the pulse was 120. The girl had had two similar attacks—one in October, 1900, and one in June last. Both attacks came on suddenly and were accompanied by pain and sickness, and in both instances she was laid up for five weeks.

The patient was removed to the Maud Hospital, Exmouth. Hot fomentations were applied to the abdomen and she was given a pill of a quarter of a grain of extract of opium with a quarter of a grain of extract of belladonna every four hours and a liquid diet. On Oct. 21st she was in much the same condition, being in considerable pain and frequently sick. On the 22nd she was apparently much worse and could keep nothing down. The temperature was 100.4° and the pulse was 120. At 3.30 P.M. she was operated on, the A.C.E. mixture being given by Mr. O. Eaton and Mr. R. Martyn kindly assisting Dr. Thomas. The appendix was found with its apex firmly adherent to the brim of the pelvis; owing to the great distension of the bowels with gas it was difficult to reach, but it was, by means of an aneurysm needle, ligatured in two places and then divided. As nothing else was found the abdomen was closed. At 7 P.M. the temperature was 97.8° and the pulse was 100. The patient was free from pain and quite comfortable. The bowels acted after an enema on the second day. Parotitis developed on the sixth day on the right side and was extremely painful, persisting for 10 days. On the nineteenth day there was slight suppuration of the superficial stitch holes. Except for this the patient made an uninterrupted recovery and left the hospital at the end of six weeks.

*Remarks by Dr. THOMAS.*—In this case the inflammation of the parotid gland occurred on the sixth day after operation for an adherent appendix. There was no sepsis to account for it, although there was some suppuration of the stitch holes 19 days after the operation which could not be accounted for. The parotitis lasted 10 days, during which time the temperature kept between 100° and 101°; it subsided without suppuration.

<sup>1</sup> THE LANCET, 1899, March 25th, p. 832.

## Medical Societies.

### HUNTERIAN SOCIETY.

#### *Discussion on Small-pox and Vaccination.*<sup>1</sup>

A SPECIAL meeting of this society was held on Nov. 13th, Dr. DUNDAS GRANT, the President, being in the chair.

Dr. J. MACCOMBIE read a paper upon the Differential Diagnosis of Small-pox which will be found fully reported at p. 1785.

Dr. MACCOMBIE also read a communication upon Vaccination. He said: With the ethical aspect of vaccination I do not intend to deal. My observations are based solely upon small-pox hospital statistics and my own hospital experience. The hospital case-mortality in unvaccinated small-pox patients is about 45 or 50 per cent., in vaccinated patients it is about 8 per cent. The severity of an attack of small-pox in vaccinated subjects bears, as a rule, a distinct relationship to the quality of the vaccination scars. The basis on which most of the small-pox hospital statistics in London were compiled in the past was the number and quality of vaccination marks. On this basis the case-mortality per cent. in 11,724 cases of small-pox in vaccinated subjects treated in the Asylums Board Hospitals was as follows:—

	Per cent.		Per cent.
One good mark ... ..	6.4	One indifferent mark ...	16.7
Two .. marks ... ..	3.7	Two .. marks... ..	11.2
Three .. ..	3.7	Three .. ..	7.4
Four or more good marks...	2.7	Four or more indifferent marks ... ..	4.8

The case-mortality is therefore inversely proportioned to the number + quality of marks, ranging from 16.7 per cent. in those showing one indifferent mark to 4.8 per cent. in those showing four or more indifferent marks, while in those showing good marks the case-mortality ranges from 6.4 per cent. in those showing one good mark to 2.7 per cent. in those showing four or more good marks. When I was treating small-pox at the South-Eastern Hospital it appeared to me to be desirable to obtain some statistics of small-pox based on the actual area of vaccination surface, regard being had also to foveation. With this in view I measured the extent of vaccination scar-surface in 5808 consecutive cases of small-pox. At that time the Local Government Board standard of efficient vaccination was not less than one-third of a square inch of well-foveated surface. I adopted that as my standard. All patients showing imperfectly-foveated surface, no matter how great the area, were regarded as inefficiently vaccinated. The results were as follows:—

	No. of cases.	No. of deaths.	Mortality per cent..
Efficiently vaccinated ...	1435	36	2.7
Inefficiently vaccinated ...	4373	378	8.7

These figures appear to me to show the solid advantage of extent of vaccination scar-surface + quality of surface in lessening the fatality of small-pox. During the years that I was in charge of a large small-pox hospital the protection afforded to the officers, nurses, and servants against small-pox by vaccination and revaccination was remarkable. A very large number were employed. Two only contracted small-pox, one nurse and one ward-maid. The nurse was a determined anti-vaccinationist, as I found out afterwards. During the pressure of work she somehow escaped revaccination. She had a mild attack of unmodified small-pox. The ward-maid had been revaccinated by me three times unsuccessfully. She had a very mild attack of modified small-pox. Indeed, had it not been for the protection afforded by vaccination and revaccination against small-pox it would have been impossible then, as it would be impossible now, to obtain nurses and others for small-pox hospitals. Small-pox does, however, occur in a very few persons who show scars of successful revaccination. Though none of my staff whose re-

vaccination had been successful contracted the disease I have had under my care patients who showed scars of successful revaccination, but I have not seen small-pox in a person who had been efficiently vaccinated—i.e., who showed one-third or more of well-foveated primary vaccination surface and who showed also marks of revaccination. Even an attack of small-pox does not in some rare instances protect against a second attack.

Dr. MAJOR GREENWOOD read a paper upon the Present Aspect of Small-pox and Vaccination, making special allusion to Dr. Creighton's article in the Encyclopædia Britannica. Three indictments were made against the author of this article: (1) the facts which he reported by no means necessarily supported his deductions; (2) he enlarged upon those facts which seemed to tell against vaccination and dismissed briefly those seeming to favour it; and (3) different facts standing on vastly different bases were treated as of equal value. Dr. Greenwood then showed the looseness of the evidence upon which Dr. Creighton founded his conclusion, especially that certain diseases, including jaundice, were caused by vaccination. Dr. Creighton appeared to believe that syphilis was originated *de novo* from cow-pox. He had attributed the decrease of small-pox to a change in the type of the disease, but this cause, if it existed, would scarcely explain the great diminution of small-pox in children compared with that in the general population. Dr. Creighton alleged that there was no diminution in mortality amongst small-pox patients, as this, according to statistics, was the same in the eighteenth century as at the end of the nineteenth—viz., 18 per cent. It was, however, contended by Dr. Greenwood that statistics as to the mortality from small-pox compiled during one of the old epidemics would be quite untrustworthy. The Conscience Clause had caused the law to be treated with contempt and it amounted practically to a repeal of the vaccination laws. Experience gained since the passing of the last Vaccination Act taught the following lessons. 1. That it was no good throwing sop to the anti-vaccinationist—he intended war to the knife with vaccination in any form. 2. That boards of guardians ought to have nothing to do with the administration of vaccination laws. If those laws were entrusted to any local authority it should be to the borough council, to the health department of which it naturally belonged, but it would be better still to put it under the control of some central authority not likely to be influenced by local prejudice. 3. That the vaccination officer ought to be free from the control of any local authority and answerable only to the Local Government Board or the central vaccination authority, whose inspectors ought to report periodically how his duties were being carried out. 4. That they had in vaccination as now practised a protective inoculation against small-pox as powerful and trustworthy as was that introduced by Lady Mary Wortley Montagu, and without any of its dangers to the patient or risk of spreading the disease to others. 5. That experience taught that to be efficient the area of vaccination must be not less than half a square inch; that revaccination in adult life was always necessary; that in some cases vaccination at intervals of 10 years might be required to give adequate protection; and that the so-called "one spot" vaccination was greatly to be condemned. 6. That an efficiently vaccinated person rarely, if ever, contracted small-pox however much he might be exposed to infection. 7. That when vaccination was performed with antiseptic precautions and with suitable calf-lymph the danger of introducing other diseases was practically nil. 8. That no general sanitary measures could take the place of vaccination as a protective against small-pox. 9. That compulsory vaccination of the infant community was most desirable, and that it was the duty of the medical profession to lose no opportunity of pressing this fact both on the public and on the Legislature.

Dr. W. ARTHUR BOND, medical officer of health of Holborn, submitted a communication upon vaccination. He said that it was the general experience that nurses and the staffs of small-pox hospitals might with almost complete impunity be much exposed to infection provided they were efficiently revaccinated. In the Metropolitan Asylums Board Hospitals there had been no case of small-pox during the past seven years, 1894-1900 inclusive. Also in the previous 10 years there had been no case, the apparent exceptions being persons who were attacked before successful revaccination had been effected. During the 35 years preceding 1871 there had been no case of small-pox among the nurses and servants of the Highgate Small-pox Hospital. Since then the only case had

<sup>1</sup> Our report of this debate has been unavoidably delayed. The matter, however, is as interesting now as it would have been a month ago.—ED. L.

been that of a gardener who had not been revaccinated. So that there was a record of nearly 60 years, with the one apparent exception just mentioned. Other small-pox hospitals gave similar results. The fatality of small-pox amongst the vaccinated was much less than it was amongst the unvaccinated. In London during the past 10 years (1891 to 1900) of the vaccinated of all ages the percentage of deaths of those attacked was 3.1; of the unvaccinated it was 18.8. Even if all the doubtful cases that had no evidence of vaccination and the majority of which were most probably unvaccinated were included amongst the vaccinated the percentage of deaths was only 4.8, against 18.8 amongst the unvaccinated. In Leicester of 198 vaccinated persons of all ages who were attacked the only death was that of a hospital laundress, aged 45 years, an intemperate woman who refused revaccination and showed two marks of vaccination in infancy. Of 154 unvaccinated persons 19 died, or a mortality of 12.3 per cent. If the age-period under 10 years of age were taken, when vaccination had greater protective power, the contrast of the fatality amongst the vaccinated and unvaccinated was still more striking. [As bearing upon this part of his subject Dr. Bond submitted the following table.]

*Vaccination Statistics of some Large Towns.*

	Total number of cases of small-pox.	Under 10 years of age.					
		Vaccinated.			Unvaccinated.		
		No.	Number of deaths.	Death-rate.	No.	Number of Deaths.	Death-rate.
London, 1891-1900 ...	5,166	125	—	—	672	153	22.8
Leicester, 1892-1893 ...	357	2	—	—	107	15	14.0
Sheffield, 1887-1888 ...	4,703	353	6	1.7	228	100	43.9
Dewsbury Union, 1891-1892 ...	1,029	44	1	2.2	174	56	32.1
Warrington, 1892-1893...	667	33	2	6.0	32	12	37.5
Gloucester, 1895-1896 ...	1,979	26	1	3.8	680	279	41.0
Manchester, 1892-1893 ...	805	11	—	—	36	7	19.4
Oldham, 1892-1893 ...	124	3	—	—	15	5	33.3
Leeds, 1892-1893 ...	200	4	—	—	8	3	37.5
Halifax, 1892-1893 ...	330	4	—	—	38	15	39.5
Bradford, 1893 ...	658	17	—	—	57	23	40.3
Totals ...	16,018	622	10	1.6	2,047	668	32.6

In these statistics the vaccinated included all that had any evidence of vaccination, good, bad, and indifferent, and some in which there was no good reason for believing that they had been vaccinated at all. The statistics of these epidemics of small-pox also showed that the attack-rate amongst the vaccinated was very much less than it was amongst the unvaccinated, also that the type of the disease was much less severe amongst the vaccinated. The statistics which Mr. Marson had given of nearly 14,000 cases of small-pox, and those of many thousands of cases by other observers, showed that four or more vaccination marks afforded much greater protection than only one mark, and the fatality amongst those with only one mark was much less than it was amongst the unvaccinated. Statistics of various observers had shown that there was superior protection according as the area of the vaccination marks was larger. It might therefore be stated as a general law—The better the vaccination the greater the protection against small-pox and mortality from that disease. Touching the value of revaccination Dr. Bond put forward the following statistical facts. Concerning the London postal service, in the period from 1870 to 1880 inclusive, and embracing the time of the epidemic of 1871, only 10 slight cases of small-pox occurred, not one of them being fatal (average, 10.504). In Sheffield and Warrington in the postal service and the police force there had been no attack among the revaccinated. Since 1874, when revaccination became compulsory throughout Germany, there had been very few deaths from small-pox. In the army no death from that disease had occurred.

Dr. BOND, in opening the discussion upon the subject before the society, remarked that erythema multiforme was a disease very likely to be mistaken for small-pox under certain conditions. He saw one case two years ago about which he was very doubtful; he did not think that it was a case of small-pox, but thought that it ought to be seen by an expert on small-pox, and as the case was that of a poor patient the sufferer was removed to the wharf and he was not surprised to find that the patient was sent back. In these cases fever and eruption on the pharynx and palate were often met with, and in some cases the eruption was very similar to that of small-pox, and the above no doubt was a case of erythema multiforme. Of course, as had been mentioned by Dr. MacCombie, the disease which was most often mistaken for small-pox was chicken-pox. He was very glad to have had the privilege of hearing Dr. MacCombie's paper and also Dr. Greenwood's.

Dr. RICHARDS, medical officer of health of Finsbury, said that they had had altogether in Finsbury 44 cases of small-pox in the present epidemic, nearly all of which had arisen from two groups—those which were at first mistaken for chicken-pox and those which were not. Out of the 44 cases there were 12 unvaccinated patients, three of whom died, and 32 had only been vaccinated in infancy, and not a single case had occurred in which the patient had been revaccinated. He asked whether Dr. MacCombie would have considered the following case to be one of small-pox. He had had a case notified from a house, and in that house there had been about a fortnight before a girl who had presented all the initial characters of small-pox but no rash at all. She said that she had a cold and nothing further happened, but the sister who slept with her had come out in unmistakable small-pox. He presumed that the former was a case of small-pox without the rash.

Mr. ST. GEORGE CALDFIELD REID, medical officer of health of Croydon, showed some photographs of cases of small-pox made by Mr. Marriott, the medical officer of Leicester, during the year of the epidemic of small-pox in Birmingham. He mentioned the difficulties there were for procuring lymph that was absolutely above suspicion. Personally he thought that it was a very great mistake that the Local Government Board did not provide both medical officers of health and general practitioners with Government lymph. He thought that they should be very careful not to exaggerate the power of primary vaccination; a great deal of harm had been done by the popular idea that primary vaccination was enough for the rest of life. He would like to know from some of the members present what rules they enforced for revaccination, his rule as to the hospital staff being two years, and as to the general public 10 years.

Dr. G. NEWTON PITT said that some few years ago he was asked to see a case in which the patient had two spots and to decide as to whether it was a case of small-pox, and he would like to ask Dr. MacCombie's opinion about it. In this particular case the patient had a spot on the face and a spot just below the chin. He was called in by a practitioner who had had a very large experience of small-pox, whereas his experience was extremely small. He said that in such a doubtful case the best thing was to get one of the authorities from the small-pox ship. He did not know what was the final conclusion, but the question was that if there were two or three spots were they likely to be in one particular locality? Another question was that if they were limited to two spots would there almost certainly be a normal temperature?

Dr. R. K. BROWN, medical officer of health of Bermondsey, said that he did not remember whether Dr. MacCombie mentioned in his paper that the rash was more likely to come out in small-pox patients at any particular point. For instance, he had had several cases in his district of patients who had been vaccinated and who had within 24 hours developed small-pox, and he found that the rash was more likely to be prevalent at the points of the vaccination. Another question that he never could understand was what was meant by the area of the vaccination scars being half a square inch? He did not really see what point was taken to measure the scars from.

Dr. T. GLOVER LYON said that he would like to have a definite answer to the question of revaccination. He wanted to know whether two good vaccinations were enough. Just before the meeting the librarian of the institution had put into his hands two books, which he thought would be found interesting. The writer said that

in India there was a goddess of small-pox; her name was Amma, which meant "mother." She was a great and benign goddess who showed her anger by producing small-pox. The librarian had been a magistrate in India and had often had before him people with small-pox giving evidence in a court of law.

A VISITOR said that he had been rather astonished that so many people should be glad to hear a discussion on small-pox and vaccination when they came to consider that in Germany small-pox did not trouble them nowadays; it was, practically speaking, wiped out. By taking the statistics as they occurred from year to year it would be found that as a rule in Prussia itself the cases of small-pox nearly always occurred on the frontier. He thought that there was scarcely ever a death from small-pox in the army nowadays, at all events in the Prussian army; vaccination, however, really was compulsory before two years of age, after 12 years of age, and for a soldier when he joined the army.

The PRESIDENT said that in the early part of his practice in London he had of course come in contact with small-pox. He remembered that one of his very earliest experiences was being called into a house where were lying in bed two young men with a number of abscesses all over their bodies and apparently struggling for their lives; two others in this family had recovered and two had died. He said to the father of the patients: "This says very little for vaccination." The man replied: "I have been a very foolish man; the fact is I have always considered that my blood and my wife's blood were so pure that we would not have it mixed with any contamination whatever. The result is that I have lost two of my family, and the only member who has escaped is the little baby who has been vaccinated." On another occasion he (the President) was called in to a family of poor people who had come from the north, in which a number of the members of the family had been vaccinated and the others had not been vaccinated. The disease was practically confined to those who had not been vaccinated, and to the best of his recollection there was one death among these. These were experiences which he did not think anyone could forget or fail to be impressed by. He thought that there must be many more members of the profession who had witnessed such occurrences, and perhaps if they were published they would have some weight in helping to carry along public opinion. Another instance which he remembered very distinctly was that in Edinburgh, at a large firm of drapers, all the employés there were vaccinated with the exception of one. This was a young girl who was rather proud of her appearance and she was selected by small-pox to be disfigured for the rest of her life. He remembered in reference to prodromal rashes being thoroughly taken in by a case to which he was called by a young practitioner whose father's housekeeper had been taken ill. He found a scarlatinal rash on the trunk and he said: "Well, the symptoms are the symptoms of small-pox, but the rash is the rash of scarlet fever." He need hardly say that the rash was really the prodromal rash of small-pox. Before they went further he proposed a hearty vote of thanks to Dr. MacCombie, Dr. Greenwood, and Dr. Bond for the material which they had brought forward.

Dr. MACCOMBIE, in reply, said that erythema multiforme was not a disease that was much mis-diagnosed for small-pox at the time that he was dealing with small-pox. They had morbilliform erythemas and erythemas of shell-fish eruptions, but what struck him in all these cases was the absence of the initial symptoms of small-pox, and that was really the point on which an observer relied for the differential diagnosis of these diseases. If a doubt existed about a case the patient would be taken in and isolated for a day or two. Dr. Richards had mentioned an exceedingly interesting case of variola sine variolis—that was, small-pox without eruption. He had noticed in the cases of officers who looked after small-pox patients, that a fortnight or three weeks after they had entered on their duties some few would be laid up for a couple of days with very pronounced symptoms—headache, anorexia, and rise of temperature. This would last for two days more or less, then the temperature would fall and they would be quite well. They had the initial symptoms of small-pox without any small-pox showing itself. He had had a similar instance to that described by Dr. Richards. A patient was sent to him from somewhere in the East-end. Her temperature was normal and she felt perfectly well, but she gave a most explicit history of two days' initial symptoms of small-pox. He had learnt afterwards from the medical man

who had been attending her that the patient had had a rise of temperature and that there had been some initial rash, but there was no small-pox vesicle to be found on the skin. At the time of seeing the patient he had not had this information, but simply had her statement as to other symptoms. He could find no trace that she was then suffering from small-pox and accordingly he sent her home at once, as there was very little small-pox in London. About 14 or 16 days later, however, her sister was sent to him with undoubted small-pox, and he was inclined to think that small-pox without eruption could convey small-pox. He was very interested to hear of Dr. Richards's similar case. Mr. Reid had inquired how often it was customary to vaccinate the staff. That varied a good deal. From his observation of small-pox after revaccination it had been very evident that there were two classes—those in which small-pox occurred after revaccination with good primary marks and those with imperfect marks of vaccination. Accordingly, he had no regular rule as to revaccination of the staff. If they had good marks of primary vaccination and had been once successfully revaccinated after puberty he had let them go for years without being revaccinated again; but if they had imperfect vaccination marks, or a too small amount of primary vaccination marks, he would revaccinate them every three or four years. In his own case he had got one very bad primary mark. He had been revaccinated about 10 times and only once had it taken, and he had not been revaccinated for 15 years. Dr. Newton Pitt had mentioned a case of small-pox with two spots, one on the face and one on the chin; he did not gather whether there had been the initial symptoms of small-pox. [Dr. Newton Pitt here said that there were a premonitory rash, headache, a rise of temperature, and anorexia.] Dr. MacCombie, continuing, said that that was what might be expected in such a mild case; in a case with a considerable amount of eruption there never was any pyrexia. With only two spots it would be naturally expected that they would come on the face. He had seen one case in which the eruption was limited to four or five vesicles situated on the neck. He believed the case to be one of small-pox as it had had all the initial symptoms. Three or four spots were the fewest number that he had ever seen in a patient, but he believed the case with two spots to be a case of small-pox. Dr. Brown had spoken of cases of small-pox eruption along with recent vaccination having a crop of vesicles round the site of the injection of the vaccine. As a matter of fact it would be expected that an increased amount of small-pox eruption would be found around areas of irritation or around points where pressure had been exerted. If there were an ulcer on the leg an enormous number of small-pox vesicles would be found to be massed together there, whereas on the rest of the body the eruption might be quite discrete. Where braces pressed, at the waist in the case of a woman, or where the garter was tied, and so on, were all points of pressure at which would be found an increased amount of eruption. As to the measurement of scars, Dr. Brown had said that most vaccination marks looked of about the area of half an inch. It was surprising how deceptive to the eye the size of a vaccination scar was. Until it came to be measured the vaccination surface would appear to be much larger than it really was.

EPIDEMIOLOGICAL SOCIETY.—A meeting of this society was held on Dec. 13th, Dr. Patrick Manson, C.M.G., F.R.S., President, in the chair.—Dr. F. W. Mott, F.R.S., read a paper on Dysentery in Asylums, a disease the prevalence of which in the London county asylums, especially that at Claybury, had led to an inquiry conducted on behalf of the Board by Dr. Durham and himself, who presented their report in May, 1900. This disease, though often designated by such names as "ulcerative colitis," "zymotic diarrhoea," &c., was, in his opinion—in which he was confirmed by Dr. Manson—simply dysentery as described by every observer since Sydenham and Willis and familiar to Indian and army surgeons to-day. It was marked by a febrile onset and inflammatory lesions of the large intestine and though it was somewhat sporadic it more often occurred in outbreaks in which the old and infirm suffered most, but no age was exempt, and the attendants and officials even were occasionally attacked, while there was absolutely no difference between cases occurring among the sane and among the insane. It presented several distinct types, from severe attacks ending fatally in a few days to mild non-febrile atypical forms which if

unrecognised tended to spread the infection. The symptoms common to all, but in very various degrees and duration, were fever, tenesmus, and loose stools with blood and slime. The initial fever might persist till death or subside after a few days whether the case progressed to recovery or death. The disease might take on a chronic or intermittent character, or blood and mucus might be absent from the stools though the typical lesions of dysentery were found after death. Pneumonia and collapse were frequent causes of death, and epileptic and paralytic patients often died in a fit. In the acute inflammatory cases there was always swelling of the mucous membrane of the whole of the large and of the lower portion of the small intestine, the engorged villi giving the surface, in the early stage, the appearance of a red Turkey carpet, followed by the ashen grey of exudation and necrosis with more or less extensive ulceration; otherwise the post-mortem phenomena of the two cases were identical and all were such as might be met with in other diseases. Leucocytes abounded in the stools, but were present in the blood in normal numbers, and were for the most part polynuclear. The bacteria were of many kinds, but unless, perhaps, certain cocci, none could be considered specific, and though some might acquire a more virulent character, the bacillus coli at any rate did not play a very important part. In chronic cases the colon might become enormously dilated, even so as to be mistaken at first sight for the stomach. Dysentery was undoubtedly an infective disease, and Dr. T. Clave Shaw's hypothesis of a neurotic origin was wholly unsupported by evidence. If it were so the disease would be met with in all asylums alike, whereas patients suffering from general paralysis were not specially prone to the disease, and while no amount of degeneration of the nerve centres could *per se* cause dysentery the splanchnic nerves in severe and fatal cases were perfectly healthy. The disease was indisputably communicable from the sick to the sound, chiefly, if not solely, through the medium of the evacuations. As with other intestinal fluxes, enteric fever, and cholera, it was impossible to avoid soiling of the clothes and bedding and of the hands of attendants, and those who knew the difficulties of dealing with insane patients and their filthy habits, would understand how hard it was to prevent the spread of the disease to other occupants of the ward. The constant transfer of patients from one asylum to another contributed to the dissemination of the infection, and it could not be denied that in some instances there had been culpable negligence and irregularities in the administration, as pouring the excreta down slop-sinks which the patients would use as hand-basins, and washing soiled linen in the baths. The irritation set up by unsound or improper food might be a possible means of inducing a recrudescence of a latent infection, but there was no evidence that it could originate the disease and the water-supply of the asylums was unimpeachable. In some the drains and sanitary arrangements had been very defective, but there had been no greater incidence of the disease in these than in others. He had no doubt that stricter observance of notification, the isolation of all cases, avoidance of overcrowding and of the transfer of patients suffering from chronic and latent forms of the disease, with enforcement of disinfection and of the precautions practised in the treatment of enteric fever, would have the effect of greatly reducing the prevalence of dysentery in asylums, if not of eradicating it altogether.—The discussion of the paper was deferred to the next meeting to be held in January.

**ÆSCULAPIAN SOCIETY OF LONDON.**—A meeting of this society was held on Dec. 20th, Dr. Arthur T. Davies, the President, being in the chair.—Dr. W. J. Gow opened a discussion on the Treatment of Placenta Prævia. He said that as soon as the diagnosis was sure treatment should be begun. With an external os of small size a tent must be introduced within the cervical canal, and later, when admissible, a hydrostatic bag. It must be remembered that foreign bodies within the cervical canal acted merely as stimuli to the uterus to contract and retract at a quicker rate than it would without that stimulus. The cervix was intolerant of forcible dilatation beyond a slight degree, and rather than so yield would split. If labour had advanced so that the cervical canal was a part of the uterine cavity and the os sufficiently large version might be attempted. If podalic version be done forceps should be at hand to apply to the after-coming head, for that method of delivery was more gentle than forcible traction made on the shoulders. He insisted that hurry in delivery should be avoided. With the end of the first stage

bleeding ceased. If, after the patient had lost much blood, there were a rapid delivery portal plethora might result fatally very soon after delivery. He thought that separation of the placenta was not only useless, but possibly harmful, by lessening the foetal blood-supply.—A general discussion followed, to which Dr. Gow replied.

**PATHOLOGICAL SOCIETY OF MANCHESTER.**—A meeting of this society was held on Dec. 11th, Mr. J. Collier, the President, being in the chair.—Dr. F. C. Moore made a communication on Hepatic Cirrhosis.—Mr. W. P. Montgomery followed with a communication on Epithelioma originating in the Deep Male Urethra. Three cases were mentioned, and in two of these the specimen and sections were shown. One case had already been reported.<sup>1</sup> In the second the growth began in the penile urethra and the complete operation with removal of the inguinal glands was carried out. In the third case (under the care of a colleague, Mr. Wright), in which the growth first affected the bulbous urethra, suprapubic cystotomy was performed.—Mr. J. B. Wolstenholme exhibited preparations from two cases of Botryomycosis in Horses. The first exhibit was one of colonies of botryomyces in the form of granules found in the pus (a case of chronic abscesses of the thigh), and the second was a section from a large fibroma of the spermatic cord after castration, showing colonies of organisms surrounded by new granulation tissue.—Dr. J. S. Bury and Dr. Moore described a Tumour from the Cervical Region of the Cord.

## Reviews and Notices of Books.

*The Principles and Practice of Operative Dentistry.* By J. S. MARSHALL, M.D. Chicago: J. B. Lippincott Co. 1901. Pp. 635, with 725 Illustrations.

THIS is an extremely well-illustrated volume. The title, however, hardly conveys a correct idea of the scope of the book. The major portion of the text deals with the anatomy and histology of the teeth and dental pathology: the minor portion with the various dental operations. The author's description of the anatomy and histology of the teeth is clear, concise, and complete, and the illustrations are excellent. There is an interesting account of the eruption of the teeth and the morbid conditions which occasionally accompany the eruption of the deciduous dentition. A chapter is devoted to the Bacteriology of the Mouth and the description of that interesting organism, the *leptothrix racemosa*, is good. The subject matter of this chapter, however, is not up to date. For example, the author states that "the mouth bacteria proper have the peculiarity that no culture medium has yet been found upon which they can be grown." This is not correct, for Mr. K. Goadby has overcome the difficulty and has published descriptions of the *bacillus maximus buccalis* and the *spirillum sputigenum*. We find, too, no reference to the *cladotrix buccalis* which Mr. Goadby has described. Good accounts are given of the pathology of the pulp and the periodontal membrane, but the classifications adopted are not satisfactory.

Throughout the book the descriptions of operative procedures are not as complete as might be expected in a volume of over 600 pages ostensibly on operative dentistry; the advice, too, is not always trustworthy. It is hardly to be credited that any modern dentist should still advocate such an unscientific instrument as the key, yet we find the author referring to this instrument in the following terms: "It is, however, a very serviceable instrument in certain cases where the crown of a molar has been broken away by caries or accident to a point beneath the gum, upon the buccal or lingual side only, while the remaining portion is strong. Such cases offer great difficulties to their extraction with the forceps, which either slip off or carry away the remaining portion of the crown, while it is often impossible to

<sup>1</sup> Medical Chronicle, June, 1901.

remove them with an elevator. The application of the turnkey to such teeth converts a difficult operation into a simple one. This is accomplished by placing the fulcrum upon the gum upon the side of the tooth which has been broken away and the claw upon the opposite side of the tooth at the margin of the gum. This permits a proper direction of the force applied and admits of an easy and natural removal of the tooth." Another example of the value of the methods advocated can be gleaned from the following reference to elevators, the pictures of which, by the way, are somewhat quaint. The author says: "In applying these instruments the grooved face is adjusted to the surface of the tooth and the blade carried downward to the alveolar process. Force is then exerted in a direction to lift the tooth from the alveolus."

The description of plastic fillings is good and contains an account of recent works on the behaviour of amalgams. We cannot, however, quite agree with all the views of the author on the uses of the various amalgams. For example, few practitioners of experience would care to assert that copper amalgam has no equal as a filling for the posterior teeth of children and that palladium amalgam has no good qualities which are not possessed in a higher degree by copper amalgam.

To sum up, this book may be considered a very fair work on dental anatomy and pathology, but a poor one on operative dentistry. The reproductions of photograms and micrograms are excellent and are certainly the most pleasing feature.

*Malaria: ihr Wesen, ihre Entstehung, und ihre Verhütung. (Nature, Origin, and Prevention of Malaria.)* By Dr. FRITZ KERSCHBAUMER, Vienna. Vienna and Leipsic: W. Braumüller. 1901. Super royal 8vo. Pp. 200. With 12 plates. Price 7 marks.

DR. KERSCHBAUMER'S book may be divided roughly into three parts, in the first of which he gives a short *résumé* of the arguments for and against the view that mosquitoes alone are responsible for the spread of malaria and a concise account of the sexual and asexual development of the parasite. In describing the changes which the plasmodium undergoes in the course of its development the author employs the terms proposed by Schaudinn and Luhe and inserts two tables of synonyms compiled by the latter which the reader will find very useful in helping to clear away some of the confusion which at present exists in this matter of nomenclature. These tables, he points out, are not given in Luhe's original article<sup>1</sup> but appear in an enlarged reprint. The second part is taken up with an account of the author's labours at San Pelagio, and the third gives the conclusions at which he has arrived as regards the best way of combating the disease. While the method advocated by Koch—viz., that of protecting the mosquitoes from malarious patients by killing the latter's parasites with quinine—may be of use in isolated communities, and the method already employed in many places of protecting people from malarious mosquitoes by means of netting, &c., is also useful, the only remedy that can be applied on a large scale, in the author's opinion, is that of exterminating the anopheles altogether. Obviously the first steps to take towards solving the problem of how best to do this were to study the life history and surroundings of the insect. San Pelagio in Rovigno (Istria), was selected as a suitable spot in which to do this, because here malaria only occurs sporadically, and it was thought that where this was the case the causes which gave rise to the disease could be isolated for observation more easily than where it was rife. At San Pelagio the anopheles larvæ were found chiefly in shallow pools of clear water which were rich in zooplankton, while foul water was fatal to them. In this connexion it is interesting to note that culex larvæ thrived

in flasks of pond water which were kept sweet by the introduction of fresh eucalyptus leaves, while in the control flasks the larvæ died apparently from fouling of the water. The anopheles larvæ are ferocious little animals and in the culex aquaria they play the part of a pike in a carp pond. The author has seen a hungry one bite a culex larva in two, and they even indulge in cannibalistic practices. While the larvæ usually keep to the surface of the water they invariably descend to the bottom of the pond to change their skins, but they appear to be unable to do this where the water is more than one metre in depth. If a pool in which they are living be artificially deepened to this extent the larvæ die. On this observation the author founds his proposal for the destruction of the mosquitoes, which is to flood their breeding-places to the depth of more than one metre. In several places (e.g., Mantua and Mexico) malaria appeared when the lakes surrounding these cities were drained. In the case of the former it diminished again when weirs were built to keep the swamps flooded. In some localities this method will doubtless prove successful, though obviously its sphere of usefulness will be limited by engineering and economic considerations as much as other prophylactic measures are by the difficulties peculiar to them. The author's investigations throw a good deal of light on the development of certain species of mosquitoes in a temperate climate, and we shall be glad to see the results of further researches which he is about to make in this direction.

*Clinical Pathology and Practical Morbid Histology.* By T. STRANGEWAYS PIGG, M.A., Demonstrator of Pathology in the University of Cambridge. Second edition. London: Strangeways and Sons. 1901. Pp. 107. Price 5s.

WE are glad to welcome a second edition of this excellent little book. The methods given are carefully selected, clearly described, and especially suitable for use in a clinical laboratory. It is necessarily in great part a book of receipts—it is a laboratory handbook pure and simple—and no attempt is made to explain the methods, though there is a departure from this treatment of the subject in the account of the blood-cells and in the excellent scheme for making and reporting upon a blood examination. The only method given for the direct estimation of hæmoglobin is that of von Fleischel, but possibly there are sound reasons for selecting this one method. It is perhaps to be hypercritical, but as the surgical operations required for obtaining blood for bacteriological examination are so carefully described it might be as well to mention the removal of the constricting bandage from the patient's arm (par. 6, p. 30). It is doubtful whether anyone qualified to obtain blood by this method would require such elaborate directions. Would it not also be better to place Operation 6 on page 46 between Operations 4 and 5? Neisser's method for staining diphtheria bacilli is stated in its original form but most workers find the times given rather short. We would venture to think that there are better methods for removing the serum from the collecting pipette in making the Widal-Grünbaum test than that given, as, in our experience, it is the exception rather than the rule to find that the serum can be blown out as described. The figures are, with the exception of the excellent blood plates, somewhat rough, but they serve their purposes. The blank pages should prove very useful, as also would an index, which is at present wanting. The book, in short, is an excellent specimen of what a laboratory handbook should be and will certainly be of great service.

#### LIBRARY TABLE.

*A Manual of Bacteriology.* By HERRBERT W. WILLIAMS, M.D., Professor of Pathology and Bacteriology, Medical Department, University of Buffalo. Second edition, revised and enlarged. London: Rebman, Limited. 1901. Pp. 290

<sup>1</sup> Centralblatt für Bakteriologie, 1900, Band xxvii., p. 367.

Price 7s. 6d. net.—A few years ago text-books on bacteriology were few and the student was dependent to a large extent upon lectures for his knowledge of the subject. Now there is a constant stream of manuals, most of them written with an eye to the medical man or the medical student. The present work is of this class and "endeavours to describe the laboratory technique which the beginner must follow and at the same time to give a concise summary of the facts in bacteriology most important to the physician." The second endeavour is more successfully accomplished than the first and the second part of the book is better than the first. Technique can only be learnt in a laboratory and though the principles underlying technical methods may reasonably be dealt with in such a work as the present the actual instruction required to carry out any method can only be given in the guise of a laboratory handbook where each step is set out in sequence. While there are no obvious errors other than those of omission in the technical operations detailed, in very few cases would the student by simply reading the first part of this book be able to get successful results. The author, too, here seems a little uncertain of his readers, as it is difficult to believe that it is necessary to explain that spirillum is the singular of spirilla or that material for microscopic examination "is usually placed upon thin slips of glass called cover-glasses." It is recommended that material for work should be obtained so far as possible from nature rather than from laboratory cultures, and this is good advice. The second part of the book is decidedly good, taking into consideration the necessity of conciseness, and especially the chapter on Bacteria in Disease, though, owing to the compression, probably the student would not get so much out of the chapter as the author has put into it. It is very difficult to treat of immunity in 10 pages of text, especially when vaccination and the production of antitoxic serum are also described there. The needs of the practitioner are consulted by two chapters on Disinfectants, and the Sterilisation of Instruments, Dressings, &c. The subjects are treated somewhat at length and in a practical manner by Dr. Carpenter and Dr. Chauncey P. Smith respectively. Part III. gives a short account of some of the commoner non-pathogenic bacteria, and Part IV. is devoted to a description of the pathogenic microbes of the most common occurrence and clinical importance. Throughout the descriptions the facts of value to the medical man are kept prominent. On the whole the aims of the author seem to be successfully accomplished. The illustrations are in great part borrowed from the excellent works of Fraenkel and Pfeiffer and Günther. They are well reproduced, and the printing, paper, and binding are all satisfactory. The book will be useful to all medical men who desire a short concise account of bacteriology as it affects clinical work.

*The End of an Epoch.* By A. LINCOLN GREEN. Edinburgh and London: William Blackwood and Sons. 1901. Pp. 391. Price 6s.—We congratulate Mr. Lincoln Green on a powerful and in many ways original story. Incidentally we may mention that he might have spared us the harmonium in Durham Cathedral. A "positive" organ would have taken up no more room and would not have been so incongruous. But to go on to the story, which is by no means a cheerful one. Adam Gordon, a young bacteriologist, becomes acquainted with a direful old man, one Professor Falk, who after long research has evolved a cross-bred microbe called "B. paradoxus." It is quite new and sporulates with exceeding vigour, so that mankind is practically helpless against it. However, there is an antitoxin for it; the bacillus does not affect people over 70 years of age, and its spores are inactive at a temperature of 38° F. We will not be so unkind as to give away Mr. Lincoln Green's plot; suffice it to say that there is nothing theoretically impossible in his story. The book is well worth reading,

although we should say that the author is a young writer, for he has not altogether surmounted the difficulties of writing a long narrative in the first person. But although he is not a Defoe he has descriptive powers. Witness the incident of the starving pack of hounds and the horse in St. Paul's Churchyard. Though a novel of the pathological order the writer does not go into unpleasant details, as is the custom of some authors. We look forward to Mr. Lincoln Green's next book.

*The First Men in the Moon.* By H. C. WELLS. London: George Newnes, Limited. 1901. Pp. 342. Price 6s.—Mr. Wells, in his latest fantasy, follows in the steps of other writers of imaginary journeys. Lucian, Ariosto, Poe, and Baron Munchausen all wrote about daring travellers who arrived in the moon, while Jules Verne wrote an amazingly convincing account of how to get there. That his dauntless three did not succeed in landing was due to influences quite beyond their power to rectify. Cavor, who is Mr. Wells's protagonist, had a simple theory which he converted into fact. His argument was that if, as everyone knows is the fact, there are some substances which are impervious to light rays or heat rays or electrical rays, so, also, there may be a substance which is impervious to gravitation. He experiments until he manufactures such a substance and then constructs a sphere, or rather a polyhedron, which is covered with plates of the substance in question called "Cavorite." These plates can be drawn up and down like blinds, so that when they are drawn up that surface of the sphere which is uncovered is attracted by gravitation. When all the plates are down gravitation is entirely cut off. Cavor and his companion start in this manner by cutting off all gravitation, and when they get near the moon they draw up one of the plates on the side of the sphere nearest the moon. The attraction of this body then pulls them into it. For their adventures in the moon we must refer our readers to the book itself. Suffice it to say that the polity of the Selenites is division of labour pushed to its utmost extent. The book is one to read and to enjoy.

*By-laws as to House Drainage and Sanitary Fittings Made by the London County Council.* Annotated by GERARD J. G. JENSEN and Another. London: Sanitary Publishing Company, Limited. 1901. Pp. 139. Price 3s. 6d.—The new drainage by-laws of the London County Council came into force on June 14th last. The changes thereby involved are of the greatest importance to architects, sanitary inspectors, builders, and others officially or otherwise interested in house-property in the metropolis. The object of the present work is to explain the by-laws in detail and thereby to assist those who are affected by them to a clearer conception of the various requirements embodied therein and to avoid unintentional infringement. The work has been prepared by Mr. Gerard J. G. Jensen, C.E., in conjunction with a gentleman holding a high official position whose name is withheld for the present. The information embodied in the work will render it useful to every householder. The annotations are clearly written and explain the by-laws in such a way that no one after reading them ought to be betrayed into unintentional infringement of the regulations of the London County Council. A block plan map of the administrative county of London and upwards of 100 illustrations serve to make the work easy to follow.

*A Versailles Christmas Tide.* By MARY STUART BOYD. London: Chatto and Windus. 1901. Price 6s. Pp. 81.—A very pretty little story, although it does deal with scarlet fever, with equally charming pictures by A. S. Boyd.

GLoucester INFIRMARY.—At a special general meeting of the governors of the Gloucester Infirmary it was decided to make several structural alterations in the institution at an estimated cost of £10,000.

# THE LANCET.

LONDON: SATURDAY, DECEMBER 28, 1901.

## THE ANNUS MEDICUS 1901.

### MEDICINE AND THERAPEUTICS.

#### *The British Congress on Tuberculosis.*

THE chief medical event of the year was undoubtedly the meeting of the British Congress on Tuberculosis. It was instrumental in bringing together a large number of workers in the field of preventive medicine both in this country and abroad, and this act was attended with a useful exchange of ideas and with a quickening of the public conscience in the matter of State medicine generally and of the prevention of tuberculosis in general. The great sensation of the Congress was undoubtedly the address of Professor KOCH, in which he threw doubt upon the communicability of tuberculosis from animals to man. This statement brought forth replies from several noted observers, such as Lord LISTER, Professor BANG, Professor NOCARD, Professor G. SIMS WOODHEAD, and Professor J. MCFARDEAN, and it was evident that in the opinion of comparative pathologists there were at least other sides to the question. As we have previously pointed out, one of the objects of a scientific congress is to try to obtain legislation on matters which relate to the public weal; the discussion which ensued consequent on Professor KOCH's paper aroused such widespread interest that the Government speedily appointed a Royal Commission with full powers to investigate the comparative phenomena of tuberculosis in man and the lower animals. The constitution of the Commission is such as to guarantee that everything that experience, energy, and scientific knowledge can provide will be brought to bear in the elucidation of many of the obscure points which complicate the problems of tuberculosis. Professor BROUARDEL delivered an address which was full of useful information and of encouragement with regard to the utility of preventive measures. He attributed the decline of pulmonary tuberculosis in this country largely to the better housing of the poor and to the generally improved condition of the labouring classes. In the various sections into which the work of the Congress was divided many papers of great interest were read and important discussions took place. A marked and satisfactory feature of the Congress was the number of foreigners who took part in the proceedings. The museum which was established in connexion with the meeting reflected the greatest credit on those responsible for its existence.

#### *Bovine and Human Tuberculosis.*

In connexion with Professor KOCH's communication to which we have above referred a paper which was read by Dr. M. P. RAVENEL was of particular interest. His experiments and the evidence which he had collected went to prove that the tubercle bacillus from bovine sources had in culture fairly constant and persistent peculiarities of growth and morphology by which it might tentatively be differentiated from that ordinarily found in man. Further, Dr. RAVENEL was of opinion that it was a fair assumption from the evidence at hand, and in the absence of evidence to the contrary, that the bovine tubercle bacillus had a high degree of pathogenic power for man also, which was especially manifest in the early years of life.

#### *The Treatment of Pulmonary Tuberculosis.*

Many methods of treating pulmonary tuberculosis have been proposed, but none of them have been generally adopted. Successful results have, of course, been claimed by the observers who have introduced such therapeutic measures, but when subjected to skilled supervision or tried by equally competent physicians the progress of the cases has not been shown to excel, or generally even to equal, that exhibited by the methods of treatment already in existence. The "hygienic" or "open-air" treatment is being largely adopted and sanatoriums have been or are being established in districts of the country which are deemed suitable sites for them. The results continue to be satisfactory, and various schemes have been proposed for the extension of the treatment for those who are unable to pay the fees charged by the private establishments.

#### *The Royal Commission on Arsenical Poisoning.*

The decision of the members of the Royal Commission on Arsenical Poisoning to report their proceedings from time to time and to summarise in a series of reports the conclusions at which they have arrived is a good one and will be received with general satisfaction. The first report was published about the middle of the year and related to arsenic in beer. The evidence afforded by the recent epidemic in the north of England was fully considered and the Commission had no difficulty in arriving at the conclusions: (1) that the cases of sickness and death reported during the epidemic were attributable to poisoning by arsenic, and (2) that such exceptional sickness and death were due to arsenic in beer. The members of the Commission have yet to consider the apparent ubiquity of arsenic, and by what safeguards the introduction of arsenic into food and many other things besides beer can be prevented; they have also to hear evidence on other matters closely connected with the subject.

#### *The Prevention of Typhoid Fever.*

The preventive inoculation against typhoid fever has not fulfilled the hopes that were at one time attached to it. The production of artificial immunity has undergone a very severe trial amongst the troops in South Africa. The general opinion of the medical officers seems to be that a certain amount of protection is afforded by the injections, but that the immunity so conferred is not of long duration. Dr. H. H. TOOTH, in a paper read before the Clinical Society of London on his personal experiences of enteric fever among the troops, spoke favourably of the method, and was of opinion that the disease took a milder and more benign course in the inoculated than it did in the non-inoculated. Inoculation cannot, however, be said to have had a fair trial, and until the figures for the whole army are published no definite conclusion can be arrived at as to its value in protecting from the disease and its effect on the mortality of those attacked.

#### *The Treatment of Diphtheria.*

The statistics published from time to time in this and other countries continue to bear strong witness to the value of the antitoxin treatment. The reports go to show that the antitoxin is harmless and should therefore be used in all cases of doubtful disease of the throat when the affection is severe without waiting for bacteriological confirmation. It has been clearly proved that the earlier the injection is given the better is the result. In those cases in which the antitoxin is given on the first or the second day of the illness the mortality is far below that which occurs when its administration is postponed until a later period.

#### *Small-pox.*

The outbreak of small-pox in London which has continued since the end of July shows no certain signs of decrease, and according to the experience gained by other epidemics the cases may be expected to increase in number. One

of the most prominent lessons afforded by the present outbreak is the difficulties which have been experienced in diagnosis. We have several times referred to this point in our columns. The difficulties arise from two main causes, (1) the modification of the eruption due to the effects of previous vaccination, the efficacy of which has begun to wane owing to lapse of time, and (2) the want of experience in many practitioners, who, thanks to the general adoption of vaccination, especially amongst the educated classes, have had but little experience in the disease. The present laws relating to vaccination are only "experimental," and it will be interesting to see how the more recent outbreaks will affect legislators when the question is again discussed in Parliament.

#### *Scarlet Fever.*

Scarlet fever has been very prevalent during the later months of the year. The report of the medical officer of the London County Council issued in November is of great interest as proving how the disease can be spread by milk. Scarlet fever was shown to have existed on a certain farm whence milk was supplied to the districts where scarlet fever had broken out. An important point brought out in the report was that the middleman had no records which would enable him to give information as to how the milk from his several farms had been distributed among the local vendors. Some better machinery for detecting and excluding infective milk from London is obviously needed, and this, it may be hoped, will at no distant date be provided.

#### *Rheumatic Fever.*

The supposition that rheumatic fever is due to a pathogenic organism is gradually being substantiated; as a result, in most of the modern text-books this disease no longer finds a place amongst "diseases of the joints," but amongst the specific fevers. Dr. F. J. POYNTON and Dr. ALEXANDER PAINE have continued their researches upon rheumatic fever. They have demonstrated the diplococcus in rheumatic nodules and have isolated the organism from the nodule in pure culture. Further, intravenous inoculation of this culture produced valvulitis, pericarditis, and polyarthritis in a rabbit, and, finally, the diplococcus was isolated from the exudation from the joint of this rabbit.

#### *Sporadic Cerebro-Spinal Meningitis.*

Dr. WILLIAM HUNTER (assistant bacteriologist to the London Hospital) and Mr. A. W. NUTHALL have published some interesting results on the bacteriology of sporadic cerebro-spinal meningitis. In all the cases of meningitis which they examined a diplococcus was isolated from the cerebro-spinal fluid. This diplococcus was found to have the same morphological and biological characteristics as Professor WEICHSELBAUM's diplococcus intracellularis meningitidis. The clinical picture and the pathological changes found in the cases of Dr. HUNTER and Mr. NUTHALL corresponded with those that are met with in so-called "posterior basal meningitis." These observers, therefore, came to the important conclusion that in all probability "posterior basal meningitis" is simply a sporadic manifestation of cerebro-spinal meningitis and is produced by the same micro-organism.

#### *The Lectures of the Year.*

The Baillie lectures at St. George's Hospital were delivered by Dr. W. HOWSHIP DICKINSON, who chose for his subject, "Considerations Touching the Pathology and Relations of Diabetes." Many interesting points were referred to, especially in regard to the relation of the nervous system to diabetes. In speaking of treatment Dr. DICKINSON threw much doubt on the efficacy of opium and its derivatives in checking the disease. Dr. J. MITCHELL BRUCE delivered the Lettsomian lectures before the Medical Society of London on Diseases and Disorders of the Heart and Arteries in Middle and Advanced Life. He drew attention to the many forces

that threaten the heart and arteries which are peculiar to that period of life and brought forward many interesting points in reference to etiology and treatment. The Croonian lectures at the Royal College of Physicians of London were delivered by Dr. W. D. HALLIBURTON. The subject was an abstruse one: "The Chemical Side of Nervous Activity." The lecturer handled it, however, in a most able manner and his observations on the cerebro-spinal fluid form a valuable source for reference and study. The Goulstonian lectures at the Royal College of Physicians of London were delivered by Dr. HENRY HEAD. The subject selected was "Certain Mental Changes that accompany Visceral Disease." It was shown that the presence of pain of the reflected visceral type tends to be associated with a mental state, containing amongst other conditions a sense of ill-being and a causeless suspicion. The Cavendish lecture was delivered before the West London Medico-Chirurgical Society by Sir RICHARD DOUGLAS POWELL who suggested many lines of thought with regard to "acute cardiac failure." The Bradshaw lecture at the Royal College of Physicians of London was in the hands of Dr. JUDSON S. BURY who selected as his theme "Prognosis in Relation to Disease of the Nervous System."

#### *The British Medical Association.*

The British Medical Association met at Cheltenham, and many interesting papers were forthcoming in the Medical, Pathological, and Therapeutical Sections. The address in medicine was undertaken by Dr. J. F. GOODHART, who gave an eloquent discourse on the difficulties encountered in the daily practice of medicine. Amongst the most interesting discussions were those on Rheumatism (introduced by Dr. ARCHIBALD GARROD), on the Power of Alcohol to Produce Peripheral Neuritis (introduced by Dr. E. S. REYNOLDS), and on the Pathology of Pneumococcal Infection (introduced by Mr. A. G. R. FOULERTON).

#### *New Publications.*

The publication of the "Twentieth Century Practice" is now complete and forms a vast work representing an excellent summary of our present knowledge of medical science. The whole work has been carried out in a manner worthy of the highest praise. The "Encyclopædia Medica" has reached the eighth volume and Dr. W. H. ALLCHIN'S "Manual of Medicine" the third volume. An elaborate "Text-book of Medicine" edited by Dr. G. A. GIBSON has appeared and new editions of many well-known text-books have also been published. Reviews of these works have already appeared in the columns of THE LANCET.

#### SURGERY.

Few surgeons will be found to question that in the past year, as in several that have preceded it, abdominal surgery has held the chief place, and the explanation of this very evident fact is to be found partly in the large number of organs contained in that cavity, and partly because we can shut off the general cavity of the peritoneum by careful packing with gauze, so that we need have but little fear of infecting the peritoneum generally. Much has been done, yet doubtlessly much more remains to be done.

#### *Bullet-wounds of the Stomach.*

The assassination of President MCKINLEY directed the attention both of the profession and of the public to the subject of bullet-wounds of the stomach. The marvellous results of bullet-wounds inflicted by the Mauser rifle had much impressed every one. Bullets had in some cases certainly traversed the abdomen and had undoubtedly perforated some of its hollow viscera, and yet recovery ensued without any operative interference. It was but natural to imagine that a similar happy ending might be encountered in persons wounded by pistol-bullets in civil life, but the conditions are very different. The nickel-coated Mauser bullet

bores a small smooth hole through an organ—so small and so smooth that in many cases no extravasation takes place, and the wounds heal practically by first intention. Far otherwise is it with wounds inflicted with a revolver-bullet; these are not only often of greater diameter, but they have no casing, and therefore are much more liable to be altered in shape in their passage through the tissues. These reasons quite suffice to account for the far greater damage they inflict; therefore it cannot be expected that the wounds will heal easily, as their edges are bruised; so that it comes to pass that the greatest surgical skill in adjusting and suturing the edges of the wound may avail [nothing, for the damaged tissues may make no effort at repair. We have reported several cases in which so-called toy-pistols have inflicted serious injuries; the only way to put a stop to the sale of these harmful and useless weapons is to make the vendors of them responsible.

#### *Extirpation of the Stomach.*

Only three or four years ago total extirpation of the stomach was considered, and rightly so, as a most marvellous achievement; yet the operation has been so many times repeated now that it has lost no small degree of the distinction it once possessed. We have recorded a successful case of total gastric extirpation which was performed by Dr. A. VON BARDELEBEN of Westphalia, in which the patient markedly increased in weight after the operation. Up to the present 11 or 12 cases have been reported in which the whole of the organ with small portions of the œsophagus and duodenum have been removed, and very many more in which nearly the whole viscus has been excised.

#### *Gastric Ulcer.*

The surgical treatment of gastric ulcer, especially when complicated with hæmatemesis, is steadily advancing. Perhaps at first, when the idea of surgical intervention in ulcer of the stomach arose, there was a little tendency to unnecessary interference, for every one will acknowledge that many gastric ulcers do heal spontaneously or after medicinal treatment and dieting. Perhaps the most important contribution to our knowledge on this subject was an address delivered by Professor A. W. MAYO ROBSON before the Edinburgh Medico-Chirurgical Society; in this he pointed out the great risk of fatal hæmorrhage in gastric ulcer and showed the satisfactory results of timely surgical treatment. The value of operation for chronic gastric ulcer was further emphasised by the same surgeon in an address delivered before the American Surgical Association. Mr. C. R. B. KEETLEY also has recorded several cases showing the benefit of operation in hæmatemesis. When an ulcer of the stomach perforates into the peritoneal cavity the general peritonitis which arises is before operation often indistinguishable from peritonitis arising from appendicitis or other causes, and even when a definite diagnosis cannot be made there need be no doubt as to the advisability of a laparotomy. In the diagnosis of perforative peritonitis too much stress is still laid on absence of the liver dulness, for this is a sign which is very variable. The liver dulness may be present although perforation has occurred, and, on the other hand, it may be absent without any perforation of any viscus. We have published in THE LANCET during the year many papers describing the surgical treatment of these cases of perforative peritonitis and the results are in no small proportion very gratifying. As to the correct treatment of the peritoneal cavity after the perforation has been sutured there is by no means unanimity. Many surgeons still flush out the abdomen with large quantities of sterilised water, while others content themselves with sponging. We do not at the present time possess sufficient data to come to a decision on this important point, for recoveries occur after the employment of each method. On the whole it may be said that flushing the peritoneal cavity

is now not so frequently used as it was a few years ago. A case of great interest was recorded by Mr. A. A. BOWLBY and Mr. J. F. STEEDMAN; a young woman had a gastric ulcer which perforated and Mr. BOWLBY opened the abdomen and sutured the perforation. The patient did well for three weeks, when symptoms of intestinal obstruction arose; these were found on laparotomy to be due to a volvulus of the small intestine caused by its fixation in Douglas's pouch. The second operation was followed by complete recovery.

#### *Hour-glass Stomach.*

A paper on Hour-glass Contraction of the Stomach by Mr. B. G. A. MOYNIHAN deserves mention; in it is contained a table of 36 cases recorded in medical literature and notes of six cases in which he had himself operated. It is customary to consider a large proportion of these cases to be of congenital origin, but Mr. MOYNIHAN advances good reasons for doubting if any truly congenital cases exist. Several operative procedures can be employed for the treatment of hour-glass contraction, but no single operation can be said to be best in all cases. The simplest method is gastropasty—that is, longitudinal incision and transverse suture—but this is only suited to cases in which the ulcerative process has ceased and there is no pyloric obstruction.

#### *Resection of the Bowel.*

The danger of operating on diabetic patients has been generally acknowledged, but Mr. A. E. J. BARKER has reported a case in which he excised successfully a carcinoma of the large intestine in a woman, 58 years of age, whose urine contained over 6 per cent. of sugar. With aseptic surgery, however, much may be done that was formerly impossible, though it will probably always be found that diabetic persons will not prove very favourable subjects for operation. Mr. BARKER has made another contribution on intestinal surgery: he has removed five and a half feet of the small intestine from an old woman, 76 years of age, and the patient recovered. This is a large amount of bowel to excise, but it has been surpassed in a case in which RUGGI removed more than 10 feet of bowel from a boy, eight years old; but when we consider the length of intestine removed by Mr. BARKER and the age of the patient we cannot fail to recognise the striking character of the case.

#### *Intestinal Anastomosis.*

The methods which have been devised for the anastomosis of bowel are very numerous; in all more than 200 different devices have been described, but it may safely be said that not more than 20 of these survive. Mr. H. LITTLEWOOD has introduced a method of intestinal suture by means of a continuous catgut stitch, with excision of the mucous membrane. This excision is intended to prevent the tendency, sometimes observed, to spontaneous closure of the anastomotic opening. Mr. LITTLEWOOD has performed seven or eight gastro-enterostomies and three colectomies with it, and it certainly seems worthy of a trial. The importance of counting the number of instruments and sponges used in abdominal operations was very strikingly shown in a case reported by Mr. E. H. ELLISON. He found in a patient who complained of severe abdominal pain that a part of a pair of artery forceps was projecting from a small opening in the abdominal wall about three inches below and to the left of the umbilicus. As the patient declined any cutting operation, and as it was impossible to remove the forceps without, the blades were broken off and removed and later one handle was got away. The original abdominal section was performed eight and a half years previously and for all that length of time the forceps had been lying in the abdomen.

#### *Wounds of the Heart.*

Little has been done in the surgery of the vascular system, but a few important operations are well worthy to be referred

to. For rupture of the heart and for incised or punctured wounds of the same organ there is very little chance of recovery apart from operation. Dr. L. L. HILL has contributed a valuable paper pointing out the importance of prompt surgical interference in these injuries. In 45 cases in which the heart was ruptured by injury all died, one patient surviving 14 hours. Of patients operated on for heart wounds 41 per cent. recovered, as against 10 per cent. on whom no operation was performed. The sutures applied to the heart substance should be close together and should not involve the endocardium. They should be passed and tied during diastole and silk is the best material. Dr. HILL gave notes of two cases of heart injury; in one a needle which had penetrated the heart of a little girl was safely removed and in the other a young man was stabbed in the left fourth intercostal space. The blood was let out by enlarging the wound in the pericardium. The great obstacle in the way of much cardiac surgery is that the patients generally expire before any surgical aid can be obtained.

#### *Suture of Arteries.*

It has until comparatively recently been imagined that a wound in an artery could only be closed by double ligation of the vessel. Attempts, however, have been made to maintain the lumen of the artery, and in a few cases success has followed. The first successful suture of a vessel was performed in 1762. A very brilliant arterial suture was performed by Dr. A. E. HALSTED of Chicago. Dr. HALSTED, in removing a recurrent carcinomatous growth from the axilla, cut into the axillary artery so that it was severed for about two-thirds of its circumference. As at the first operation practically all the branches of the artery, with the exception of the circumflex, had been cut, there was very little chance of a collateral circulation being established. Therefore an attempt to save the artery was made. The circulation was controlled by pressure of the left index finger, and four interrupted catgut sutures were passed through the two outer coats of the vessel and tied. No hæmorrhage followed when the pressure on the artery was removed. Further support to the vessel was given by suturing longitudinally the peri-vascular connective tissue. The patient made a complete recovery and the radial pulse was undisturbed from the very beginning.

#### *Intra-thoracic Aneurysms.*

Intra-thoracic aneurysms have been treated surgically by many methods, but at the present day most of these have been deservedly given up. The injection of a solution of gelatin has been followed by marked improvement in a fair number of cases, and the treatment is undoubtedly well deserving of attention. Unfortunately, of three cases recently treated in London by this method two terminated fatally with symptoms resembling those of tetanus. It is, of course, possible that the injections, though carefully prepared, had become infected with the bacillus tetani, but it is by far more likely that the spasms were the result of chemical products contained in the gelatin.

#### *Actinomycosis.*

Actinomycosis has in this country hardly received the amount of notice that it deserves, for the disease is by no means extremely rare, and it is probable that many cases are unrecognised. Mr. R. J. GODLEE has recorded a series of 15 cases of the disease which he has met with. Generally the abscesses to which the fungus gives rise are imagined to be ordinary abscesses, though a keen eye may detect the little yellow granules. It would be well to examine more frequently the pus evacuated from an abscess, and it is not improbable that the actinomyces would be more frequently encountered.

#### *Enlarged Prostate.*

The diseases of the prostate have lately received much

attention, and several papers bearing on this important subject have been published. Two clinical lectures by Mr. P. J. FREYER have appeared and put very clearly the present position of our knowledge of the treatment of enlarged prostate, and Mr. DAVID WALLACE has also spoken on the same subject. Castration and vasectomy hardly occupy the place in the estimation of surgeons which was once accorded to them. In many cases a large mass of the gland may be enucleated, and this appears to be a very satisfactory operation.

#### *Renal Tension.*

The surgical treatment of acute nephritis was discussed in the surgical section at the Cheltenham meeting of the British Medical Association, and Mr. REGINALD HARRISON opened the discussion. He showed that in many cases the increase of tension in itself was harmful. In such cases a small incision, or even punctures, may suffice to reduce the tension in the organ. Though we must not expect too much from this novel procedure, yet we may not unreasonably hope that it will give us some assistance in dealing with a condition which is practically beyond the measures hitherto adopted for its relief.

#### OBSTETRICS AND GYNÆCOLOGY.

The past year has not witnessed any notable change either in the theory or in the practice of obstetric medicine and gynæcology. A great deal of good work is being done and the output of literature shows no decline either in quantity or quality.

#### *Cæsarean Section.*

Amongst the more interesting of the papers which have appeared in THE LANCET are the records of a number of cases of Cæsarean section. In THE LANCET of Jan. 19th, p. 158, Professor W. J. SINCLAIR reported a Series of Ten Successful Cases of Cæsarean Section with recovery of all the mothers and children. In three of the cases the uterus was removed, but in the remainder the conservative operation was performed. In the first five cases drainage was resorted to, but not in any of the later cases. An elastic tube was passed round the uterus so as to be available if required to produce compression of the vessels, and in all the cases the uterus was brought outside the abdomen before the incision into it was made. Professor SINCLAIR does not approve of the fundal incision recommended by FRITSCH, mainly because of the extreme likelihood of the intestines and omentum becoming adherent to the line of suture, and of the danger that the fundus of the uterus may adhere to the parietal peritoneum before involution is complete and cause pain by dragging upon the area of adhesion situated high up in the abdominal cavity. A case of Cæsarean Section and Complete Removal of the Uterus in the Eighth Month of Pregnancy for cancer of the cervix was reported by Dr. THOMAS OLIVER and Mr. R. MORISON. Five months later the mother was well without any sign of recurrence and the child was flourishing. In THE LANCET of June 8th, p. 1604, Dr. G. E. HERMAN recorded Two Cases of Cæsarean Section, one performed on account of the presence of a flattened rickety pelvis with a true conjugate diameter measuring two and a half inches, and the other performed on a patient who had a fibroid tumour in the pelvic cavity obstructing delivery. Both mothers recovered and one child lived, these two cases bringing the total number of Cæsarean sections performed by Dr. HERMAN at the London Hospital up to 13. Seven of the mothers recovered and six died. In all the six fatal cases the operation was not performed until the patients had been for a long time in labour.

#### *Physiology of Menstruation.*

The interesting question of the Physiological Phenomena preceding or accompanying Menstruation, together with Notes on the Normal Temperature of Women, was discussed by Dr. HELEN MACMURCHY in THE LANCET of

Oct. 5th, p. 909. One of the most important of the Clinical Lectures published in our columns was that delivered by Dr. WILLIAM S. PLAYFAIR upon Chronic Invalidism in Women.

#### *Opothrapy.*

Opothrapy was the subject of a short communication by Dr. JOHN PHILLIPS and was discussed in detail at a meeting of the Philadelphia Obstetrical Society. Dr. PHILLIPS has obtained good results from the administration of thyroid extract in cases of amenorrhœa associated with obesity and myxœdema, and from ovarian extract in cases of the induced and natural menopause. The majority of the speakers who took part in the discussion at Philadelphia had not had any very striking results from the use of the various extracts in gynæcological conditions and the general opinion appeared to be that at the present time there was very little trustworthy evidence of their real value. In Professor E. A. SCHÄFER's laboratory at Edinburgh experiments have been carried out which show that the medullary substance of the suprarenal capsule of the ox or sheep has the power of inducing vigorous contractions in both the pregnant and non-pregnant uterus. The extract may be given by the mouth or used as an intra-uterine injection. Professor SCHÄFER has found that an intravenous injection of a dose of a decoction equal to five grains of the dried extract will rapidly re-establish the action of the heart even after the circulation appears to have ceased, and suggests its use in cases of post-partum hæmorrhage.

#### *Eclampsia.*

The treatment of eclampsia continues to excite a great deal of interest. It formed the subject of a discussion at the German Gynæcological Congress at Giessen and was considered in a paper read before the Obstetrical Society of London by Dr. E. W. HEY GROVES, who gave details of two cases treated by saline infusions, reviewed the whole subject, and warmly recommended this mode of treatment. A paper by Dr. R. JARDINE, who is a strong advocate of the value of saline infusions, entitled "The Treatment of Puerperal Eclampsia by Saline Diuretic Infusions," was published in THE LANCET of June 15th, p. 1682. The various papers read upon this subject at Giessen were remarkable chiefly for the large amount of experimental work brought forward. It is almost impossible at the present time to summarise the opinions of the different speakers, so widely divergent are their views upon many important points. Upon the whole, the value of saline infusions as an auxiliary mode of treatment was recognised by all those who had had any practical experience of this mode of treatment. No definite conclusions, however, were arrived at upon such important questions as the administration of morphia, the performance of *accouchement forcé*, or the practice of Cæsarean section. A great deal of evidence was adduced both for and against the toxic theory of the causation of the disease.

#### *Fibroid Tumours.*

In view of the great advances made in the operative treatment of fibroid tumours of the uterus the treatment of cases of pregnancy complicated by the presence of these tumours has undergone a certain amount of change. This subject was considered in a paper upon Fibroid Tumours complicating Labour and Pregnancy, read before the Obstetrical Society of London by Dr. ARCHIBALD DONALD who arrived at the following conclusions:—

1. In the great majority of instances in which fibro-myomata of the uterus and pregnancy co-exist the course of the pregnancy and of the subsequent labour is not seriously influenced by the tumour; but in a small proportion of cases the patient's life and the life of the child are seriously endangered.
2. When pregnancy is found to be complicated by fibroid tumour it is best to allow the pregnancy to go to term, as long as the mother's health is not seriously endangered.
3. If at the onset of labour, or shortly before, it seems certain that the tumour will cause obstruction to the birth of the child, Cæsarean section, followed by hysterectomy, should be performed.
4. In cases in which the health of the mother makes it necessary to

interfere in the earlier months abdominal section should be performed and an attempt made to enucleate the tumour.

5. If under these circumstances myomectomy is found to be too dangerous, hysterectomy should be performed.

In the discussion that followed most of the speakers expressed the view that a very small number of cases of fibroid tumours complicated by pregnancy required operative measures, and that this was especially the case with subserous fibroid tumours of the uterus. The same question was discussed by Mr. J. BLAND-SUTTON in a series of three lectures on the Surgery of Pregnancy and Labour complicated with Tumours, published in THE LANCET of Feb. 9th (p. 382), 16th (p. 452), and 23rd (p. 529), while at the British Medical Association meeting at Cheltenham Dr. WILLIAM DUNCAN opened a discussion upon When and How to Operate upon Fibroid Tumours.

#### *Leukæmia and Pregnancy.*

At the October meeting of the Obstetrical Society Dr. HERMAN contributed a paper on Leukæmia and Pregnancy, reporting a case of his own and 12 other cases which he had collected from the literature of the subject. From eight of these cases he drew the following conclusions:—

- (1) The presence of an enlarged spleen and liver caused patients with leukæmia to suffer more from the abdominal distension of pregnancy than healthy women; (2) the symptoms of leukæmia were aggravated during pregnancy; (3) in pregnancy with leukæmia there was a great tendency to abortion or premature labour; (4) death sometimes quickly followed the termination of pregnancy with leukæmia; and (5) if the patient survived the termination of pregnancy great improvement took place. Dr. Herman therefore recommended in pregnancy with leukæmia the induction of premature labour or abortion.

#### *Puerperal Fever, Cancer of the Uterus, and the Birth-rate.*

In his presidential address in the section of Obstetrics and Gynæcology at the meeting of the British Medical Association at Cheltenham Professor J. W. BYERS considered the important questions of the Mortality from Puerperal Fever, Cancer of the Uterus, and the Falling Birth-rate. He called attention to the astonishing fact that the death-rate from puerperal fever, which in the years 1847-56 was 1.8 per 1000 in England and Wales, was 2.46 per 1000 in the years 1886-95, and showed that the death-rate from the same cause in Scotland and Ireland was practically stationary. His experience of cancer of the uterus had led him to think that not more than 5 per cent. of all the cases operated upon were cured—the figures published by WINTER of the Berlin Clinic show 9.5 per cent. of cures—and he urged the extreme necessity for more careful observation of this disease and earlier recognition of it upon the part of general practitioners. The fall in the birth-rate is undoubtedly a matter of vital importance. It has fallen from 34.8 per 1000 in 1861-71 to 29 per 1000 in 1900. In suggesting a remedy for this state of things Professor BYERS thought that as medical men it was our duty to redouble our efforts to lower the present rate of infant mortality, amounting in England during the first year of life to 154 per 1000, by teaching the people to pay greater attention to rearing their children properly and by urging the public authorities to provide an adequate supply of pure milk, a matter in which America is far ahead of us. He also pointed out that we could attack this serious problem in another way by taking greater precautions when a woman is pregnant so that she may give birth to a living and healthy child; in other words, we must take care to combat all those conditions which are dangerous to the child's life before and after its birth.

#### *The Treatment of Pregnancy.*

In the *American Journal of Obstetrics* Dr. J. W. BALLANTYNE wrote a most interesting sketch of a visit to the wards of the Pre-Maternity Hospital, or a Twentieth Century Forecast, in which he painted a vivid word-picture of the hospital of the future where the practice of preventive medicine as applied to the mother and foetus in utero will be carried on—a hospital over the door of which will be inscribed the appropriate motto,

"Teach us what we shall do unto the children that shall be born." The observations which PROCHOWNICK of Hamburg has published during the past year on the influence of diet upon the nutrition of the foetus are of much importance. He claims that by placing stout women who have had difficult and instrumental deliveries upon a special diet he has been enabled to procure for them an easy confinement and an ability to nurse their children. In the case of patients with a contracted pelvis and a conjugate varying from three and a half inches to four inches he holds that he has established by his experience of 48 cases with 62 confinements that by special diet it is possible so to influence the average weight and development of the foetus as to enable it to be born at full term without difficulty in cases where on previous occasions instrumental delivery or the induction of premature labour had been necessary. These observations of PROCHOWNICK have received interesting confirmation from the experiments of Dr. D. NOEL PATON who has found that in a well-fed guinea-pig each gramme of body weight of the mother produces 0.35 gramme of young, while in a medium-fed animal the amount is 0.33 gramme of weight of young, and in an under-fed animal only 0.22 gramme of weight of young.

#### *Carcinoma of the Uterus.*

The operative treatment of carcinoma of the uterus is still claiming a great deal of attention and was discussed both at the German Surgical Congress at Heidelberg and at the Gynaecological Congress at Giessen. The great majority of the speakers were in favour of vaginal hysterectomy rather than of abdominal hysterectomy. WINTER pointed out that 134 radical abdominal operations had been performed with a mortality of 24.6 per cent., 18 of the deaths occurring from infection and 12 from collapse. At the Berlin Clinic before 1892 28.7 per cent. of all the cases were operated upon and 33 per cent. cured, or 9.5 per cent. of the whole number; at the present time as many as 48 per cent. of all the cases underwent operation, and if the relative proportion of cases cured was maintained it would amount to 16 per cent. of the whole number. At the present time the bulk of German opinion appears to favour the view largely held here in England—that very good ultimate results can be obtained by vaginal hysterectomy and that it is so far doubtful whether they are likely to be improved upon by the adoption of the radical abdominal operation with its immediate high mortality.

#### *A New Form of Uterine Atresia.*

One of the most important of all the papers published during the year is one by LANDAU upon a form of uterine atresia hitherto undescribed. The patient was a woman, 40 years of age, who had never menstruated and whose symptoms were those of uterine atresia with hæmatometra and hæmatosalpinx. By abdominal section the correctness of the diagnosis was established and the cause of the atresia was found to be a mesonephric adenomyoma occupying the position of the cervix and the vaginal fornices and completely occluding the uterine cavity. LANDAU ascribes the tumour to the inclusion in the substance of the Müllerian duct of some of the transverse canaliculi of the Wolffian body at the place where the latter is crossed by the duct. An interesting anatomical feature of the case is the fact that the cervix was the only remaining place in which mesonephric adenomyomata could occur and in which they had not yet been found, and this gap is filled by the publication of the present case.

#### *The Ingleby Lecture.*

The Ingleby Lecture was delivered by Dr. W. J. SMYLY, who selected for his address the Lower Uterine Segment and the Contraction Ring. He devoted most of his remarks to the important conditions of placenta prævia, rupture of the uterus,

and dystocia caused by the contraction ring. Amongst 76 cases of placenta prævia treated at the Rotunda Hospital, Dublin, four deaths occurred. One of the patients died from hæmorrhage after extraction of the child, two were suffering from septic infection upon their admission into the hospital, and one died from pulmonary embolism. STRASSMANN's figures from the Charité Hospital, Berlin, are quoted to show that the maternal mortality of placenta prævia treated by version by abdominal manipulation and bringing down a leg is only 1.45 per cent. Where the same method was adopted but with bipolar version the mortality was 8.6 per cent., and when version was followed by extraction the mortality was as high as 20 per cent. Cases of dystocia from the presence of the contraction ring during labour have received but scant attention from most obstetric writers, and Dr. SMYLY points out that great obstruction may be offered to delivery by this occurrence. He recommends manual dilatation where immediate treatment is imperative, but where delay is possible he agrees with VEIT's recommendation of patience and the administration of narcotics. It is important to remember that the constriction formed by the contraction ring may be present before, during, or after labour, the most familiar example of its occurrence being the so-called hour-glass contraction of the uterus producing retention of the placenta.

#### *Spinal Anæsthesia.*

The production of anæsthesia by the injection of a solution of cocaine into the spinal canal has now been carried out in a large number of very varying conditions. We gave a review of the whole subject early in the year, in which we considered its advantages and disadvantages. Nothing has been published since that time to cause us to modify our opinions as to the value of this mode of producing anæsthesia.

#### OPHTHALMOLOGY.

It is difficult in a department of medicine like ophthalmology to give any precise statement of progress. The papers that are read before societies and the articles that form the bulk of the communications to journals, contain in the majority of instances only the reports of isolated cases which, however interesting in themselves in either their pathological or therapeutic aspects, rarely lead to any material change in the views generally accepted or the measures adopted by every experienced surgeon. Protargol, for example, may be recommended by one practitioner for trachoma and cuprol by another, but the principles of treatment are not thereby altered and the real progress is small. Again, success may have attended the operation of resection of the sympathetic nerve in the neck in a few cases of chronic glaucoma, an operation that has recently been practised by Dr. GRUNERT of Tübingen, but whilst this is a fit subject for discussion in a society the results of such a proceeding in the hands of many practitioners must be tested and tabulated before the practice can become general. Such cases only form the foundation of subsequent generalisations. It is well that they should be recorded, but they are only the bricks which help to form the future edifice, and as such hardly deserve mention in this retrospect. It is only when large numbers of cases are sought out, brought together, and compared that valuable conclusions can be drawn. As an example of this the treatise on Sarcoma of the Eye by Dr. KERSCHBAUMER may be instanced, in which the author gives a short account of 67 cases of that disease and states the conclusions to which he has been led from their study as well as from the literature of the subject, the bibliography of which he gives in a catalogue of no less than 784 separate publications. The opinions of such a writer, though too long to be inserted here, naturally command attention. Another illustration of our remarks is an excellent article from the pen of Dr. W. GORDON M.

BYERS of the McGill University on Primary Intra-dural Tumours of the Optic Nerve, which appears in the first number of a new journal entitled "Studies from the Royal Victoria Hospital," Montreal. Intra-dural tumours of the optic nerve are of rare occurrence, but by diligent search Dr. BYERS has found records of 102 examples the histories of which when compared show that the characteristics of the affection are the occurrence of painless and slow exophthalmos in the forward direction, profound and early disturbance of vision with slighter ophthalmoscopic changes than might be anticipated, a palpable tumour not adherent to the walls of the orbit, relatively good movement of the globe of the eye, and a hypermetropic state of the eye from pressure. Other illustrations might be given from the excellent paper on Myopia read by Mr. PRIESTLEY SMITH before the Ophthalmological Section of the British Medical Association at the meeting at Cheltenham, which embodied the results of his numerous observations in regard to the advance of myopia of various degrees at different ages.

Before proceeding to notice the principal literary work that has been done in the past year it may be observed that the honour of knighthood has been conferred on Mr. GEORGE ANDERSON CRITCHETT, who has long been one of the most skilful, as well as one of the most successful, ophthalmic surgeons in the metropolis. Dr. DAVID LITTLE, the accomplished representative of this branch of medicine in Manchester, has been elected to the presidency of the Ophthalmological Society of the United Kingdom. The presidency of the Section of Ophthalmology at the meeting of the British Medical Association was appropriately held by Mr. WALTER H. H. JESSOP, the senior ophthalmic surgeon at St. Bartholomew's Hospital, who is a native of Cheltenham and who in his opening address discussed various points in regard to the pathology and prognosis of glioma. The chair of Ophthalmology in Paris has been resigned by Professor PANAS and Dr. DE LAPPERSONNE has been appointed in his stead.

The most remarkable work published in the course of the year is undoubtedly the "Comparative Anatomy of the Mammalian Eye," by Dr. GEORGE LINDSAY JOHNSON, which first appeared in the "Philosophical Transactions" and has since been published in a separate form. It is illustrated by drawings of the fundus of the eye in about 50 species of mammals. The aspect of the fundus in these different animals is exceedingly interesting and presents great variety. It has in each instance been beautifully depicted by Mr. ARTHUR HEAD. In some the optic disc is dark-red or almost black; in others it is white. In some the choroidal vessels are very distinctly marked; in others they are invisible. The choroidal pigment is scanty and irregularly distributed in some; in others it is disposed in plaques or spots with the greatest regularity. In some the retinal vessels are large and numerous and spring from the centre of the disc or from its margin; in others there is not a vestige of them. The appearances presented by the tapetum are instructively shown, and when it is added that the fundus of the eye is depicted in such animals as the camel, the wild boar, the seal, the hippopotamus, the elephant, the bear, the skunk, the hyena, and many others, it is obvious that time, skill, courage, and patience—and, it may be added, money—must have been expended in obtaining such excellent results. A cheap but useful Atlas of the External Diseases of the Eye, constituting one of Lehmann's "Hand Atlanten" and containing 80 illustrations by JOHANN FINK, has been brought out by Professor O. HAAB of Zürich as a companion volume to his "Ophthalmoscopie."

#### *Glaucoma.*

The value of iridectomy in glaucoma was the subject of an animated and important discussion in the Congress of the Société Française d'Ophthalmologie, in which many of

the leading ophthalmologists in Paris took part. M. L. DE WECKER, who acted as reporter, gives the history of VON GRAEFÉ's operation accompanied by iridectomy, followed by HANCOCK's division of the ciliary muscle without iridectomy, and the various modifications of sclerotomy or of iridectomy suggested by M. DE WECKER himself, Professor QUAGLINO, and others, the extra-ocular operations of stretching the external nasal nerve proposed and practised by BADAL, the resection of the superior cervical ganglion of the sympathetic practised by JONNESCO, and, finally, the employment of myotics. The value of the last named very simple means of relieving the symptoms of glaucoma is indubitable, but the consensus of opinion was that it should not be used so persistently as to cause the period during which iridectomy can be performed with advantage to be overpassed. The operation of iridectomy was held to be of little or no value in cases of chronic glaucoma without increased tension, but almost all the speakers expressed decided views in regard to the beneficial influence of iridectomy in acute and subacute cases, the effects of which were better the earlier it was resorted to. M. DARIER observed that where for any grave reason iridectomy could not be practised other means were at the disposal of the surgeon—such as the use of dionine, which alleviates pain and promotes the circulation of lymph; of surrenaline, or extract of the supra-renal bodies, which diminishes intra-ocular pressure and the secretion of aqueous humour; of myotics, which diminish the tension of the globe, contract the pupil, and thus enlarge the absorbing surface of the iris; or of massage-pressure, which when well executed is capable of reducing the tension of the eye in a few minutes from T + 2 to normal tension. Glaucoma, as it occurs in the East, in Turkey and in Egypt, has been specially described by Dr. G. BITZOS of Constantinople. It presents in Turkey only glaucomatous papillitis, glaucomatous pitting of the disc, and the local troubles consequent on these. There is no pain, there are no haloes, and there is but little increase in tension. Primary glaucoma is twice as frequent in Constantinople as compared with Paris and secondary glaucoma is four times as frequent.

#### *New Remedies.*

The new, or comparatively new, remedies that have been found useful in diseases of the eye are acoine, which acts as a powerful anæsthetic when subconjunctivally injected, though useless when its solution is merely instilled into the conjunctival sac; dionine, which is said to aid atropin in dilating the pupil and to act as an antiseptic and an analgesic; cuprol, which is a nucleinate of copper and is strongly recommended by Mr. SIMÉON SNELL as less irritating than the pure sulphate; actol, which is lactate of silver; itrol, or citrate of silver; argen-tamine; argonine or argentum casein; nargol, or nucleate of silver; largin; and especially protargol, which is a compound of silver with vegetable albumin; most of these are substances to which Mr. HARTRIDGE called attention at the Cheltenham meeting of the British Medical Association as new and serviceable remedies for the superficial affections of the eye.

The presence of a specific form of bacillus in that species of conjunctivitis in which the secretion contains fibrinous flocculi was pointed out by Dr. V. MORAX in 1896. His statements were, however, at first received with some incredulity by ophthalmologists. Quite recently, however, several observers have substantiated Dr. V. MORAX's discovery and have been successful in effecting pure cultures of the bacillus which he described as resembling Friedländer's pneumo-bacillus, from which, however, it differs in being longer and destitute of a capsule. As has been recently stated in our columns, the bacillus will live for some days in an aseptic tube and though exposed to light preserves its virulence. When

placed in the conjunctival sac it sets up conjunctivitis with fibrinous flocculi in the secretion in the course of five days. It does not appear to affect animals and it is killed in a quarter of an hour by exposure to a temperature of 58° C.

The pathogeny of exophthalmic goitre was the subject of two papers read at the meeting of the British Medical Association. In one of these Dr. E. GLEY of Paris, after reviewing the various theories that have been advanced, expressed his opinion that this disease is due to an alteration in the thyroid apparatus primarily involving the parathyroid, the normal function of which is abolished. In the second paper Mr. WALTER EDMUNDS detailed the changes which he had observed in the nervous system as the result of the removal of the thyroid and parathyroids. The "Nissl bodies" in the nerve cells were no longer defined and the chromophilous substance was either absent or much reduced in quantity, whilst the nucleus was swollen. The consequences of the operation render it probable that the absence of the parathyroid secretion is in some way the cause of the acute symptoms, its presence being probably necessary for the formation of the Nissl bodies which are supposed to be the food of the cells. The sequelæ of gonorrhœa, apart from purulent ophthalmia, have been embodied in a good paper by Mr. J. B. LAWTON, who finds that the most common secondary affections are arteritis, conjunctivitis, iritis, and irido-cyclitis, then scleritis and episcleritis, and, finally, retinitis and neuro-retinitis.

#### *Cataract.*

Many communications from surgeons practising in India were published in a special number of the *Indian Medical Gazette* showing that in that country the results of cataract operations are far more successful than in the European hospitals. It may be regarded as doubtful whether any English or continental surgeon has had, taking the good cases with the bad, 100 successful operations without a failure, yet in this remarkable collection the operators speak of 200 and even 300 consecutive successes. Lieutenant-Colonel T. H. POPE, I.M.S., in particular is able to point to an experience embracing 4000 cases and he has given an excellent account of the precautions to be adopted as well as of the mode of operating most likely to conduce to a successful result in cataract operations. Major H. HERBERT, I.M.S., records a series of 497 operations in which a solution of one part of corrosive sublimate in 3000 parts of water being freely applied complete exemption took place from grave infection. The results of other operators recorded in the same journal are scarcely inferior and fully justify the dictum of Professor FUCHS that the greater the operator's skill grows with practice the less frequently do unlucky accidents happen to him. The etiology of lamellar cataract as elucidated by a consideration of the dental lesions that are frequently associated with it has been discussed by Mr. NORMAN G. BENNETT, who shows that in many instances lamellar cataract is associated with a hypoplastic condition of imperfect development of the teeth and that both the dental and the ocular lesions are the results of the same general conditions—as, for example, of rickets, of convulsions in infancy, of exanthematous diseases, or of imperfect nutrition from insufficient or inappropriate feeding.

#### *Retina.*

Although it is well known that dilatation of the pupil can be excited by psychical stimuli as well as by strong electric stimulation applied to any part of the central cortex the observations and experiments of Dr. J. H. PARSONS seem to prove that in the absence of the usual dilator tracts through the sympathetic nerves dilatation of the pupil is due to inhibition of the tonic influence of the third pair of cerebral nerves.

The differences between the rods and cones of the retina are so marked that it is reasonable to believe that they

fulfil different purposes, and Mr. F. W. EDWARDS-GREEN has adduced various reasons for holding that whilst the rods liberate visual purple, the cones with the optic nerves receive and convey to the visual centre of the brain the impress of the chemical changes taking place in the retina. Dr. G. MARENGHI has observed that intracranial section of the optic nerve does not abolish the reflex action of the pupil to light probably owing to the existence of a peripheral reflex centre.

The injurious effects of tobacco and alcohol upon the eyes are well illustrated in a paper by Dr. C. E. FINLAY, who gives the results of his experience in the island of Cuba, where in the course of eight years' practice, during which he has had 4300 cases, he has treated 92 patients for trouble arising from these causes. The white race suffered more than the dark, and the failure of vision usually occurred between the ages of 30 and 50 years. The symptoms were pallor or atrophy of the temporal segment of the optic discs, diminution of visual acuity, and central scotoma at first for red and green and then absolute. Of the 92 cases 23 were acute, 48 were chronic, and there were 17 cases of partial and four of total atrophy.

Various cases of gunshot wounds of the head have been published by Mr. E. TREACHER COLLINS, Dr. J. S. HINNELL, Mr. E. NETTLESHIP, and others, the most important corollary from which is that where minus tension exists after a violent indirect injury of the eye, it is not necessary to assume that the lowered tension necessarily means wound or rupture of the globe.

#### *Bibliography.*

Amongst the more important works, besides those already mentioned, which have been published during the year are the following: "Essentials of Refraction," by E. JACKSON; "The Relations of General to Ophthalmic Disease," by GRUNOW and UHTHOFF; the second part of HIRSCHBERG'S "Introduction to Ophthalmology"; Dr. PERCIVAL'S "Periscopic Lenses"; "The Microscopic Examination of the Eye," by R. GREEFF; and the twenty-first volume of the Transactions of the Ophthalmological Society of the United Kingdom. To these need hardly be added the *Ophthalmic Review*, Dr. KNAPP'S *Archives of Ophthalmology and Otolaryngology*, and the numerous French and German periodicals which are store-houses of ophthalmological work and are sufficiently familiar to the diligent observer.

#### FORENSIC MEDICINE.

Of criminal trials during 1901 that of CZOLGOSZ for the murder of President MCKINLEY stands in bold relief. The murderer, an anarchist, mortally wounded his victim with a revolver shot. As we remarked in a previous number, Mr. MCKINLEY was singled out for vengeance "simply and solely because he represented government." The prisoner was convicted of the capital offence in the first degree, condemned, and electrocuted.

Of trials for murder in this country the most notable was that of HERBERT JOHN BENNETT which took place at the Central Criminal Court before the Lord Chief Justice. The prisoner, who was accused of feloniously slaying his wife at Yarmouth by strangling her with a boot-lace, had treated her with persistent neglect and cruelty. Beyond the long-evinced desire to be rid of what he looked upon as an incumbrance he had become engaged to a young woman and had arranged to marry her. This, it seems, was the immediate motive for the crime. A more deeply planned scheme for the execution of the fell design and for hiding the evidence of guilt has been rarely equalled. The prisoner expiated his offence by undergoing the extreme penalty of the law. It will be remembered that by writ of certiorari the venue of the trial was removed from the Norwich Assize Court to the Old Bailey in consequence of the representation that a fair

hearing might not be obtained at the former court on account of the strong local feeling against the prisoner.

At the same sessions, before Mr. Justice PHILLIMORE, GEORGE HENRY PARKER was convicted and sentenced to death for the murder of Mr. W. PEARSON on the South-Western Railway. The murderer and victim were unknown to one another. They chanced to travel in the same train. Whilst Mr. PEARSON was asleep PARKER shot him with a revolver and robbed him of his money. Premeditation undoubtedly there was, but not of the nature commonly presented in cases of wilful murder.

Mr. Justice PHILLIMORE also tried the case of MAUD EDDINGTON who was indicted for the alleged murder of her sweetheart, JOHN BELLIS, by shooting him with a revolver. The jury adopted the view put forward by her counsel, Lord COLERIDGE—viz., that BELLIS was shot accidentally whilst attempting to prevent EDDINGTON from taking her own life. For the latter offence she was sentenced to a term of imprisonment.

CHARLES WILLIAM BROWNING was convicted of having made a false representation of his death with intent to having the same registered contrary to the Act. The prisoner had been a medical student and thus had acquired the knowledge to simulate a case of acute Bright's disease, and successfully to impose upon a medical man, Mr. G. W. B. MARSH, who issued a certificate of "death from uræmia consequent on acute nephritis." We subscribed to the proposition that it should be mandatory on medical men not only to "certify the cause of death, but also to verify the fact of death."

At the Old Bailey a medical man was indicted for the murder of a married woman living apart from her husband by illegally procuring abortion upon her. The only direct evidence was furnished by the deceased in a dying declaration taken before a Justice of the Peace. At the trial Mr. Justice BRUCE ruled that the declaration was inadmissible, inasmuch as "it was not made in the settled hopeless expectation of immediate or almost immediate death." Upon this decision the prosecution was abandoned. Without strong corroborative evidence the testimony of the woman, an accomplice, would have been held no doubt by the jury as unconvincing.

At the Bristol Assizes a man and woman were convicted of having attempted to murder by illusage and starvation the son of the male prisoner, aged 11 years. The man was sentenced to 15 years' and the woman to five years' penal servitude. Arising out of the case the publisher of a weekly paper and a reporter, designated a "crime investigator," were sentenced to imprisonment in the second division for having interfered with the course of justice by publishing facts relating to the crime before the trial of the accused and thereby unfairly prejudicing their interests. The conviction was sustained on appeal to the King's Bench.

T. R. ALLINSON, ex-L.R.C.P., was summoned before Mr. CURTIS BENNETT for issuing obscene literature in the guise of "medical advice." He was bound over in the sum of £250 to come up for judgment if called upon and the "literature" was ordered to be destroyed.

The Sheffield Recorder heard a charge against two medical men—the one as principal and the other as abettor—for having certified that a child was stillborn, whereas it lived for 12 hours. The abettor was acquitted by the direction of the Recorder and the jury acquitted the principal of illegal purpose but found that he had been guilty of gross negligence.

A man named HENRY DAVIS was fined £20 and costs by Mr. CURTIS BENNETT for unlawfully assuming the title of "Dr."

Several civil actions of interest to the medical profession have been determined. In the case of CUNNINGHAM v. *The Daily Express* an action for libel was brought by the plaintiff

against the defendant for having published the statements that he advertised "a sham and pretended cure for consumption," and that he was a quack and charlatan. The jury marked their sense of justice by stopping the case whilst the defendant was giving his evidence.

A Mr. ROBERTSON sued a firm of druggists at Glasgow for damages, and the jury awarded him £700. Mr. ROBERTSON left some prescriptions with the defendants to be dispensed. Instead of a mixture an assistant sent a bottle of liniment containing chloroform, belladonna, and aconite. The plaintiff inadvertently drank some of the liniment to the serious detriment of his health. On the contention that the damages were excessive the court remarked that the defendants had two chances of correcting their mistake, of neither of which they availed themselves.

GWYNNE v. GREVILLE was an action for damages against the Medical Electro-Thermic Generating Company, Limited. The defendant, as manager of the company, had supplied to the plaintiff apparatus for the application of dry heat. It was contended on behalf of the plaintiff that she had suffered from burns owing to insufficient packing. The jury awarded a farthing damages. We took occasion to remark that a medical man should always personally supervise the application of powerful agents.

In the case of STOCKS v. CROSSMAN and WATSON the plaintiffs, medical practitioners, sued for payment of fees, whereas the defendant made a counterclaim for £250 for damages on account of disablement owing to the alleged carelessness and unskilful treatment of one of the defendants. As the amount of the counter-claim was over £50 the cause was removed from the County Court to the High Court. It was contended that one of the medical men had failed to diagnose a dislocation of the shoulder. To this he made answer that the luxation occurred at a time subsequent to the date of the alleged malpraxis. After a careful and lucid direction by Mr. Justice BRUCE the jury returned a verdict for the defendants. Costs were awarded on the High Court scale both on the claim and counter-claim.

On the subject of poisons we drew attention to an interesting case of poisoning by creasote recorded by Mr. H. M. HEWLETT in the *Intercolonial Journal of Medicine of Australia* on Oct. 20th, 1900. A girl, aged three and a half years, swallowed two drachms of the drug. The symptoms were abdominal pain, rapidly ensuing unconsciousness, pallor of the face, cyanosis of the lips, shallow respiration, imperceptible pulse, fixation of the eyes, contraction and immobility of the pupils, and flaccidity of the muscles. The stomach was washed out with warm water and with a strong solution of magnesium sulphate and one-twenty-fifth of a grain of strychnine was injected hypodermically. The urine was of a dark-brownish colour for several hours and then of a watery green. We directed attention to the fact that creasote was less caustic than, and did not cause convulsions like, carbolic acid.

In the Journal of the American Medical Association Dr. H. MOULTON related a case of poisoning by bay rum. The most important symptom was temporary blindness. This has been noticed in other cases where liquids containing large quantities of methyl alcohol have been swallowed—e.g., "Jamaica ginger."

A singular case of belladonna poisoning was related in our columns. A lady applied a belladonna plaster for muscular pains the result of excessive exercise and a chill. The symptoms were characteristic—dryness of the throat and mouth, dilatation of the pupils, and loss of power of controlling movements. Recovery was rapid and complete.

Fungus poisoning accounted for serious symptoms in three children who had eaten a fungus—probably agaricus—in mistake for mushrooms. In one of the patients there were twitching and grinning of the face and inability to speak. The nervous symptoms seemed to have occurred before, and

were in excess of, the alimentary disturbance. Recovery took place after vomiting had been induced by hypodermic injection of apomorphine.

Several cases of fatal poisoning by cocaine have occurred. In some the agent was taken in excess by misadventure, whilst in others there was obviously suicidal intent. The most painful instance of the latter was that in which two young ladies—actresses—resolved to die together in consequence of ill-health and the mental strain incidental to varying fortune in their exacting profession. It seems high time that the ease with which large quantities of cocaine can be obtained by the laity should be prevented.

Boric acid has had more than its due share of legal investigation. Convictions have been obtained for using the drug as a food preservative. At Morecambe a dealer was fined £20 and costs for selling three pints of shrimps which were mixed with boric acid in the proportion of 95 grains to the pound. As bearing on the commercial use of boric acid as a preservative of foods we have drawn attention to two cases of poisoning recorded by Dr. J. F. RINEHART in the *Therapeutic Gazette* for October. In the first case a man, aged 39 years, suffering from posterior urethritis, was given five grains of boric acid every four hours by the mouth. In two or three days he became very weak and vesicles formed on the back of the hands and between the fingers. The pulse was weak but not accelerated. The symptoms disappeared on discontinuance of the boric acid and reappeared when its use was resumed. In the second case a male, aged 50 years, upon whom suprapubic lithotomy had been performed, was given five grains of boric acid every four hours by the mouth, and a saturated solution was used to wash out the bladder. Cardiac depression followed and there was an erythematous rash about the wound and the lower part of the abdomen. In this case also the results disappeared when the employment of the acid was abandoned and reappeared on its resumption.

Again, unfortunately, we have had to chronicle numerous cases of chloroform toxæmia. A drastic procedure, but one which we felt justified in approving, has been introduced to avert disaster in cases in which the usual methods of restoration have failed. We refer to cardiac massage.

Dr. FREYBERGER, in *Treatment*, January, 1901, records a case in which the heart was exposed by dissection and compression applied to its walls. Although death ensued the heart continued to beat for nearly eight hours, but no natural respiratory movements occurred. Perflation of the lungs was in the meantime kept up.

At the Seamen's Hospital, Royal Albert Docks, a man, aged 42 years, succumbed to chloroform poisoning. Mr. J. CANTLIE cut down on the heart, opened the pericardium, and compressed the ventricles. The pole of a battery was applied to the heart. The treatment in this case seems to have met with little response. At the necropsy the heart and other viscera were found to be healthy.

#### DENTAL SURGERY.

One of the features of the past year has been the recognition by the War Office authorities of the value of dental services to the army. Four dental surgeons have already been sent to South Africa, and more appointments are shortly to be made, while at home a dental surgeon has been appointed to the forces stationed at Aldershot. It is most important that those appointed to these posts should be men qualified after curriculum and if possible also holders of a medical qualification. If the best men are to be obtained the appointments must be thrown open to competition and the merits of the various candidates decided by the authorities at the War Office with the aid of a dental practitioner.

The opening of the new buildings for the Royal Dental Hospital of London must be regarded as another feature of the past year. The building is all that can be desired

and the laboratories for teaching are replete with every modern appliance. Nothing, perhaps, brings home more vividly the great strides made in dental surgery during the last 30 years than a comparison between the buildings of the hospital in Soho-square in the early "seventies" and the present structure in Leicester-square.

#### Education.

Educational matters have received their quota of attention and one or two changes have been made in the English curriculum. Courses of instruction in dental bacteriology and materia medica have been added to the curriculum, while the final examination has been divided into two parts: (1) the general portion; and (2) the purely dental portion. The two parts can be taken together or separately. An association known as the International Dental Federation held its first meeting in Cambridge during August. The subject under discussion was the teaching of the dental student. For some reason those most interested and best qualified to speak on dental education in this country held aloof from the meeting. This is to be regretted because the views expressed by some of the English members were quite at variance with those held by the majority of regular teachers. It is very difficult for those unacquainted with the teaching of dental students to be able to formulate views of any value in dental education.

#### Papers.

Several interesting and suggestive papers have been contributed to the journals during the past year. The subject of the movements of the mandible has formed the theme of an interesting discussion and the papers contributed by Mr. C. S. TOMES, Mr. W. H. DOLAMORE, and Mr. T. CONSTANT have shown that it is by no means an easy task to demonstrate the exact movements which take place in opening and closing the mouth. Mr. KENNETH W. GOADBY has again added to our knowledge of the micro-organisms of the mouth; and his paper, published in the October issue of the *Journal of the British Dental Association*, shows that distinct advance is being made in the elucidation of the etiology of dental caries. Mr. T. G. READ's paper on the Chemical Changes Occurring in the Mouth during the Mastication of Bread composed of Roller-milled Flour opens up an important field for observation. His contention that roller-milled flour produces acid in the mouth much more quickly than does stone-milled flour is worthy of careful consideration and investigation. A suggestive paper on a case of Burrowing Epithelioma of the Alveolar Process was read before the Odontological Society by Mr. STANLEY W. R. COLYER. Mr. J. G. TURNER also brought before the same society the subject of the Relation of Simple Pedunculated Fibrous Epulis to Supernumerary Teeth. A valuable paper by Dr. C. LEE on Ulcero-membranous Gingivo-stomatitis appeared in *Dental Cosmos* of February. This paper is well worthy of careful perusal.

#### Operative Dentistry.

In operative dentistry a welcome advance has been made in the preparation of amalgam fillings. Porcelain inlays have attracted a considerable amount of attention and the method of preparing inlays has been improved. In the diagnosis of irregularities in position of the teeth the x rays have been more generally employed, but there is still room for improvement.

#### New Books.

Amongst the new publications of the year are to be noted: "Oral Sepsis as a Factor in Disease," by Dr. W. HUNTER; the second edition of "Diseases and Injuries of the Teeth," by Mr. MORTON SMALE and Mr. J. F. COLYER; the fourth edition of Mr. HENRY SEWILL'S "Dental Surgery"; "The Treatment of Mal-occlusion of the Teeth and Fractures of the Maxillæ,"

by Dr. ANGLE; the fourth edition of Dr. TALBOT'S "Irregularities of the Teeth"; the "Principles and Practice of Operative Dentistry," by Dr. J. S. MARSHALL; and the second editions of the American Text-books of Operative and Prosthetic Dentistry.

#### Obituary.

The death-roll for the year includes the name of Sir EDWIN SAUNDERS, who was for many years dental surgeon to Her late Majesty Queen VICTORIA. He took a great interest in the Dental Hospital of London and he will always be remembered by the scholarship which bears his name.—Mr. ROBERT HEPBURN passed away at the ripe age of 91 years. He was one of those who took part in the early struggles to obtain for dentistry a legally qualified position. He was one of the original surgeons to the Royal Dental Hospital of London and was the first lecturer on mechanical dentistry in the medical school.—The death of Mr. HENRY BARRETT has also removed another of the early pioneers of dental reform.—The dental profession in Canada, by the death of Dr. W. G. BEERS, has been robbed of one of its most able and enthusiastic workers. Dr. BEERS will be remembered in the field of sport as the father of lacrosse.

#### ANATOMY AND PHYSIOLOGY.

In the wide domain of biology innumerable naturalists and keen observers have each added their mites to the sum of human knowledge and it needs but to open the books which are issued by the many societies that have sprung up of late years to see how vast is the accumulation of facts that have been placed on record even in the short space of 12 months. The Ray Society, for example, has published a valuable monograph by Mr. ROBERT NEWSTEAD on the Coccidæ of the British Isles, known to gardeners under the common name of mealy-bugs and scale-insects, which are not the least injurious amongst the many foes of plants. The journals of the Linnæan Society again gives long descriptions of new species of many genera of animals and plants either collected in England or brought home from such remote regions as Funafuti, and the Tonga Isles, from the Andes, and from Japan. The Zoological Society's "Record of Progress" shows how much has been done to familiarise the inhabitants of these islands with strange and foreign animals previously known only by the statements of travellers. Amongst the most remarkable of these, though not as yet obtained in the living state because probably representing one of the last of the undescribed larger mammals on the earth, is the *Okopia Johnstonii* from the forests bordering the Congo.

The Hunterian Oration was delivered at the Royal College of Surgeons of England by Mr. N. C. MACNAMARA who took for his subject the advances that have been made of late years in our knowledge of prehistoric man, illustrating his discourse by the splendid collection of crania, commenced by JOHN HUNTER and continued by the successive curators of the museum, now in the possession of the College. Another important lecture—the Croonian—was delivered before the Royal Society by Principal LLOYD MORGAN, who selected for his subject visual sensation and described an attempt which he had made to frame a scale of visual sensation analogous to, and in correlation with, a scale of physical luminosity by means of rotating discs. The section of Anatomy and Physiology in the meeting of the British Medical Association at Cheltenham had the advantage of the presidential address being in the hands of Professor A. MACALISTER.

In September Lord LISTER opened a new and well-appointed anatomical department in the University of Glasgow, the erection of which is due to the liberality of the trustees of the late Mr. J. B. THOMSON, a well-known and wealthy ship-builder of that city. The University of Edinburgh has been equally fortunate since, in July, the

Hughes Bennett Laboratory of Experimental Physiology, founded by Mrs. COX as a memorial of the work of her father, Professor J. HUGHES BENNETT, was formally presented to the University. Mention must also be made of the munificent donation of £2,000,000 for the promotion of education in Scotland by Mr. ANDREW CARNEGIE. It may be noted in passing that the eightieth anniversary of the birthday of Professor VIRCHOW was the occasion of a large gathering of men representing many branches of science to do honour to the physiologist who first enunciated the important dictum of "*omnis cellula e cellula*."

The action of light on plants and animals has been investigated by M. C. FLAMMARION who has thus instituted a new department of science which he terms "radio-culture." His experiments show that in the case of the eggs of silkworms darkness is unfavourable and orange and red rays are favourable to development. Moreover, exposure to rays of light of different colours seems to exert a powerful influence on the production of the two sexes, for whilst in ordinary solar light the males and females issuing from a large number of eggs are about equal in number, or 50 per cent. of each, when exposed to clear or sky blue the proportion is 57 per cent. of males and 43 of females, deep violet gave 62 males to 38 females, orange 64 males to 36 females, and deep red 68 males to 32 females. The singular predilection of the *Anopheles* mosquito for dark colours has been noted by Dr. NUTTALL and for sounds by Mr. BRENNAN.

Dr. A. D. WALLER has made a series of interesting experiments on vegetable electricity, which show that even slight mechanical excitation of growing and tender plants as, for example, a vine shoot, is capable of rendering the excited spot electro-positive to unexcited parts, the electro-motive force amounting in some instances to as much as 0.02 volt. This current is abolished at high and low temperatures. Dr. WALLER also finds that the leaves of various plants, such as those of tobacco, begonia, and iris, are rendered electro-positive in that part on which light falls, as compared with unilluminated parts. Other papers and articles dealing with the relations of electricity with the living organism have been written by Dr. MAX OKER-BLOM, who in an elaborate article contained in PFLÜGER'S *Archiv für Physiologie* attempts to explain the phenomena of living beings as essentially the result of physical and chemical processes; by Professor H. BORUTTAU, who has studied action currents and the theory of nerve conduction; and by Professor BR. WERIGO, who also endeavours to explain the depressing action of the cathode on nerve conduction.

#### Nervous System.

At the Fifth International Congress of Physiologists, held in the summer at Turin, high honours were conferred upon Sir MICHAEL FOSTER in recognition of his work in founding the School of Physiology at Cambridge which now ranks amongst the foremost in the world for equipment, position, research, and work done. He was made perpetual president of the society and was presented with a complimentary address and medal. At this Congress an important paper was read by Professor C. S. SHERRINGTON, who with Dr. A. S. F. GRÜNBAUM has investigated the motor representation in the cortex of the brain in the anthropoid apes. Electric stimulation was applied in some cases and the removal of parts was practised in others, with the subsequent examination of degenerated tracts. The results obtained were that in these animals some modifications of the generally accepted disposition of the motor areas are required. The positions of these areas, for example, were shown to be all situated in front of the fissure of Rolando. The problem of mapping out the motor areas in the brain was attacked in a different way by Professor FLECHSIG, who gave his conclusions to the same meeting in another paper. The plan adopted by him, which has been followed out with

much success, was to investigate the order in which development as exhibited in the successive myelinisation of groups of nerve-fibres takes place. Another line of research which may lead to important results has been opened up by Professor J. N. LANGLEY, who has observed that nicotine and several other alkaloids stimulate certain parts of the nervous system whilst they are without action on others. Thus, whilst they stimulate the nerve-cells of the sympathetic ganglia they have no influence on the cells of the spinal ganglia, nor on spinal nerve-fibres, nor their endings. At the suggestion of Professor A. VAN GEHUCHTEN, one of his pupils, A. LUBOUSHINE, has followed out degenerative changes occurring after lesions of the spinal cord. Amongst other results he finds that the fasciculus of Gowers is composed of two sets of fibres, one originating in the cells of the grey substance of the posterior cornu of the same side, and the other in the corresponding cells of the opposite side. Professor VAN GEHUCHTEN has himself carefully examined the ascending lateral columns, whilst FRITZ DE BEULE describes the degenerative processes in the cells of the hypoglossal nucleus after tearing away the hypoglossal nerve. In a paper read before the Parisian Academy of Sciences M. LAPIQUE gave the results of numerous experiments which he had made on different races in the course of a voyage round the world to determine the reaction time of the nervous centres to stimuli, which he found to be in the following order: Europeans, 0.15 second; Andaman Islanders, 0.19 second; Hindoos, 0.22 second; poor of Paris, 0.18 second; students, 0.15 second; and three Paris workmen, 0.17 second. N. MISLAWSKY of Kasan has shown that stimulation of the centrum tendineum of the diaphragm or of the peripheric extremity of the cut phrenic nerve is followed by arrest of the respiration in the expiratory phase, providing the vagi are intact. Much information in regard to the innervation of the skin in man will be found in an article by Dr. A. LEONTOWITSCH in the *Internationale Monatsschrift für Anatomie und Physiologie*.

In most of the text-books in which the subject is mentioned at all the inexcitability of the grey matter of the spinal cord is accepted on the authority of SCHIFF and BROWN-SÉQUARD, but M. VITZOU, in a paper read before the Paris Académie des Sciences, stated that in the horse he had satisfied himself that the grey matter exposed on the floor of the fourth ventricle responded to electrical stimulation. With the able coöperation of Dr. F. W. MOTT, researches into the effects of Wallerian degeneration upon the chemical composition of nerves have been carried out by Dr. W. D. HALLIBURTON, who has found that choline, a toxic substance, and phosphoric acid were prominent and early-appearing products. The question of the presence or absence of vaso-motor nerves distributed to the cerebral vessels has generally been answered in the negative, and the numerous experiments of Mr. LEONARD E. HILL and of Dr. J. J. R. MACLEOD support this view, for they have found that the circulation in the brain passively follows every change, however slight, either in arterial or venous pressure. At the same time they think that it would be rash to deny altogether the existence of such nerves, notwithstanding that the vessels of the brain behave, both in regard to the influence of asphyxia and to the intravenous injection of suprarenal extract, in a very different manner from those of the fore-limb. On the authority of Dr. JOHN REID it has been very generally maintained that section of one vagus was dangerous to life, but that section of both these nerves was invariably fatal owing to loss of sensibility of the glottis and to the occurrence of pneumonia as a result of the entry of foreign bodies into the lungs. Two Russian physiologists, however, P. KATSCHKOWSKY and Professor J. P. PAWLOW, have kept dogs alive for many months after section of both nerves by taking the precaution to make a gastric or an œsophageal fistula through which the animal was

fed on appropriate and carefully selected diet, whilst putrefactive processes were at the same time prevented by washing out the contents of the stomach soon after digestion was completed. NICOLAIDES of Athens found also that dogs survived double division of the vagus, provided some days were allowed to elapse between the division of the two nerves. The intestine was noticed to be the vulnerable part in these animals, the smallest injury in this region leading to death.

#### *Organs of Digestion.*

The topography of the thoracic and abdominal viscera was the subject of a discussion at the meeting of the British Medical Association at Cheltenham, following the reading of a paper of great value by Professor CHRISTOPHER ADDISON on that subject.

Whilst many analyses have been made to determine the amount of nitrogen and of fat contained in the feces few have been directed to determine the presence and quantity of starch. Dr. J. STRASSBURGER has attempted to supply this hiatus by estimating the quantity of sugar that can be formed from the feces, but upon a mixed diet he finds that only a small quantity of sugar can be obtained, showing that in man starch undergoes nearly complete digestion and absorption in its passage through the alimentary canal. The researches of Professor A. HERZEN on digestion show first that dextrin is a powerful pepsin-forming substance, whilst extract of meat is chiefly though not exclusively useful in producing an abundant secretion of gastric juice and thus promoting digestion of other substances. He also finds that the spleen generates as an internal secretion a material not yet isolated which has the property of converting protrypsin into trypsin. The effects of extract of pancreas in converting casein into metacasein, which is recognised by its coagulability on boiling, is due, according to Dr. H. M. VERNON, not, as Sir WILLIAM ROBERTS thought, to trypsin, but to rennin. The gaseous metabolism of the submaxillary gland, which has only once before been investigated—namely, by CHAUVÉAU and KAUFMANN in the horse—has been the subject of careful examination by Mr. JOSEPH BARCROFT. The results show that during the secretion of saliva induced by stimulation of the chorda tympani both the oxygen taken from the blood and the carbonic acid given off are three or four times greater than in the resting gland, and they show in addition that on paralysing the secretory activity of the gland with atropin the intake of oxygen is not increased on stimulation of the chorda tympani, whilst, for a time at least, the output of carbonic acid is greatly increased. Measurements have been made by Dr. A. L. GILLESPIE which serve in some measure to account for the astonishing differences in the quantity of food consumed by different persons, his examinations of the capacity of the stomach showing extremes of two ounces and 160 ounces.

Any contribution to our knowledge of the process and activity of absorption by the intestine is to be welcomed on account of the frequency with which life has to be maintained by means of nutritious enemata. Dr. FELIX REACH, employing solutions of albumose and of gelatin with and without the addition of common salt, has shown that the absorption of these substances takes places with much greater rapidity in the small than in the large intestine. Gelatin solution is absorbed in the large intestine with greater difficulty than a solution of albumose, but the addition of (0.7 per cent.) solution of common salt to the gelatin solution equalises them, but if salt be added to the solution of albumose in excess it interferes with absorption and by irritating the mucous membrane may altogether prevent absorption. When gelatin solution is used as an enema common salt solution of the above strength may with advantage be added to it. In the small intestine albumose-solution

is absorbed more rapidly than gelatin-solution, the addition of common salt proves of no service in case of the gelatin, whilst if mingled with the albumose it sets up irritation. Various experimenters have shown that fat is absorbed with great difficulty in the large intestine unless in a state of fine division which suggests that the condition of emulsions when employed as nutritive enemata should receive particular attention.

The experiments that have been made on alcohol will be a source of satisfaction to abstainers, though they will probably have little influence in diminishing its consumption. The value of alcohol as a food in the case of a dog of moderate size was the subject of experiment lasting for a whole year by M. A. CHAUVÉAU, who finds that whilst alcohol rapidly enters the circulation it participates in a very slight degree only in the combustions from which the muscular system draws the energy requisite for its work. It is not an aliment in any sense of the word, and even when the economy is quite saturated with it it is unable to be utilised, either by the tissues in repose or by the muscles in action. Experimenting with guinea-pigs M. L. ROOS is only able to say that the administration of a certain quantity of wine equal to what would be two litres for a man per diem did neither good nor harm; whilst Herr C. RADZIEKOWSKI finds that alcohol is not a pepsin-former, but that it promotes the secretion of gastric juice if introduced into the stomach and to a small extent, but still perceptibly, if injected into the rectum. In the frog Professor LEE and Dr. W. SALANT of New York found that minimum doses of alcohol had no effect; moderate doses, from one to four minims of a 10 per cent. solution of alcohol in water per gramme of body-weight, greatly augmented the amount of work done, whilst large doses reduced it. The gastric ferments have been investigated by Dr. ALEXANDER WINOGRADOW, who regards the lab-ferment or chymosin to be the main agent in the reconversion of the soluble and easily osmosable peptones into the albumins found in the blood. Trainers will read with interest an article in PFLÜGER'S *Archiv für Physiologie* upon Diet in Training by Dr. H. LICHTENFELT, in which he shows how surprising is the amount of food required or, at least, taken by men in training, for whilst the average man doing a fair day's work requires 140 grammes of proteids, 100 grammes of fat, 350 grammes of carbohydrates, and in addition salt and water, the football team of California University consume daily 270 grammes of albumin, 416 grammes of fat, and 710 grammes of carbohydrates—a truly colossal amount.

#### *Blood Organs of Circulation.*

The number of blood platelets in a cubic millimetre of human blood has been counted by Mr. G. KEMP and Miss H. CALHOUN, who find that it varies from 730,000 to 961,500. They were unable to satisfy themselves that the platelets contain hæmoglobin or that they develop into blood corpuscles. The seasonal and periodic changes in the proportion of corpuscles in the blood of the frog have been studied by GAULE with the astonishing result that the male of the ordinary frog (*Rana temporaria*) may have at one time 1,200,000 blood corpuscles per gramme of body-weight and at another 24,000,000 or even 35,000,000. Do variations of a similar kind occur in the higher animals? The subject seems to be one that is worth pursuing. Professor WERIGO and one of his pupils, L. JEGUNOW, have made some curious observations on the effects of injecting into the blood fluids containing various kinds of bacteria. A few minutes after the injection a very great diminution in the number of the leucocytes occurs and especially of the polymorpho-nucleated leucocytes which retreat into the lungs, liver, and spleen. Here the foreign particles are brought into close relation with the leucocytes and an active process of phagocytosis takes place and in these

hiding places the strife between the leucocytes and bacteria is vigorously conducted. Professor ARTHUR GAMGEE concludes from his experiments that hæmoglobin is, as FARADAY stated, decidedly diamagnetic. The same is true for carbonic oxide-hæmoglobin and for methæmoglobin, whilst the iron-containing derivatives hæmatin and acethæmatin are powerfully magnetic, the difference, as he remarks, pointing to the profound transformation which occurs in the oxyhæmoglobin molecule when it is decomposed in the presence of oxygen. The experiments of Privat-docent POPIELSKI on the innervation of the pancreas show that the secretion is essentially under the control of the nerve ganglia distributed through the gland, which act in a reflex manner in cats and dogs without any participation of the central nervous system, since it continues after the ablation of the whole length of the spinal cord below the medulla oblongata and section of both vago-sympathetic nerves. Dr. F. S. LOCKE and Dr. G. F. GÖTHLIN have both succeeded in perfecting arrangements by which excised hearts can be kept beating for a considerable period. In the rabbit Dr. LOCKE preserved the heart in an active condition for one or two hours and on adding a tenth per cent. of grape sugar for no less than seven hours. The great importance of the thyroid body, formerly thought to be an almost useless appendage, is becoming constantly more obvious. Dr. A. BALDONI of Rome has experimented on the exchange of gases in dogs after its extirpation and finds that operation to be always followed by disease and death. Its removal lowers the processes of oxidation in the system to a remarkable degree. He regards it as an organ of fundamental physiological significance.

The various circumstances which may lead to the appearance of sugar in the urine have been discussed in a masterly manner by Dr. F. W. PAVY. The characters of pale or aplasmic muscles as compared with red or plasmic muscles have been studied by Dr. JOHN HAY of Liverpool, who finds that the pale muscle-fibres are larger on section than the red, less liberally supplied with blood, and possess a smaller number of nuclei. The duration of the contraction is much shorter, but is of greater height. The importance of suggestion and anticipation in the performance of muscular work has been shown by CHARLES FÉRÉ. The heat developed by muscle has been studied by MAGNUS BLIX who finds that it runs parallel with contraction.

A subject of general as well as of special physiological interest is a paper read at the Cheltenham meeting of the British Medical Association by Mr. T. S. ELLIS of Gloucester, on the Physiology of the Lower Limb and the Military March. Mr. ELLIS considers that the position of the foot taught and practised in the military march is an improper one, and that in place of it a position directed forwards, or forwards and a little inwards, should be substituted. Whether Mr. ELLIS be correct in his views or not, the subject is one that it would be well for military surgeons to reflect upon and to be guided by the light of experience. Carefully-devised experiments on several students by ZUNTZ and SCHUMBERG show that the German regulation weight to be carried by the soldier of 48 pounds approaches the limits of endurance when the distance traversed is 15 miles. The addition of a few pounds led to fall of blood-pressure, and, if the march was persisted in, to acute dilatation of the heart.

If the spermatoxic serum of the guinea-pig be injected into a male white mouse, says Mlle. C. DE LESLIE, the animal loses the capacity for reproduction for a period varying from 16 to 20 days, and if repeated the animal is sterile for another like period. The spermatozoa have lost their fertilising power without losing their motion or the animal its health. The cause of this is probably, she thinks, owing to the toxic matter fixing itself on the surface of the spermatozoa and their modifying osmotic relations.

Amongst the more important treatises on biology and the

branches of knowledge included under that term are those by the following authors: on zoology, by ADAM SEDGWICK, G. P. MUDGE, E. W. MACBRIDE and A. E. SHIPLEY, E. A. MINCHIN, G. H. FOWLER and G. C. BOURNE, and D. H. GADOW; on anatomy, by DEAYER, POIRIER, and CHARPY HEULE; on physiology, by HALLIBURTON, HALL, BUNGE, ROSENTHAL, LAULANIÉ, VERWORN, STARLING, and RAYMOND; on histology, by STÖHR, NICHOLS and VALE, LANGLEY, and GREEFF; and on embryology, by KORSCHLDT and HEIDER.

#### ANÆSTHETICS.

##### *Physiology of Anæsthesia.*

The physiology of anæsthesia, which after all must go before all improvements in technique, apparatus, and methods, has during the past year received much attention and has been enlightened by some important papers. In THE LANCET as long ago as Feb. 1st, 1896 (p. 279), attention was drawn to the importance of studying the effects of anæsthetics upon the blood corpuscles. It was pointed out that many of the results of narcotising agents are probably due to such effects. In the September number of the *Annals of Surgery* CHALMERS DA COSTA and F. J. KALTEYER contribute a careful paper upon this matter. The subject has, of course, several sides. If there is a marked destruction of red corpuscles and a diminished amount of hæmoglobin not only will the tissues suffer but there must be a distinct loss of oxygen absorption and of oxygen deportation to the nerve centres. The researches of J. LORRAIN SMITH and J. HALDANE have shown that the oxygen capacity of blood corpuscles varies within fairly wide limits and we have yet to learn how far the introduction of anæsthetics into the blood affects this oxygen capacity. Although not answering this important question DA COSTA and KALTEYER supply information which has a direct bearing upon it. They attempted as far as possible to test the various factors at work in producing blood-corpuscular changes in patients who after due preparation are operated upon and recover, and their results are interesting. They, however, give evidence in the case of only one anæsthetic—namely, ether. BIERFREUND, whose work MIKULICZ published, found a hæmoglobin destruction of from 5 to 10 per cent., and speaking of the same anæsthetic T. OLIVER and F. C. GARRETT came to the conclusion that under its influence the blood and the tissues became deoxidised, but it is not clear how far the destruction of corpuscles was in their view responsible for such a condition. They believed that the quantity of waste materials so produced constituted a danger. DA COSTA and KALTEYER in their last research, however, point out that the purgation and fasting of the patient before the anæsthetic must tend to “inspissate” the blood. They found on counting the red corpuscles in 50 cases polycythæmia, rarely oligocythæmia—due, they believe, to lessening of the total volume of the liquor sanguinis arising from pre-anæsthetic preparation and, in the case of ether, from profuse sweating during the anæsthetic stage. The concentration and departure from the normal standard of the corpuscles soon disappeared upon withdrawal of the anæsthetic. They found further—and this is a point of great practical importance—that the hæmoglobin is reduced absolutely in amount. The individual corpuscular hæmoglobin value is distinctly lessened. Thus it would appear that destruction of red cells is followed by the appearance of cells imperfectly supplied with hæmoglobin. “We must conclude,” the observers say, “that etherisation produces increased hæmolysis.” Admitting that the duration of the anæsthetic state, as well as the amount of ether inhaled, may produce blood changes, there are so many other factors at work that, as is pointed out, we are without any very exact gauge of the degree in which the duration and amount of the anæsthetic influence such changes. One factor—the method by which induction and maintenance

of anæsthesia are brought about—is omitted, the *quasi*-open plan often pursued in the United States and on the continent is certainly likely to produce different results in different hands, results hardly comparable with those consequent upon the use of closed inhalers. It is further noted that hæmorrhage did not appear to affect the blood state. This is probably explained by the fact that in DA COSTA and KALTEYER'S cases few involved severe bleeding. The outcome of this research may be of practical value to the surgeon. It is suggested that the blood should in all operation cases be examined and if the hæmoglobin is found to have fallen below 50 per cent. operation under general anæsthesia involves grave risks. HAMILTON FISH, who has worked on similar lines, confirms this view. R. C. CABOT, whose research on Clinical Examination of the Blood is well known, has also, in collaboration with Dr. J. B. BLAKE and Dr. J. C. HUBBARD, investigated the effect of anæsthetics on the blood in surgical practice and tabulated a number of cases. These observers find slight leucocytosis after complete anæsthesia is produced and, further, in half the cases a considerable increase of white cells after operation. In contravention of the statement of BIERFREUND<sup>1</sup> they found that a perfectly normal and rapid regeneration of blood-cells ensued after operations for malignant disease. It seems certain, then, that some positive effect is produced by anæsthetics upon the blood-cells; what the effects of various anæsthetics may be when compared has yet to be determined, and it is not a little important to ascertain further what changes, if any, are brought about by these bodies upon the somatic tissues. In this connexion the case recorded by J. NICOLAYSEN<sup>2</sup> may be quoted. The patient suffered for a week, after inhaling 40 grammes of chloroform, from hæmatoporphyrinuria due, NICOLAYSEN believed, to destruction of red blood corpuscles in the liver consequent upon the chloroform. A valuable contribution to our knowledge has been made by Dr. HAMILTON WRIGHT, the director of the Pathological Institute of the Federated Malay States.<sup>3</sup> He gave chloroform, and in some cases ether, to rabbits and dogs for various lengths of time under precautions as to maintenance of temperature and then studied the neurons to discover what changes, if any, were produced in the nervous system by anæsthetic agents. We can only give his conclusions briefly although they are of far-reaching importance. Rabbits, which are extremely easily affected by anæsthetics, showed distinct neuronal changes—mainly rarefactive—and these were proportional to the length of time during which the animals were subjected to the vapour. That in the most marked cases a “pseudo-degenerative” change was found is extremely interesting, as STRASBOURG, FISCHER, and THIEM have found in the case of chloroform degenerative changes in the muscular and visceral protoplasm. In rabbits, again, moniliform enlargements of the dendrons of a degenerative character were seen and the process extended in longer experiments towards the cell bodies. Dogs, on the other hand, showed no changes until after two hours and even then the changes were less marked than in the case of rabbits. Dr. WRIGHT points out that this is probably because the neurons of dogs are less affected by drugs and the inference is possibly admissible that those of human beings are still less assailable. Dr. WRIGHT makes out a strong case in favour of these changes being of a bio-chemical (nutritional) rather than of a bio-physical nature, and dismisses LUGARO'S denial that moniliform enlargements do occur by pointing out that the latter's experiments were apparently not carried on for a sufficiently long time. It should be noted that neither anæmia nor venous congestion of the nerve-tissues appears to have had any causal relation with the changes noted by Dr. WRIGHT, and, further, that these changes were more pronounced when

<sup>1</sup> Langenbeck's Archiv, vol. xli.

<sup>2</sup> Norsk. Mag. f. Lægevidensk., lxi., p. 24, January, 1901.

<sup>3</sup> Journal of Physiology, December, 1900, and April, 1901.

chloroform was employed than when ether was given. It is of considerable practical importance to observe that when the dogs were subjected to very prolonged anaesthesia (six hours) the cells rapidly developed pathological changes, the nuclei and nucleoli were affected, and the progress of such changes was much more rapid during the concluding hours of prolonged anaesthesia than during the initial period—e.g., greater between the sixth and ninth than during the first six hours. The changes noted were, however, not permanent. Even after nine hours of ether narcosis the nerve-tissue was found to have become practically normal within 48 hours. Some important work has also been done upon the effects of anaesthetics upon the mammalian heart by Dr. J. A. MACWILLIAM, but before giving his results we will draw attention to some especially interesting results obtained by Dr. T. G. BRODIE and Dr. A. E. RUSSELL illustrative of reflex cardiac inhibition. It has frequently been asserted that under chloroform and during incomplete anaesthesia strong peripheral stimulation—such as the pulling out of a tooth or dragging upon abdominal viscera and other structures—is liable to inhibit the heart, and in the case of an asthenic heart a permanent breakdown of the circulation may result. This has, of course, been denied by other observers, so that the recent work of Dr. BRODIE and Dr. RUSSELL becomes doubly important. The experiments were performed chiefly with the A.C.E. mixture, some with urethane.<sup>4</sup> It was found that electrical excitation of central ends of branches of the vagi produced inhibition. The pulmonary branches gave the most pronounced reaction. The connexion of the respiratory tract appeared to be very close with the cardio-inhibitory centre. Stimulation of the nasal mucous membrane arrested the heart, as did that of the laryngeal mucous membrane, although in the last case less reaction occurred and in that of the tracheal and bronchial mucous membrane no response was obtained. It is noteworthy that stimulation of the alveolar nerves gave a reaction as active as that of the laryngeal mucous membrane. Mechanical and chemical stimulation produced similar results. Stimulation of the pulmonary nerves also produced an effect upon the respiratory and vaso-motor centres causing arrest of breathing and fall of blood-pressure. All these effects were abolished after section of the pulmonary nerves. The practical value of this work is great, but it leaves us in doubt as to whether stimulation of the pulmonary nerves during profound anaesthesia will produce as pronounced an inhibitory effect as when the narcosis is of a lighter degree. It is commonly believed that such reflex cardiac inhibition is a danger of imperfect anaesthesia; is it also one of profound narcosis? Dr. MACWILLIAM'S researches upon the mammalian heart have been given to the profession from time to time and much importance has justly been paid to his statements that one of the constant phenomena of chloroform narcosis is a gradual dilatation of the heart. The last contribution deals with the causation of changes in the pulse-rate under chloroform and throws some light upon the query we made above in that it considers the effect of light and profound narcosis upon the vagal centre. The pulse-rate at first passes through a phase of acceleration, which is followed by one of slowing, the former rate being apparently due to diminution in the activity of the vagus centre as section of the vagi prevents its appearance. The retardation appears to be due to two causes: increased activity of the vagus centre and a slowing influence upon the heart itself, and not to changes in the respiration or blood-pressure. At a certain stage of chloroform anaesthesia the vagus centre becomes very sensitive and is prone to be affected by peripheral stimuli. This stage no doubt finds a counterpart in the chloroforming of human beings and must be of special danger. Sudden arrest of

respiratory movements leads to slowing and irregularity of the pulse. During light narcosis slowing, often slight, is followed by acceleration and marked convulsions. In deeper narcosis acceleration occurs with respiratory effort and motor excitement. In profound narcosis little change occurs at first, then retardation, but no convulsion.

#### *Local Anaesthesia.—Intra-spinal Cocainisation.*

The remarkable paper of BIER in which he detailed the effects of injecting weak solutions of cocaine into the spinal canal by means of a syringe introduced between the fourth and fifth lumbar vertebrae was followed by a long series of reports of operations performed under "Spinal Cocainisation." TUFFIER,<sup>5</sup> whose work in this direction has called forth much comment, has pursued this plan with enthusiasm if not with unqualified success. In the columns of THE LANCET<sup>6</sup> the technique of the procedure was fully set forth, and due credit was rendered to CORNING, the American physician who was the first to suggest it. But as the method has become more seriously studied its dangers have forced themselves more prominently into notice. Independently of the obvious and terrible perils of intra-spinal hæmorrhage and sepsis which the advocates of spinal cocainisation assert can be completely obviated by care, there have already been reported severe after-effects, such as vertigo, prolonged paraplegia, paralysis of the sphincters, intolerable sickness, headache, rise of temperature, and collapse, which appear to be not only grave but persistent in character. RECLUS, a warm advocate of local anaesthesia, sounded a warning at a meeting of the Academy of Medicine of Paris in March about intra-spinal cocainisation, and detailed some alarming experiences and referred to deaths reported by HUMBERT, DUMONT, JONNESCO, and KING. DUMONT'S paper<sup>7</sup> should be read in this connexion. ENGELMANN of Bonn found that eucaine not only produced the same unpleasant sequelæ as cocaine, but failed to induce analgesia, but trials with tropacocaine have in the hands of SWANN<sup>8</sup> proved more promising. MEYER has also used tropacocaine and speaks well of it. GOILAV has warned against the method in old men with senile obliterating arteritis, having met with one death and one very nearly fatal experience. A considerable number of papers have appeared in continental journals about this subject, but as they do not throw further light upon the technique or question of safety they need no special mention. An experience of HERMAN MYNTER is, however, worthy of note. Having produced analgesia by intraspinal injection he performed an extensive operation for hernia, and violent explosive vomiting commenced which caused the intestines to protrude. He speaks of "evisceration," and as the patient watched the proceeding MYNTER justly regarded the scene as a terrible one.

RICHARDSON, an American physician, reports having visited TUFFIER'S clinic. He came away deeply impressed by the skill of the surgeon and the peril of the method. He speaks of the patients being more dead than alive. HARE of Philadelphia<sup>9</sup> says: "I might say of my own observations of intra-spinal injection as an anaesthetic that it will soon be regarded as a medical curiosity." This adverse criticism is called forth by the dangers which he believes to exist in the method.

#### *General Anaesthetics.*

During a discussion before the College of Physicians of Philadelphia papers were contributed on Heart Disease and Anaesthetics in Surgery. FINNEY sums up his views by saying that he regards the dangers of anaesthetics as arising from the want of experience of the average medical man in

<sup>5</sup> L'Analgesie Chirurgicale par Voie Rachidienne, Paris, 1901.

<sup>6</sup> THE LANCET, Jan. 12th, 1901, p. 137.

<sup>7</sup> Correspondenzblatt für Schweizerische Aerzte, October, 1901.

<sup>8</sup> Centralblatt für Chirurgie.

<sup>9</sup> American Journal of the Medical Sciences, August, 1901.

<sup>4</sup> Ibid., vol. xxvi., p. 92.

making a judicious selection of the requisite anæsthetic, and lack of knowledge as to how to avoid dangers or to treat such as might arise during the anæsthesia. He urged the necessity of systematic teaching of the subject in the American colleges and the appointment of men with special knowledge to work as anæsthetists in the American hospitals. A. STENGALL'S<sup>10</sup> opinions on the subject are worthy of notice. He points out that there is evidence to show that many of the deaths of patients with heart disease which occur are due not so much to actual poisoning of the heart muscle as to its asthenic condition, rendering it unable to combat the additional strain imposed upon it during the taking of the anæsthetic and conduct of the operation. He believes that many of the post-operation deaths are due to shock to the nervous system which cause basal pneumonia, gastro-duodenal disturbances, embolism, and so on. On the same subject we must notice the remarks made by MAYO who collected a number of cases of heart disease in which anæsthetics were given. He mentioned three deaths, one from chloroform on the table, one from ether occurring some time after the operation, and one from cocaine infiltration, and institutes an instructive comparison. The views of HARE must always carry weight, and his able paper on the Safest Anæsthetic to Use in Organic Diseases of the Heart and Vessels deserves careful study.<sup>11</sup> Admitting ether to be the least dangerous in all save advanced vascular disease and even advocating its use in cases of Bright's disease, HARE very justly points out that the quantity given and the actual amount inhaled are important factors in estimating danger. He advises the employment of atropine to prevent the liability of ether to produce pulmonary complications. W. REINHARD<sup>12</sup> has also contributed a note on this use of atropine, which he injects three-quarters of an hour before giving the ether inhalation.

#### *Complications of Anæsthesia.*

While noticing the references to the complications of anæsthesia we may refer to a paper by LEWIN<sup>13</sup> in which he points out that the severe vomiting after anæsthetics is due to irritation of the endings of the vagus in the coat of the stomach and suggests anæsthetising the mucous membrane by a preliminary cocainisation followed by giving mucilage of acacia or tragacanth or Irish moss to protect the surface from irritation. Whilst on this subject we may refer to the suggestion of KUDER and others to give chloretone before chloroform or ether, with a view to obviate nausea and vomiting. PRUS'S method of heart massage in cases of chloroform poisoning was noticed in THE LANCET, but his original paper<sup>14</sup> and that of PETERSON<sup>15</sup> should be consulted.

#### *Methods.—Mixtures.*

GLEITMAN contributes a paper<sup>16</sup> advocating the use of bromide of ethyl, and WILLY MEYER, dealing with this anæsthetic, warns against its use in anæmic children. ROSENBERG, speaking from some experience, believes that even delicate children take it well, and quotes MORGANTHAU'S statement that it is less depressing than chloroform, although where it kills it does so through depression of the circulatory system. E. ADAMS<sup>17</sup> gives a favourable opinion of a chloroform (43 parts) and ether (47 parts) mixture which he states has been used extensively. He found that 40 cubic centimetres lasted for an hour. The mixture, or rather solution, introduced by SCHLEICH, and other mixtures, receive attention in a careful paper by SELBERG,<sup>18</sup> while

HENLE contributes an important communication to LANGENBECK'S *Archiv* on Post Operative Pneumonia, which deals *inter alia* with the question as to how far the anæsthetic bears a causal relation to the lung complication. R. J. PROBYN-WILLIAMS, in a communication made to the Society of Anæsthetists, discussed favourably his experience with the Wertheim mixture,<sup>19</sup> a solution of ether and chloroform similar to that devised by SCHLEICH. H. BRAUN<sup>20</sup> states that if ether is used with chloroform, the mixture of their vapours being effected by an apparatus which he describes and which is essentially a "two-bottle method," no bad effects result. The vapours are obtained as a kind of spray which enters a metal mask. The administrator can regulate the amount of chloroform that he employs and the free dilution of the ether vapour obviates, BRAUN contends, all liability to ether complications.

#### *Education in Anæsthetisation.*

Certainly the most important political event in the section of anæsthetics has been the effort which has been made to render the teaching of anæsthetics compulsory upon all medical students. THE LANCET has more than once insisted very strongly that this should be done, and DUDLEY W. BUXTON, in an address to the Society of Anæsthetists, pointed out that such a course is not only desirable but a necessity if medical men are to keep in the van of scientific knowledge of their profession. MITCHELL BANKS, in a powerful paper dealing with his long experience of anæsthetics, lays down as one of the most important means of lowering the mortality from anæsthetics the systematic teaching of the use of such agents. Although at present the General Medical Council has taken no steps to include anæsthetics in the curriculum, the Royal Colleges of Physicians of London and Surgeons of England, as mentioned in THE LANCET, have, it is understood, determined to include anæsthetics as a subject with regard to which students will be obliged to furnish evidence of their knowledge. The University of London has also recognised as teachers those anæsthetists whose lectures and demonstrations have satisfied their governing body. In the columns of THE LANCET have appeared articles dealing with the statistical inquiry which was instituted by the British Medical Association subsequently to the exhaustive report which THE LANCET itself issued. The report of the British Medical Association focussed the teaching of the various schools and furnished an additional proof of the need for systematic instruction in the use of anæsthetics.

#### MIRROR OF HOSPITAL PRACTICE.

MANY cases illustrative of the present state of hospital treatment have appeared during the past year in the columns devoted to the "Mirror of Hospital Practice."

#### *Berger's Operation.*

Complete removal of the upper extremity including the scapula and half the clavicle is an operation of the first magnitude. Its success is in great part to be attributed to the device introduced by BERGER, after whom the operation is named, of commencing by dividing the clavicle and ligaturing the subclavian artery as it lies on the first rib. This reduces the hæmorrhage to moderate proportions, and if precautions against sepsis be adopted the mortality is kept at less than 5 per cent. Mr. H. W. PAGE has contributed two cases in which this operation was performed for sarcoma of the shoulder, and so far as the operation itself was concerned both cases were successful, though one patient died later from a secondary growth.

#### *Cæsarean Section.*

The mortality from Cæsarean section in suitable cases

<sup>10</sup> *Ibid.*

<sup>11</sup> *Op. cit.*

<sup>12</sup> *Centralblatt für Chirurgie*, March 16th.

<sup>13</sup> *Deutsche Medicinische Wochenschrift*, Jan. 3rd.

<sup>14</sup> *Wiener Klinische Wochenschrift*, October, 1900.

<sup>15</sup> *Hospitalstidende*, Band 8, No. 47, 1900.

<sup>16</sup> *New York Medical Record*, Nov. 2nd.

<sup>17</sup> *Medical News*, Feb. 9th.

<sup>18</sup> *Archiv für Klinische Chirurgie*.

<sup>19</sup> *THE LANCET*, March 23rd, 1901, p. 864.

<sup>20</sup> *Münchener Medicinische Wochenschrift*, May 14th, 1901.

is low, and two instances in which this operation was performed successfully by Dr. G. E. HERMAN were recorded during the year. In one case the obstruction was due to a very rickety pelvis, and in the other to a uterine fibroid which filled the pelvic cavity. We have also published a third case under the care of Dr. THOMAS OLIVER and Mr. RUTHERFORD MORISON; in this instance the operation was performed in the eighth month of pregnancy on account of extensive malignant disease of the cervix, and after the child was removed total hysterectomy followed. The operation was completely successful, both mother and child surviving.

#### *Intussusception.*

We have published several cases illustrating the value of operation in intussusception. In one case Mr. C. WHIPPLE operated on a child, two years old. In another case, under the care of Mr. C. J. SELLS, the age of the patient was four months. In the case of a patient nine months old, under the care of Mr. THOMAS BRYANT, the intussusception was double, one being retrograde. In all these cases the patients recovered, and excellent examples of the value of operation were thus afforded. Dr. W. J. MAURICE's case was that of a woman, 23 years of age, and the intussusception was apparently caused by the presence in the bowel above of numerous polypoid growths which were only discovered at the necropsy. Mr. H. W. ALLINGHAM had two successful cases in children, in both of which recovery followed laparotomy; in each he removed the vermiform appendix, partly to prevent a possible future appendicitis and partly to form adhesions so as to guard against a recurrence of the invagination. The advisability of this prolongation of an operation which in itself is productive of much shock to young children is very doubtful. Dr. ARTHUR S. UNDERHILL described a case which manifested all the signs of intussusception and yet spontaneous reduction appeared to occur and the child recovered. This must be an exceedingly rare occurrence. Mr. J. BASIL HALL had a patient with an intussusception of the sigmoid flexure caused by a malignant new growth; this he was able to excise per rectum with success.

Strangulated hernia may occur in very young children, but it must be very rare indeed to meet with an earlier case than that described by Mr. D'ARCY POWER, in which he had to perform a herniotomy in a child aged five weeks. Up to the present time less than 20 cases have been recorded in children under a month old.

#### *Surgery of the Pancreas.*

Acute hæmorrhagic pancreatitis is exceedingly rare. We have published two cases, one under the care of Mr. H. W. ALLINGHAM and the other under the care of Dr. G. B. HUNT. In both cases laparotomy was performed; in one because intestinal obstruction was suspected, and in the other because it was thought that perforation might have occurred. Both cases proved fatal. An important contribution was made by Dr. R. H. COOMBS and Mr. W. GIFFORD NASH in their account of a case of a pancreatic cyst occurring in a girl four years old. The cyst was incised and drained and the child recovered. Valuable tables of all the recorded cases of traumatic and non-traumatic cysts of the pancreas were also given.

#### *Drainage of the Ventricles.*

The severe symptoms and the almost certain fatal result of increase in the intra-ventricular pressure of the brain render any operation which offers a reasonable promise of relief deserving of careful consideration. A few years ago it was shown that in many of these cases the excessive pressure could be relieved by puncture with a probe of the roof of the fourth ventricle. Three striking examples of the value of this basal drainage have been recorded by Dr. E. DEANESLY, and in all three cases very great improvement followed.

We have published a case under the care of Dr. S. J. SHARKEY and Mr. W. H. BATTLE in which apparently a malignant growth disappeared. A man, 49 years of age, suffered from chronic intestinal obstruction and a mass was felt in the abdomen involving the sigmoid flexure. Colotomy was performed above the obstruction and for 12 months all the fæces passed through the artificial anus, but at the expiration of that period the fæces passed both per anum and by the colotomy wound, so six months later Mr. BATTLE closed the colotomy opening and the patient has completely recovered.

#### *Enucleation of a Central Tumour of Bone.*

Mr. A. MARMADUKE SHEILD had a case of tumour of the right forearm in a woman, 19 years old. It was found to be an enlargement of the radius. Mr. SHEILD incised the swelling and enucleated the growth which on microscopical examination proved to be a myxochondroma with recent sarcomatous degeneration. The cavity filled with granulation tissue and the wound healed. The desirability of enucleating such growths depends chiefly on the degree of malignancy, and in this case apparently the malignancy was slight.

#### *Tetanus.*

Tetanus neonatorum is fortunately a very rare disease, and therefore a case under the care of Mr. W. MCADAM ECCLES was well worthy of record, especially as in it the use of the anti-tetanic serum was followed by recovery. The practical utility of tetanus antitoxin is by no means so free from doubt as could be wished. To obtain good results from it it must be administered early in the disease, before the toxin has formed an indissoluble bond with the motor cells of the central nervous system.

#### *Rupture of the Aorta.*

Dr. O. J. KAUFFMANN had a case of a young man, aged 19 years, in whom a rupture, apparently spontaneous, of the aorta occurred and the patient survived the accident one week. At the necropsy it was found that there was a tear in the lower part of the thoracic aorta, but no disease of the arterial wall could be discovered.

#### *Foreign Body in the Oesophagus.*

A tooth-plate impacted in the oesophagus is often exceedingly difficult to remove, especially when it is situated near the cardiac orifice. Mr. FLAVELL EDMUNDS succeeded with some difficulty in removing a denture through a gastrotomy wound and the patient recovered rapidly and completely.

Of recent years carbolic acid has been much less frequently employed in antiseptic dressings than it was at the introduction of Listerism; therefore we more rarely see cases in which the absorption of the drug has given rise to severe symptoms. Dr. D. DOUGLAS-CRAWFORD had a case under his care in which coma came on as the result of the application of carbolic compresses preparatory to osteotomy. The coma was profound and it endured in spite of treatment for several hours. Dr. DAVID NEWMAN and Dr. HENRY RUTHERFORD described two very rare cases of dislocation of the patella. In one case the patella was displaced upwards by rotation on its horizontal axis, the articular surface looking upwards; in the other the patella was dislocated downwards, so that it was wedged between the femur and tibia with its articular surface directed downwards.

#### THE NAVAL AND MILITARY MEDICAL SERVICES.

In writing about the medical services of the army and navy it would be impossible not to begin by alluding to the great national bereavement of 1901—the death of Queen VICTORIA. Throughout Her late Majesty's long reign she had always taken the keenest interest in her soldiers and sailors, especially such of them as were sick or wounded, and Her Majesty's visits to Netley were frequent. The late Queen's last public act was significant of Her Majesty's sustained and

unfailing interest in the Services. On Jan. 1st, 1901, the Queen paid a visit to the Convalescent Home at East Cowes. Several men from South Africa were there, and on the evening of the same day members of the Royal Family from Osborne entertained them with music, both vocal and instrumental.

If we may judge from the results of the past year the public medical services have somehow fallen on bad times. The dearth of candidates for the Royal Army Medical Corps has of late years rendered any competitive examination on entrance a misnomer; the Royal Navy Medical Service apparently no longer holds out attractions, and the Indian Medical Service, which has all along been the most popular of the three services, shows a falling-off in the number of candidates. We have very regretfully to record this for many reasons and not on patriotic grounds only. It goes without saying that the public medical services should hold out many advantages and attractions to young medical men, and particularly for that class of them who are not seeking the prizes won by successful specialists in civil life, but the advantages of a certain income and pension, and for those who have some love of change, enterprise, and adventure with little or no taste for the ordinary pursuits and practice of their profession in civil life. We can only trust that in our Annus Medicus of next year we may have a much more settled and satisfactory state of affairs to place on record.

#### *Royal Navy Medical Service.*

As regard the Royal Navy Medical Service there is not very much to chronicle. In our journal of Nov. 9th last we had occasion to notice favourably the report of a naval committee dealing with a very difficult but most important subject affecting the well-being and comfort of the seamen of His Majesty's navy—namely, that of rations in times of peace and war. The circumstances connected with the question of titular naval rank differ very materially from those of the Army Medical Service, and naval medical officers are apparently quite content with their present titles; but there are, nevertheless, several matters which claim further consideration with a view to their being remedied. To enumerate some of these, naval surgeons have been asking that some change should be made in the matter of improved cabin accommodation, in the shortening of the period of service qualifying for promotion to the rank of staff surgeon, in the establishment of a definite sea roster, in the more general application of promotion by selection, and in increased opportunities for study leave. Whatever changes and concessions are about to be made for army surgeons will have to be extended, as far as is suitable and practicable, to the medical officers of the navy. The competition for commissions in the Royal Navy Medical Service has been steadily falling off of late.

#### *The Indian Medical Service.*

The officers of the Indian Medical Service have had very hard work and but little leave during the past year owing to the presence of plague and famine in India, and a military expedition to China—to say nothing of any troops sent to South Africa. A state of high pressure of this kind could hardly be prolonged indefinitely, however willing medical officers might be to meet the requirements of the Indian Government under such circumstances, and it became absolutely necessary to make some arrangements in the way of an increase to the establishment. We endeavoured to embody these facts and to state the provision that was needed in these respects in a leading article on the Indian Medical Service, to which we may refer our readers.<sup>1</sup>

#### *Professional Opportunities of Members of the Indian Medical Service: their Scientific Work.*

The officers of the Indian Medical Service enjoy greater

opportunities for the practice of their profession than do their *confrères* of the Royal Army Medical Corps by virtue of the hospital and civil appointments open to them. They also do much work of a medical and scientific nature, as may be seen by the periodical publication of "Scientific Memoirs," edited by the Director-General of their service, and in the excellent annual reports drawn up in the office of the Sanitary Commissioner with the Government of India—both of which we have had occasion to notice. A good deal of "talk" has taken place as usual about the amalgamation of the services, as well as about increasing the strength of the Indian Medical Service, and handing over to it the medical charge of European troops serving in that country, but nothing has been done.

#### *The Royal Army Medical Corps and the War.*

The year that has nearly passed has been fraught with important events as regards the military medical services in connexion with the war which has been, and still is being, carried on in South Africa. It will be remembered that in 1900, in consequence of the appearance of Mr. BURDETT-COUTTS's letter in the *Times* and of the allegations which had been made as to the deplorable state of the hospital arrangements, a Royal Commission was appointed to consider and to report upon the care and treatment of the sick and wounded during the South African campaign, and that the Commissioners went out to the seat of war and after a long and laborious investigation made their report on the South African Hospitals, which was published in the beginning of the year. The report, which was unanimously signed and accepted by the Commissioners, consisted of over 70 pages and its publication was accompanied by the minutes of evidence and an appendix printed in separate volumes. While the Commissioners pointed out in what respects and to what extent the complaints with regard to the sick and wounded were well founded, and forcibly drew attention to the existence of some serious evils which called for remedy, they nevertheless concluded their report by stating that in their judgment and reviewing the campaign as a whole it had not been one where it could be properly said that the medical and hospital arrangements had broken down. "There has been nothing in the nature of a scandal with regard to the care of the sick and wounded; no general or widespread neglect of patients or indifference to their suffering. And all witnesses of experience in other wars are practically unanimous in the view that, taking it all in all, in no campaign have the sick and wounded been so well looked after as they have been in this." The report was generally accepted as an eminently just and fair report. It soon became, however, the subject of great contention and of the severest criticism on the part of Mr. BURDETT-COUTTS and others. We went very fully into the matter at the time in reviewing the report and the minutes of evidence in a series of articles published in our pages, and we have no desire to re-open the question now. But there are, nevertheless, a few radical points to which we may very briefly refer.

To begin with, it is universally admitted that neither the Government nor anyone else had any idea that the war was to become what it has turned out to be or that it would ever reach the proportions which it has. The Director-General of the Army Medical Service had only to provide for the force to be sent out, which was done on a very ample scale. He had no authority to go beyond this. So long as the military operations were confined to Natal and available lines of railway all went well with the Army Medical Service, notwithstanding that large augmentations to the army were taking place—indeed, infinitely better with the medical than with any other branch of the service. But it stands to reason that it was a very different matter when the British force became an army

<sup>1</sup> THE LANCET, March 30th, 1901, p. 948.

of over 200,000 and the principal scene of the operations was translated elsewhere and such operations had to be very rapidly conducted under totally altered conditions. Again, on the occasion of the sudden and unforeseen disastrous epidemic of enteric fever, with the admittedly deplorable state of the hospitals for the time being at Bloemfontein, we confess that we have never quite understood why Lord ROBERTS did not speak more emphatically and authoritatively as to the exact situation in which his army was placed and assume all the responsibility of what was unavoidable under the circumstances. A soldier is useless without food and ammunition, and so conditioned the safety of the whole force—sick and well—would have been jeopardised. A commander-in-chief was amply justified, therefore, in sacrificing everything to procure what was for the time being absolutely essential—indeed, would have been blameable had he not done so. Instead of eulogising the efforts which the medical officers made—which Lord ROBERTS did emphatically enough—it would have been more to the point if he had assumed the responsibility of what was, as it seems to us and as we have said, unavoidable under the circumstances. In the case of an application having been made to him for his opinion as to whether the risk of a great loss of life should be incurred for the relief of Ladysmith Lord ROBERTS—to his infinite credit be it said—did not hesitate to give an opinion such as, the nation trusts, will always be given by a general under similar circumstances. At a time of extreme military urgency, when all available transport was taken up in supplying the troops (on half rations) with food, ammunition, and stores, some of the hospitals found themselves unexpectedly overwhelmed with sick and wounded, and unquestionably much suffering was the consequence. We have not simply sought to shelter the Army Medical Service from any blame in this matter, but it has never been made clear to us that that service was really more responsible for this than for the capture of the Bloemfontein waterworks, which, together with the conditions encountered at Paardeberg, probably brought about the epidemic outbreak of enteric fever. It is, as we all know, easy to be wise after the event, but a general hospital at Orange River—could its importance have been foreseen and could arrangements have been made for its establishment there—might possibly have met the strain and saved the situation. It was not, as it seems to us, so much, however, that the hospital accommodation and provision proved quite inadequate to meet the requirements of an overwhelming number of sick which had to be accounted for as the question whether any, and what, sanitary measures could have been taken to have guarded against the calamity. Was everything done to secure a better water-supply for the troops and to keep them from occupying fouled sites and camps? The whole subject—and a most difficult one it is—of practical army sanitation in the field requires to be gone into.

#### *Enteric Fever.*

Here we may parenthetically remark that, as we all know, enteric fever has proved a veritable scourge to our troops in South Africa, and that, in addition to the disastrous outbreak to which we have just been referring, the prevalence of that disease has been so widespread as to be well-nigh continuous with the presence of the British troops who have apparently suffered from it to a very much greater extent than have the Boers. As our readers are aware Dr. H. E. LEIGH CANNEY, in a notable lecture which he recently delivered at the Royal United Service Institution, has made a practical proposal for the prevention of army diseases in war—so far as these are water-borne diseases—with which we have already dealt in a leading article.<sup>2</sup>

#### *Report of Mr. Brodrick's Committee.*

But to resume the thread of our history of the Army

Medical Service. It followed upon the publication of the report of the Royal Commission on the South African Hospitals that things could not remain as they were and Mr. BRODRICK made a bold attempt at the reform and reorganisation of the Army Medical Services. A War Office Committee was appointed, consisting mainly of experts, several of whom had had recent personal experience at the seat of war, and presided over by the War Minister himself. In due time it made its report. That Mr. BRODRICK was sincerely desirous of so remodeling and improving the existing Army Medical Services and of making them, as he had said, the best in the world, we have been assured and have no doubt. But the result, so far as the report of the committee is concerned, has, we regret to say, been very disappointing. Truly, it is but a report and it has served a very useful purpose in that it has been freely criticised and its defects and shortcomings have been pointed out in time for them to be remedied and for the re-casting of a scheme at present merely outlined before it is embodied and carried into effect in a Royal Warrant. It is not that there is not a good deal which is excellent in design and good in itself in the report, for there undoubtedly is. The bare facts that the scheme seeks to shut the door on seniority as the main qualification and to open the way to promotion by selection, and that it makes an earnest attempt to raise the professional and scientific standard of the medical officers, are in themselves of great value. The profession is honestly desirous of seeing an end to long-standing and recurring controversies by the public medical services being made attractive and popular with the class of young medical men whom we all desire to see in them; but the War Office scheme as foreshadowed in the report will not, we fear, do this. A great initial mistake was made in not having appointed an experienced army medical officer of high rank on the committee. Then, again, we venture to think that if some of the proposals had been adopted which we put forward in the series of articles which appeared in THE LANCET consequent on the publication of the report of the Royal Commission on the South African Hospitals during February, March, and April<sup>3</sup> several rocks and shoals would have been avoided without any sacrifice of the aim, spirit, and intention underlying the report of Mr. BRODRICK's Committee.

#### *Changes required in the New Reorganisation Scheme.*

Be this as it may, several changes will have to be made in the new scheme of army medical reform in regard to the number of examinations required and their supposed value as tests of fitness and merit, in the clearing up of the uncertainty that exists as to the terms on which an officer may retire or be retired compulsorily at different periods of his service, to say nothing of other matters which seem to call for very careful consideration before being finally adopted. Assuming, however, that the War Minister is earnestly bent upon attaining the object which he has in view, and there being, as we have said, no finality about the report, we see no reason why Mr. BRODRICK should not reconsider the subject and, while retaining all that is good and desirable in his scheme, reconstruct it where necessary. As regards a number of important measures and matters of detail which will in any case have to be considered—such as those separately put on record by Professor A. OGSTON in his addendum to the report of Mr. BRODRICK's Committee—these can be hereafter taken up and discussed by the Advisory Board and by the newly-appointed Director-General and by the War Office Council and Army Board, of which he is a member. Surgeon-General W. TAYLOR will, at any rate, no longer have to complain, as his predecessor Surgeon-General J. JAMESON had to do, that matters relating to his department had been discussed and decided upon at War Office conferences in his absence.

<sup>2</sup> THE LANCET, Nov. 30th, 1901, p. 1507.

<sup>3</sup> See THE LANCET, April 27th, 1901, p. 1224.

*The Strain of the War.*

The strain put upon the medical department by this war has been such as it has never had to bear before. The whole of the establishment was expended during the earlier months of the war, and events developed so rapidly that the army was first doubled and then increased threefold or even fourfold. Up to June last 50,000 invalids had been received and dealt with in this country from South Africa, India, and the colonies since the beginning of the war, and at that time there were 21,000 beds equipped in South Africa, exclusive of the field hospitals. Nor must it be forgotten that the country owes a deep debt of gratitude to all who organised and equipped the large and numerous private hospitals sent out to the seat of war.

*The Complimentary Dinner to the late Director-General of the Army Medical Service.*

The work and responsibility imposed upon the Director-General and his staff must have been enormous, and it was therefore with surprise and regret that the profession learned that Surgeon-General JAMESON was relinquishing his office of Director-General and that he was allowed to leave the army without the customary recognition of his services being accorded to him by the Government. A large and representative gathering of the profession—who were at a loss to understand the circumstances and who strongly sympathised with the retired officer—took place on the occasion of a complimentary dinner being given to him.<sup>4</sup>

*War Literature.*

The thought which has in reality been uppermost in men's minds during the past year, although it may not have been apparent, has naturally been the war, and the literature about it is so voluminous that it forms a library in itself. Much of it is, of course, of an ephemeral, and some of a conflicting and contentious, nature, especially in regard to the organisation, efficiency, and working of the army medical services in the field. It is but fair to recollect that in this, as in all other things not as plain as the multiplication table, the tendency is for writers to see what it is in their minds to see, rather than to describe and to weigh the facts impartially and in their due relationship to one another. Speaking for ourselves we have no sympathy with that class of carping critics who, whilst neither incurring nor sharing in any personal responsibility themselves, are only too ready to impute blame or to find fault with the doings of others. For all that the detractors of the corps may say they are not likely to make the profession or the public believe that the officers and men of the Royal Army Medical Corps have not shown great courage and devotion and done splendid work in this South African war. When the conclusions range within the extreme limits of increasing the strength and developing a permanent military medical service so as to maintain it always fit for war on the one hand, and reach the opposite extreme, on the other hand, of well-nigh, if not quite, abolishing it altogether, it is, to say the least, a difficult and embarrassing problem for the Government to solve.

As regards the strictly professional works that have appeared we must not forget to mention that by Mr. G. H. MAKINS<sup>5</sup> and that by the professional staff of the Portland Hospital—both admirable in their way. Mr. MAKINS's valuable book and Mr. A. A. BOWLBY's contributions to the surgery of the war have really added to our knowledge of gunshot wounds and military surgery. Nor should it be forgotten that the late Sir WILLIAM MAC CORMAC, whose recent death we are all, and not least so army surgeons in this country and abroad, deploring at the present time, was among the first to contribute to our columns a series of most interesting articles on the surgery and hospitals of the war. What

rendered Sir WILLIAM MAC CORMAC's writings so valuable at the time of their publication was that he was able to compare his experience in South Africa with that which he had previously obtained in the Franco-German war and elsewhere. The contrast was striking and indeed marvellous, owing to the use of quick-firing, long-range rifled weapons and small projectiles and the employment of the antiseptic system of treating wounds. So striking was the difference that it fully accounts for Sir WILLIAM MAC CORMAC having adopted a far more optimistic tone in describing the results of the gunshot wounds he saw in South Africa. At Sedan the mortality following gunshot injuries and amputations from pyæmia and infection wound diseases alone was enormous. In these and other respects what a revolution has taken place in regard to the surgical practice of this present war.

**CHEMISTRY.***Radio-Activity.*

That curious and remarkable property possessed by certain substances and known as "radio-activity" has been further studied during the past year with results, it may be, of the highest possible significance. In recording the work of research in this particular field last year we took occasion to say that "it is evident that chemists are on the threshold of an entirely new field of research which promises to yield very remarkable results." It would indeed be a remarkable result if the discovery of this property of radio-activity proved to lead to a readjustment of the atomic weights. It is pretty certain, at any rate, that this property does betray the presence of an impurity in a substance which was previously regarded as pure, or the presence of another element in the substance previously regarded as elementary. If so we may reasonably entertain some doubt as to the accuracy of atomic weight determinations owing to the presence of minute quantities of unknown elements in what was regarded as the virginal substance. As is well known the atomic weights of the 70 odd elements differ only by a small amount from whole numbers. Possibly this small difference may ultimately be eliminated by the discovery that pure elementary material has not been the starting point. Thus radio-activity may establish that after all PROUT was right in his remarkable hypothesis that the atomic weights of the elements are multiples by whole numbers of the atomic weight of hydrogen and the question may therefore be nearer settlement as to whether the elements have had a common origin or whether they may not represent several stages in an evolutionary process operating upon a primitive simple material, and whether in that case it may not be possible to transform one into another by the operation of agencies within the range of practicable experiments. The study of radio-activity is thus reviving the possibility of the transmutation of the elements, and once again alchemy and modern chemistry "kiss each other." There can be little doubt, at any rate, of the existence of a large number of undiscovered elements, and it is probable that many of them will be found to be similar to elements and to such an extent that they may now exist unsuspected with the known elements and may affect their atomic weights to the fractional extent that has seemed to disprove PROUT's whole-number hypothesis. Radio-activity is not only a property of solids but of liquids and gases also. Thus water can be rendered radio-active by distilling it from a solution of radium chloride in an absolutely air-tight vessel. That the property is remarkably communicable is shown by the fact that when a vessel of distilled water is connected with a vessel containing radium chloride the water soon becomes radio-active, the radio-activity having been communicated by the gas in the closed vessel. Radium rays cause skin wounds as do Roentgen rays and have similar physiological effects. The development of this fascinating field of research will be eagerly watched.

<sup>4</sup> THE LANCET, July 27th, 1901, p. 247.

<sup>5</sup> Surgical Experiences in South Africa, 1899-1900. Smith, Elder and Co.

**Radiant phenomena** have also been studied in connexion with the phosphorescence of many substances. The cause of the so-called "phosphorescence" to be seen at times on such objects as dead fish is found to be due to a luminous bacterium belonging to a group of organisms whose natural habitat is sea water. Their luminous properties are dependent on a supply of free oxygen and a suitable percentage of a soluble chloride in a nutritive medium. Artificial cultivations may readily be made and the experiment is attended with very beautiful results in which the effect of oxygen on the phosphorescence of the culture can be easily observed.

#### *New Gases in the Atmosphere.*

Professor DEWAR has been very busy on the separation of the least volatile gases of the air and the results are wonderful in bringing to light the fact of the presence of many more gaseous elements in the air than our philosophy ever dreamt of. Thus there are hydrogen, helium, neon, krypton, xenon, and doubtless others, their separation being effected by the excessively low temperatures employed by Professor DEWAR in his liquid air apparatus. By and by, perhaps, we shall reach the zero of temperature, but there are enormous difficulties in the way. Even liquid helium with a probable boiling point of five degrees would not assist the inquiry very much. A gas must be found much more volatile than helium is in relation to hydrogen, in order to reach within one degree of the zero of temperature. But to start with the production of liquid helium is a problem difficult and expensive enough to occupy the scientific world for many a day. Apart from the indications of new elements the actual discovery of a new one during the year has not been announced, with perhaps one exception. This is in regard to europium which appears to be related to the rare elements isolated by CROOKES, their characteristic being a brilliant phosphorescent spectrum.

#### *Lipase.*

Some very remarkable results have been obtained in connexion with an investigation of lipase, the fat-splitting enzyme. As is well known "lipase" is the name now given to that enzyme which is associated with trypsin. It is agreed to call it "lipase" and neither "pialyn" nor "steapsin" as formerly. Lipase acts by hydrolysing fats—that is, separating them into fatty acid and glycerine. It has now been shown that its action is reversible—the reaction ceasing when the products of the hydrolysis reach a definite concentration in consequence of equilibrium being established. Thus it may effect either analysis or synthesis, as has been shown by its action upon ethyl butyrate, which is a chemical analogue of fat. Lipase would appear to be present in the liver, stomach, and small intestines. It is a stable enzyme but easily acted upon by heat and by antiseptics.

#### *The Nature of Ammonium.*

Every chemical student remembers the remarkable result which is obtained when sodium amalgam is treated with strong ammonium chloride solution. An interaction takes place and a huge buttery mass with a metallic appearance is evolved which by some has been regarded as a true amalgam of ammonium, thus establishing the metallic character of the  $\text{NH}_4$  group. On the other hand, experimental evidence has been adduced which is apparently not in favour of this view. In a recent series of experiments, however, very unmistakable evidence of the metallic nature of ammonium was obtained. The ammonium amalgam was prepared by an electrolytic method and when it was brought into a solution of a copper salt copper amalgam readily formed which in its turn yielded copper on the battery plate.

#### *A Test for Human Blood.*

The action of peroxide of hydrogen on the blood has been studied with the result that a comparatively easy means of

distinguishing human blood from that of animals has been brought to light. Human blood has a much stronger decomposing action on peroxide of hydrogen than that of animals, the volume of oxygen gas given off being more than four times the amount than in the case of bullock's blood and ten times greater than with sheep's blood.

#### *Analyses, Chemical and Spectrographic.*

Some interesting results of analysis have been published during the year of gold foil from the Royal Tombs of the First Dynasty. The gold used by the ancient Egyptians was undoubtedly the native alloy and it is generally found to contain silver. Some of the foil is much tarnished which is due to the formation of chloride of silver, an explanation which affords an interesting instance of the slow diffusion of one part of the alloy (the silver) till it reaches the outside surface where it meets with the chlorides that exist in the sands of the desert.

Spectrographic analysis has brought to light an extraordinary number of mineral constituents in dust and soot from various sources. In the dust appearing in hail, snow, or sleet iron, nickel, calcium, copper, potassium, and sodium have been found. In volcanic dust the chief constituents were lime, magnesia, and the alkalis; in soot from different chimneys nickel, calcium, manganese, copper, and silver were detected; in flue-dust lead, silver, copper, and manganese were found besides the comparatively rare metals rubidium, galenium, indium, and thallium. It will thus be realised that the spectroscope is not confined in its usefulness to the examination of solar or stellar phenomena. It has recently, however, revealed a wealth of results in regard to the chemistry of the sun. The last list of elements occurring in the sun which Sir NORMAN LOCKYER has furnished to the Royal Society was based on the observations made on the total eclipse of the sun on Jan. 22nd, 1898, at Viziadrag. This investigation showed the probable presence of calcium, chromium, iron, manganese, nickel, strontium, titanium, cobalt, copper, indium, lead, molybdenum, potassium, rubidium, aluminium, barium, carbon, magnesium, sodium, scandium, cerium, lanthanum, lithium, rhodium, tantalum, vanadium, bismuth, caesium, gold, ruthenium, selenium, silicon, thallium, tin, tungsten, yttrium, zinc, zirconium, and hydrogen, helium, and asterium. There are missing from this list antimony, arsenic, cadmium, iridium, mercury, osmium, palladium, platinum, silver, and thorium, of the presence of which no evidence was gained. Truly the chemist has a wide and a far-off field within his ken for investigation and study.

#### **PUBLIC HEALTH.**

It may be said of the year now past that it has, in a public health sense, been fuller in potentialities than in actualities. Nevertheless, some good work stands to its credit.

#### *The Numbering of the People.*

From the public health standpoint the census of 1901 was an all-important event. Without such periodical reckonings of our gains and losses vital statistics would possess relatively little value, and even with a decennial enumeration the inaccuracies which are apt to creep in towards the end of the decade render it necessary that the rates based upon the estimates shall be received with the greatest caution. The census figures are, perhaps, more encouraging than was expected, but, nevertheless, the indications are not altogether reassuring as regards the maintenance of the population by means of the excess of births over deaths; the balance of immigration over emigration is another matter. Although the rate of increase for the decade amounted to 12.17 per cent., as against an increase of 11.65 per cent. in the previous decade, and although the increase is numerically in excess of that recorded previously, we are face to face with the fact that the percentage-rate of increase was less than that

for any decade during the last century, save those ending in 1861 and in 1891. The natural increase per cent. was 12·39, as compared with 13·97 in the previous decade. Although the mean annual death-rate has steadily declined since 1861-71, the important fact remains that the birth-rate has declined still more rapidly since 1871-81. The percentage of increase or decrease in the several large towns varied enormously. In East Ham the increase was no less than 193·44 per cent., while in Huddersfield there was a decrease of 0·43 per cent. But in considering the figures as regards the large towns questions as to borough extension or the exodus of the population to the suburbs have to be borne in mind.

#### *Tuberculosis.*

The year 1901 will loom large in the annals of tuberculosis with respect to the question of its control in so far as Great Britain, and, indeed, the empire as a whole, is concerned. The congress which assembled in London in the summer has had as one of its results a quickening effect upon the appreciation of the profession and of the public of the importance of preventive measures—of more light, more air, greater cleanliness, and less promiscuous expectoration. The keener recognition of the value of all these agencies may reasonably be held to have an effect, not only upon the prevalence of tuberculosis, but also in diminishing the opportunities of spread of other communicable diseases. In the direction of the promotion of sanatoriums for the open-air treatment of phthisis several schemes have been recently set on foot, and in this sense the potentialities of the congress of 1901 are full of promise, in that the meetings tended to bring home to the public the great superiority of the Germans in the matter of sanatoriums for the working-classes. The State insurance laws in Germany render it essential that all workmen receiving not more than £100 per annum shall be insured against sickness and old age, and it is from the funds of these insurances that sanatoriums are largely supported.

#### *The Relation of Bovine to Human Tuberculosis.*

The remarkable address of Professor KOCH at the Tuberculosis Congress in which he practically denied the communicability of bovine tuberculosis to man, albeit he furnished in support of his thesis only a series of experiments pointing to the difficulty of communicating human tuberculosis to bovines, has led to the appointment of a Royal Commission to control both the experiments and the inferences therefrom. We are afraid that it may be difficult exactly to copy in the laboratory or even on the farm that which takes place in everyday life, as the feeding of children with tuberculous milk or meat is hardly within the realms of practicability. It has to be borne in mind that the problem is really not only as to whether bovine tuberculosis can be conveyed to the human species, but if so, with what degree of facility and through what channels it may be thus conveyed. There are, however, indications from work since done in Holland and elsewhere that Professor KOCH's conclusions were premature, and it behoves all sanitary authorities not to relax their efforts for the control of tuberculous milk and meat.

#### *Food Preservatives.*

The committee appointed to consider the important subject of the preservation by chemicals of foods and drinks issued their report toward the close of the year, and we have recently dealt fully with it in our columns, where we expressed our cordial concurrence with the general tenor of the recommendations. It is to be hoped that the Government will at an early date bring in a Bill dealing with the recommendations of the committee. The members of that committee have clearly seen the need for a more thorough control of our food supply, and they have accentuated the importance of setting up some machinery by means of which the repeated formation of Royal Commissions or Departmental Committees

may in the future be rendered unnecessary. They advise the formation of a Board of Reference to which questions affecting the safety or otherwise of new or existing preservatives or colouring matters might be referred. Indeed, it is obvious that some such court of reference as this would find ample matter wherewith to occupy its time. Whatever form this body may ultimately take, there can be no doubt that at present the control of the manufacture and preparation of foodstuffs and drinks is sadly in need of improvement. All places where these substances are prepared should be subjected to periodical inspection, and in this manner chemists and the bacteriologists might receive very considerable assistance in their work. The President of the Local Government Board is a strong and independent administrator, and an opportunity is now afforded to him of materially improving the control of our foods and drinks. The methods adopted by the French Consulting Committee of Hygiene or by the Gesundheitsamte of Germany might be usefully studied.

#### *Plague in 1901.*

During 1901 plague has fully maintained its hold upon the four quarters of the globe. The largest incidence has, as before, been among the teeming millions of India where the disease has spread to new localities and bids fair to repeat in Bengal the ravages it has caused in the Bombay Presidency in past years. In China, too, plague has not relaxed its virulence, Hong-Kong having again passed through a severe epidemic. Other places, such as Canton and Amoy, have also suffered. Japan, with its large shipping connexion, has, like other maritime nations, suffered from imported infection. In Formosa, again, the victims have numbered thousands. In the Philippine Group Manila has been the chief sufferer, while in less amount the Straits Settlements, Queensland, New Caledonia, and the Sandwich Islands have again been visited by the disease. At San Francisco, notwithstanding emphatic denials to the contrary, plague has smouldered on in the Chinese quarter. In Argentina and in Brazil there have been fresh outbreaks. South Africa has had a sharp outburst, confined largely to the Cape Peninsula, but ultimately reaching Port Elizabeth. The disease once again broke out in Mauritius in epidemic form and on a smaller scale in Réunion. Towards the end of the year the district behind Delagoa Bay was reported to be once more infected. In Egypt the annual recrudescence of plague was not confined to Alexandria and Port Said, but appeared in a number of distant inland localities where, fortunately, it was soon checked. In Arabia, more especially in Assyr, plague again showed itself. In various seaport towns in the Levant scattered cases were reported, but larger groups appeared in the Smyrna port and district, as well as in Constantinople, and later in certain Turkish ports in the Black Sea. The Russian ports of Batoum and Odessa yielded cases, as also did Naples, but in each instance the outbreaks are reported to have been promptly suppressed. At Marseilles there have been a comparatively large number of ship-borne cases, a group of 22 occurring in connexion with a single vessel and six in another, while smaller groups of cases were reported, especially during the latter part of the year, on board vessels arriving from the East. So far as is known no inland cases have occurred in France.

England has not escaped from ship-borne infection. At Hull a group of nine cases, eight of them fatal, occurred early in the year in connexion with the s.s. *Priary* from Alexandria. Fortunately the disease was promptly dealt with and there was no extension. In another vessel which arrived at Bristol from Smyrna, an infected port, rats were found to be suffering from plague, but no case in man was discovered. In another ship which arrived at Southampton from South Africa a single case of plague in an Asiatic member of the crew was discovered. It is worthy of notice that up to the

beginning of December no fewer than 23 other vessels had been reported on arrival to have on board cases suspicious of plague. But in none of them was the diagnosis confirmed by bacteriological investigation. During 1901 there were two instances in which inland plague was recognised and the origin of which was in doubt. At Cardiff at the end of January a fatal case of plague, bacterioscopically confirmed, was reported, and later a second case in which, however, the bacteriologist was unable to confirm the diagnosis. At the same time it was found that rats at a mill where the first victim had worked were also suffering from the disease. Fortunately there was no extension of the disease and so far as is known Cardiff remained free from plague during the rest of the year. During October a group of cases occurred at Liverpool in which there was bacteriological evidence to prove the existence in one or more of them of true plague. It is now believed that nine persons had suffered from the disease, of whom five died. The cases were at first thought to be due to a severe form of influenza. There was no evidence of infection by means of rats and the outbreak quickly came to a termination under the active measures carried out by the health authorities. In the autumn two groups of cases occurred at Glasgow: the first comprised five persons, three of whom died; the second group, also including five sufferers, one of whom succumbed, appeared a month later, apparently having no connexion with the first. Of this last group only one case was fatal, but it was found that rats in the basement of the building, where all of the five persons were employed, were also suffering from plague. Here, again, the outbreak was soon suppressed and no fresh cases were reported up to the middle of December. Although, therefore, the past year has brought us no epidemic of plague, it cannot be said that the experience of the 12 months is precisely reassuring. The abundant and increasing evidence connecting human plague with a similar disease in certain rodents and the very material difficulty in controlling the movements of such rodents make us somewhat sceptical as to whether our present measures are all-sufficient. The Port of London has recently set an excellent example by adopting regulations with respect to the berthing of ships, which are already practised, we believe, in certain of our colonies, and other ports will, it is to be hoped, follow. The outbreaks of plague at Liverpool and at Glasgow, which, strangely enough, were of almost simultaneous occurrence, have served to show us that, in spite of all our seaboard precautions, plague may reach us in a manner which cannot be traced, and that with a relatively unprotected Scotch and Irish seaboard we may be in need of a more uniform administration of all the ports of Great Britain.

#### *Small-pox and Vaccination.*

In London, at least, small-pox and, as a consequence, vaccinia have been prevalent during 1901, and although the number of cases of small-pox cannot be said to constitute an epidemic, the disease is persisting with a pertinacity which must cause some anxiety to those at all familiar with the natural history of variola, more particularly so when it is remembered that the greatest seasonal prevalence of the disease is in the first half of the year. The outbreak has served to bring out certain salient points. In the first place, we are able to see what a large proportion of small-pox may be traced to importation from abroad, and in the second place it has brought home to us the fact that the *unrecognised case* is an enormous factor in maintaining the prevalence of the disease. Unfortunately there are no means at our disposal of recognising a person who is incubating small-pox, or for the matter of that any other infectious disease, but the general notification of varicella would tend materially to control the unrecognised channels through which small-pox now spreads, and there would seem to be no very strong

objection to adding this disease to the notifiable diseases. Although of itself varicella is hardly a dangerous disease, it is so by virtue of the frequency with which mild cases of variola are liable to be ranked as varicella. With regard to vaccination it may be said that the present law has worked smoothly during the year and the general testimony of the country as a whole is favourable to its provisions. Unless, however, revaccination can be put upon the same basis as primary vaccination small-pox will never be reduced to its smallest practicable limits and the medical profession should lose no opportunity of enforcing this truth upon our legislators and upon the public. The more modern methods of performing vaccination are, we are in a position to state, being gratefully appreciated by the people who in these days are becoming alive to the necessity for asepticism in anything approaching a surgical operation. So, too, the greater care which is now taken in the preparation of calf lymph is a matter for congratulation. The outstanding dangers to be anticipated and to be guarded against are inert lymph and one-mark vaccination; both of these will tend to bring vaccination into disrepute when the variolous test is applied. The former danger is one for our bacteriologists and for our dispensers of lymph, the latter for the conscience of the medical profession.

#### *Isolation Hospitals.*

Although steady progress has been made during the year in the provision of isolation hospitals, both for the ordinary infectious diseases and for small-pox, it is not unlikely that the Isolation Hospitals Act of 1901 may prove instrumental in bringing about a somewhat wholesale provision of these indispensable institutions. In the detailed management of many isolation hospitals there is doubtless room for improvement, but as to their general utility there can, we think, be no question, and the opportunity afforded to county councils is one which the more progressive counties will not be slow to take advantage of. All isolation hospitals can now, with the consent of the Local Government Board, be transferred to the county councils, and by the provisions of the same Act these bodies may make substantial contributions to the erection and maintenance of such hospitals.

#### *The Disposal of Sewage.*

The Royal Commission appointed to inquire into the treatment and disposal of sewage is still sitting, and as far as we are able to gather there is no immediate prospect of the completion of its labours. It was probably this feeling that induced the Commission to issue an interim report, the effect of which is, we take it, likely to induce the Local Government Board to modify their demands for the provision of land in every case. It would seem, too, as if the chances of entirely getting rid of pathogenic organisms by any of the methods of treatment at present in vogue are remote and it may be that the Commission will find it necessary to recommend that in some cases, where, for instance, effluents are to pass into the water-courses used for drinking purposes, or into estuaries near to oyster-fattening beds, some form of sterilisation should be adopted. But even then it will be found difficult to sterilise the surface washings of the adjoining catchment area, and the bacteriologist may still look askance at the waters of the river. Doubtless, however, the requirements will have to be modified to meet the particular needs of individual cases, and it is hardly likely, save perhaps in cases where shell-fish industries are concerned, that an effluent of a very high degree of bacterial purity will be asked for where discharge directly into the sea is in question.

#### *The Prevention of Enteric Fever among Armies in the Field.*

The lessening of the ravages of enteric fever during war is a public health question of no small importance; indeed, war generally is very much an enemy to the public health in that it tends to kill off in one or another fashion the

physically fit and leaves the relatively weakly at home to continue the race. It is, therefore, a matter of the greatest moment that a reasonable trial should be given to those suggestions for the sterilisation of drinking-water which have recently been made by Dr. H. E. LEIGH CANNEY and others, whether by boiling or by chemical means. Doubtless there are under camp conditions channels for the spread of enteric fever otherwise than by water, but if a supply of sterilised water can be provided for troops in the field one great agency of spread will have been controlled. The cost of testing the several proposals which have been made would in times of peace be practically *nil*. The Commissioners who were appointed to inquire into enteric fever and dysentery and who left England in the summer of 1900 may, we hope, render valuable assistance in their report which, we understand, has already been presented to the Secretary of State for War.

#### *The Royal Commission on Arsenical Poisoning.*

The first report of this Commission which was published in the summer did not add much to the knowledge which was already before the world as to the cause of the remarkable outbreak of arsenical poisoning, but it placed as it were a sort of authoritative stamp upon the reports which had already been issued upon the subject. This Commission is now ascertaining by means of all the channels at its disposal in what manner the risks such as are here in question can be prevented in the future, not only in respect of beer, but of foods and drinks generally. It will be interesting to find what recommendations in respect of the improvement of our present machinery for the better control of foods are made in the final report, and if the provisional recommendation embodied in the first report by the majority of the commissioners is adhered to an instructive report may certainly be anticipated.

#### *The Abolition of Smoke.*

The Londoner is long-suffering in the matter of fog and smoke, but he nevertheless welcomes any efforts or movements which are likely to render the London fog less opaque. The year 1901 has at least not been barren in this respect, and if the efforts which are now being made are supported by the metropolitan boroughs and by the London County Council the nearly absolute darkness of the recent fogs may become in time a matter of history only.

#### *The Housing of the Working-classes and the Poor.*

In the matter of information as to the housing of the working-classes the year 1901 has been somewhat prolific. The London County Council has issued "The Housing Question in London"—a volume which contains a most useful account of what has been done in the metropolis in the past in connexion with this extremely complicated problem, and we have already noticed the work at considerable length in our columns.<sup>1</sup> In addition to this the last Milroy lectures<sup>2</sup> went into the subject of "Public Health and Housing" very fully, and there have been several instructive discussions on this subject. Quite recently a deputation of the Association of Municipal Corporations waited upon the President of the Local Government Board with the view of urging certain points—notably, perhaps, an extended period for the repayment of borrowed money—upon him. Mr. LONG lent a sympathetic ear, but it would not appear that there is any chance of legislation on the subject albeit the problem may possibly be handed over for the consideration of another Royal Commission. But it cannot, however, be said that 1901 has been barren in connexion with the housing question. The sympathy of the KING is with those whose faces are turned towards the light and the County Council will not be likely to let the matter rest seeing what they have

already accomplished. Moreover, will not the new borough councils feel that in facing this question they will be doing something to justify their new chains of office? In the meantime the problem will be materially modified by the development of the electric tramway system which will in point of distance take the workers further from their work and in point of time bring them nearer.

#### *The Control of Factories and Workshops.*

The consolidation and amendment of the Factory and Workshops Acts by the Act of 1901 and the energetic application of its provisions should conduce very materially to the health, comfort, and safety of the artisan population of this country. Although the sections bearing directly upon health form but a small portion of the Act the provisions relating to the prevention of accidents, the limitation of the hours of labour, the exclusion from work of recently delivered women, and the control of dangerous and unhealthy industries are all matters which bear upon the health of present and future generations of workers. The sanitary control of workshops has hardly been dealt with in the annual reports of medical officers of health as thoroughly as could have been wished in the past, and it is to be hoped that the new Act will act as a stimulus in this respect. The State in its turn should see that the Government factories and workshops afford an example to other employers of labour.

#### *The Metropolitan Borough Councils.*

It is as yet too early to extol or to criticise the new metropolitan borough councils, but it is certain that they are being closely watched by all those anxious for sanitary reform in the metropolis. The near future will determine whether these new administrative bodies are merely the old vestries under another name or whether they consist of men anxious to bring about a different condition of affairs in the matter of the housing of the poor, of better lighting, and the more liberal provision of sanitary conveniences, &c. Fortunately these councils have at their disposal medical officers of health who are capable of advising them and who are, moreover, free to speak their minds as to the sanitary requirements of their districts without fear of dismissal.

#### *The Public Health Legislation of 1901.*

In this particular but little has reached the statute book; indeed, but little has been attempted. The Isolation Hospitals Act and the Factory and Workshops Act are the only two measures which can lay claim to be regarded as of public health interest, and even these, seeing that they are both amending Acts, can hardly rank as of first-class importance. During the year Mr. LONG seems to have been framing a Bill to deal with the difficult question of forming a board for water-London, and there are, we take it, prospects of a consolidation of the Public Health Acts. In our next Annus Medicus we shall, we hope, be able to record more progress.

#### THE GENERAL MEDICAL COUNCIL.

The General Medical Council held its two usual sessions in the course of the year, each lasting seven days. The summer meeting, beginning on June 4th, was the seventy-first session of the Council. Two personal changes were noticeable at this meeting. Dr. NORMAN MOORE succeeded Sir DYCE DUCKWORTH as representative of the Royal College of Physicians of London and Sir JOHN WILLIAMS succeeded Mr. T. PRIDGIN TEALE who retired with the universal respect of the Council after 25 years' service as Crown Representative. Though the Council sat seven days in each of the two sessions the business transacted was not large and was similar, not to say identical, in both.

#### *The Disciplinary Work of the Council.*

Of late the Council has commenced its penal or disciplinary business on the Wednesday and has disposed of it with dispatch, while no one can accuse it of any want of

<sup>1</sup> THE LANCET, Jan. 12th (p. 124) and 19th (p. 205) and Feb. 2nd (p. 351), 1901.

<sup>2</sup> THE LANCET, March 2nd (p. 679), 9th (p. 679), and 23rd (p. 837), 1901.

consideration to accused persons. It is a happy circumstance that though numerous practitioners have been summoned to attend on charges of unprofessional conduct in only one case has the Council proceeded to order the removal of a name from the Register—that of a practitioner found guilty of committing adultery with a lady whom he had professionally attended. Three other cases were of sufficient novelty and importance to be mentioned here. Dr. HENRY WARD IRVINE, it will be remembered, had accepted the office of consulting physician to the Consultative Medical and Surgical Institution, Birmingham, at a salary, and was charged with having approved or acquiesced in the extensive advertisements issued by that institution referring to his special ability as a general consulting practitioner. The Council in December, 1900, found the charges proved. Dr. IRVINE then, in the course of the inquiry, showed that he had scarcely realised the objectionable and unseemly system to which he had unfortunately left his name and qualifications. He was given time to consider his position and soon resigned his office. Accordingly the General Medical Council at the June meeting did not proceed further with the case and it ended in Dr. IRVINE thanking the Council for its decision and for the care with which it had gone into his case. Dr. J. MARTIN THOMSON of Airdrie, Scotland, had been found by the Council in December, 1900, to have employed habitually unqualified assistants to sell poisons, so violating the Pharmacy Acts. Time was given him to consider his position. He immediately submitted himself to the judgment of the Council and engaged a qualified assistant. On his reappearance at the June session and on his satisfying the Council of his loyalty to its decision the Council resolved to desist from further proceedings. At the recent session no less than seven practitioners from the West of Scotland were charged with a similar offence—viz., keeping unqualified assistants and allowing them to sell scheduled poisons. It was urged in mitigation of their offence that they acted so before knowing the judgment of the Council in Dr. THOMSON's case. On their undertaking to discontinue the employment of unqualified assistants the Council, through its President, announced its intention not to proceed further with the matter. But it very properly resolved at a later stage of the recent session to issue a warning against such a system as occasion may arise to all practitioners. Three dentists were charged before the Council at the June meeting with advertising in various ways. They promised to desist from the practice and the Council dismissed the cases. Our notice of the penal cases would be incomplete without an allusion to the important case of Dr. ROBERT RENDALL, who was charged with "accepting, and continuing to hold, the appointment of medical officer to the Liverpool Victoria Legal Friendly Society at Great Yarmouth, a society which systematically practises canvassing for the purpose of procuring patients, and with approving and acquiescing in such canvassing." It should be stated that Dr. RENDALL was also medical officer to the National Medical Aid Company which was worked in association with the Liverpool Victoria Legal Friendly Society. The case is, in a sense, still *sub judice*, but the Council found the allegations proved and adjourned the final consideration of the case to the next ordinary meeting of the Council. The case excited much interest, partly on account of the eminent counsel employed and partly because it tests the power of the Council to deal earnestly and effectively with a system that is injurious to the profession and to the poor alike. The judgment of the Council in no way turned on the fees charged to members entering the National Medical Aid Company, but had reference solely to the touting and advertising system by which the patients were secured.

#### *Recognition of Foreign and Colonial Diplomas.*

There is little in the way of actual work done to put to

the credit of the Council in either session. The proposal to extend the second part of the Act of 1886 to the Kingdom of Italy and the University of Malta was discussed in the Council at both its sessions. Acting under the advice and on the report of its Education Committee in the recent session it reported in favour of the extension in both cases—or rather it resolved to report that in both cases the requirements of the universities for their respective degrees were such as to provide a sufficient guarantee of the requisite knowledge and skill for the efficient practice of medicine, surgery, and midwifery. It will be well for the Council to take an opportunity of representing to the Government the want of power and of means on the Council's part to inspect foreign and colonial examinations as it does the home examinations. But it wisely did not allow this consideration to interfere with its duty to make such report as it could with regard to the curricula in Italy and Malta respectively.

#### *The Raising of Preliminary Education.*

The members of the Education Committee were able to complete their report on the steps taken by them to give effect to the recommendations and suggestions for the improvement of preliminary examinations. They have virtually come to a satisfactory understanding with the College of Preceptors, the Royal College of Physicians of Ireland, the Royal College of Surgeons in Ireland, and the Educational Institute of Scotland. These bodies have further agreed to forward their marked papers to the committee from time to time. The Council expressed great satisfaction with the work done by its committee and allowed a further grant for the purpose of inspecting certain of the recognised preliminary examinations in general education during the year 1902.

#### *Slow and Expensive Working of the Council and the Dispute with the English Royal Colleges.*

Other business of the Council had to stand over. For two or three sessions it has been trying to formulate rules to prevent personation for purposes of false registration. The subject again occupied part of two days of the recent session and was then sent back to the Personation Committee. At the June meeting a special committee was appointed to report in November on amendments of the Medical Acts for adjusting the relations between the General Medical Council and the Branch Councils and for placing the financial position of the Council on a satisfactory basis. But no such report was made or attempted, in spite of the fact that the English Branch Council only avoided the sale of consols at a great loss for payment of its excessive expenditure by borrowing £600 from the Dental Fund. Such constant adjournment of important business to the next session threatens to bring both embarrassment and discredit to the Council. The chief explanation is the state of discord to which the Council has been brought by the dispute between itself and the Royal College of Physicians of London and the Royal College of Surgeons of England on the subject of science teaching and the institutions where it shall be taken. Three separate discussions on this subject ended in the appointment of a committee to frame a report which is to be discussed at a special meeting of the Council in February. Of this committee Dr. D. C. McVAIL is the chairman. The special meeting will involve a further expense of £500 or £600. Perhaps the best resolution passed by the Council at its late meeting was that re-appointing Sir WILLIAM TURNER as President for another term of five years. Sir WILLIAM TURNER is a model chairman, whether we regard his business faculty, his knowledge of medical education, or his deep personal interest in those great medico-political questions which so much affect the reputation and efficiency of the profession.

*The Election of Direct Representatives.*

Since the close of the November session the election of Direct Representatives has taken place. A very large proportion of the registered practitioners abstained from voting. The result is the election of Mr. GEORGE JACKSON of Plymouth and the re-election of Mr. GEORGE BROWN of London for England, and the re-election of Dr. W. BRUCE for Scotland. Dr. J. G. GLOVER, being advised by his medical friends to take no active part in the election, thought it right to retire from the contest—a course which has been much regretted both inside and outside the General Medical Council of which he was a member for 15 years.

## THE BRITISH MEDICAL ASSOCIATION.

The sixty-ninth annual meeting of the British Medical Association was opened at Cheltenham on July 30th. The President was Dr. GEORGE BAGOT FERGUSON, senior surgeon to the Cheltenham Hospital. The occasion was the second on which the Association had visited Cheltenham, the last visit having been paid in the year of the accession of Queen VICTORIA. Dr. FERGUSON took as the subject of his Presidential Address, "Scientific Research: the Indispensable Basis of all Medical and Material Progress." Dr. FERGUSON may be congratulated upon his skill in making a *résumé* of medical progress, not, to use a term adopted from the kitchen, a mere *réchauffé*, but an interesting and scholarly descriptive account. The Address in Medicine, entitled "Friends in Council," was delivered by Dr. JAMES F. GOODHART and we need do no more than say that in it he was at his very best. The Address in Surgery was delivered by Sir WILLIAM THOMSON who took for his subject a theme which at the present time comes home to all of us—namely, "Some Surgical Lessons from the Campaign in South Africa." No address was delivered in obstetrics. With regard to the general meetings, by far the most important business transacted thereat was the consideration of the report of the Constitution Committee, which was received with one or two amendments. In the proceedings of sections many interesting papers were read. Among the foreign guests present were Dr. SABOURAUD of Paris, Dr. G. DOCK of Michigan, and Professor ONODI of Budapest. There were also present at the meeting various delegates from the colonial branches of the Association.

## VARIOUS HOSPITAL FUNDS.

*The Metropolitan Hospital Sunday Fund.*

The history of the Metropolitan Hospital Sunday Fund year by year might be summed up in one word—"success," for in spite of gloomy forebodings before the annual collections the promoters of the Fund have generally had cause to congratulate themselves on the result of their labours. The amount collected during the year 1901 was £54,731 19s. 3d., £2738 4s. 9d. in excess of the amount collected in 1900, and, with the exception of the year 1895, when the Fund exceeded £60,000—this amount is the highest yet recorded. The total sums collected by congregations of various denominations amounted to £36,388 6s. 4d. Prebendary RIDGEWAY of Christ Church, Lancaster-gate, collected £1317; Canon FLEMING of St. Michael's, Chester-square, £1233; and Prebendary STORRS of St. Peter's, Eaton-square, £652. There was an increase of £532 in the collections from contributing congregations which numbered 16 more than last year. Mr. GEORGE HERRING for the third time gave a donation of £10,000; Sir FREDERICK L. COOK, Bart., M.P., gave a special donation of £4000; Sir SAVILE CROSSLEY, Bart., again generously contributed £500 (for the tenth time); "A. G. P." gave £200; and "Delta" contributed his twenty-third donation of £200. The number of hospitals that participated in the division of the funds was 144, and the number of dispensaries 53.

*The Hospital Saturday Fund.*

The Hospital Saturday Fund has made steady progress during the year, the income being £20,300, as compared with £20,014 in 1900. It is interesting to note the progress that the Fund has made since the abolition of the street collection in 1897. In that year £20,138 were collected, including £3330 from street boxes. It will be seen that the Fund has more than recovered the loss incurred by the abolition of the street collection and has distinctly increased in public favour. The main income of the Fund is derived from the penny-a-week collections in the workshops and places of business in London. This is steadily maintained notwithstanding the many other claims which are made upon the small resources of the workers. A special department has been created for the supply of surgical instruments upon payment by the patients of 50 per cent. of the estimated cost. Over 3000 instruments are annually provided by this department under the supervision of a special committee assisted by competent surgeons and fitters. Towards the cost of these appliances the patients contribute over £1400. Special arrangements are also made for sending men, women, and children to convalescent homes when recommended for such benefit by a medical man. Over 1200 patients were sent away during 1901, many on the part-pay system, nearly £400 being paid by the patients or their friends towards the cost of their maintenance. Another special department of the Fund is the ambulance department, through which men and women are trained to render first aid in cases of accidents in the workshops or in the streets, mostly in the workshops; and in cases where the employés of any firm subscribe £5 per annum to the Fund and employ a man or woman holding a First Aid Certificate of the St. John Ambulance Association they are supplied on loan with completely fitted ambulance boxes. The awards for 1901 amounted to £18,700, as against £17,690 in 1900.

*Prince of Wales's Hospital Fund.*

This is the last year in which the Fund will bear the above title, for His Majesty has decided that on Jan. 1st next the Fund shall be known by the name of "King Edward's Hospital Fund for London." Since its inception in the Diamond Jubilee year of her late Majesty Queen VICTORIA the Fund has made steady progress. Excluding the first collection in 1897 the annual totals have been as follows: In 1898, £39,272; in 1899, £48,536; and in 1900, £51,549, the last-named sum including £6000 collected by the League of Mercy. Of the sum collected in 1900 £50,000 were awarded to hospitals and convalescent homes. The expenditure for 1900 was £1960. The complete figures for the year 1901 are not yet to hand, but the receipts up to Dec. 16th amounted to about £53,000. This sum does not include various coronation gifts. £50,000 will be distributed among hospitals and £1000 among convalescent homes. The League of Mercy has contributed £7000, an increase of £1000 over last year's collection. It will be remembered that the Royal founder of the Fund explained its object as being "to attach the sentiment of gratitude for the blessings which the country has enjoyed during the last 60 years to a scheme of permanent beneficence," and we re-echo the wish of the General Council of the Fund in hoping that year by year the Fund will continue surely and steadily to grow and will become a permanent memorial of the blessings of the long and beneficent reign of our late Sovereign, and one worthy of the great progress made by the nation in the years during which she reigned over it.

The year 1902 being the Coronation year of the KING even greater efforts than have been made in the past will, we trust, be made to increase the total receipts of all the hospital funds.

To release the hospitals from debt is a wish very near to the heart of the KING, and there is nothing which would

give His Majesty greater gratification than to know that in the year in which he was crowned his wish had been fulfilled.

#### SANITATION.

The question of registering and controlling itinerant manufacturers of penny ices has this year been actively taken in hand by the London County Council, thus following the example of the towns of Liverpool and Brighton. This is a subject which we brought prominently to notice so far back as in the year 1878, and yet even to-day the Italians still continue in making ices to expose the milk which they employ to very filthy surroundings. There is no reason why this business should not be controlled in the same manner as are milkshops and dairies. As we pointed out during the course of the year, these Italians are a thrifty, sober people, and there is no cause to apprehend that they would resist regulations that are as much to their own benefit as they are to that of the general public.

We likewise protested against the omission of laundries from the new Factory Bill. Our revelations with regard to the contamination of linen, also published many years ago, had led to the formation of what professed to be model steam and sanitary laundries. But over and above such efforts of private enterprise it is necessary that strict measures should be taken to prevent any possibility of clean linen being contaminated by close proximity in laundry establishments to soiled linen that may come from persons suffering from infectious diseases. With the recrudescence of small-pox and with travellers arriving in this country from places where plague prevails those who handle what is worn nearest to the skin should be carefully watched. Though the sanitary authorities have, with praiseworthy alertness and skill, so far succeeded in stamping out the danger of infection arising from the few cases of plague which have been imported into this country, no one can have read our description of the slums of Glasgow and feel altogether safe. What is particularly discouraging in Glasgow and many other places is the fact that much of the squalor, overcrowding, and filth that prevail is not due to poverty but to the thriftless, drunken habits of men and women who are in receipt of good wages. In regard to small-pox, however, and though it is now an old story, we recently recalled the fact when dealing with the sanitary condition of the town of Gloucester that the prevalence of this disease depended on the neglect of vaccination rather than on sanitation. The great epidemic of small-pox at Gloucester affected a quarter of the town where the density of population only amounted to 31.41 persons per acre. The older part of the town, where the poorer section of the population crowded together to the extent of 64.3 persons per acre and dwelt in ancient houses that were not so well drained or so well ventilated, practically escaped from the effects of the epidemic. This is a fact which, in face of the present prevalence of small-pox in the metropolis, is worth bearing in mind. In describing the sanitary condition of Edinburgh we come to quite the opposite conclusion in regard to the fatality due to measles. Here the average for the last three years showed that out of 100 cases of measles there had been 4.23 deaths in the Old Town district, where the greatest poverty and overcrowding existed. In the two other and more favoured districts the percentage of mortality in cases of measles was only 1.96 and 0.40. In the same articles the stringent laws enacted formerly to cope with plague and other epidemics were described, as also was the isolation hospital which is now in course of erection, and which will deal with these diseases in the future. We likewise gave an account of the Victoria Hospital for the Treatment of Consumption where, in a beautiful park in the outskirts of Edinburgh, the patients are kept constantly out of doors. In spite of the rigorous climate excellent results have been obtained.

From abroad we received a detailed account of the slow

progress made in Paris in the work of connecting the houses with the now completed system of drainage. What has been done, in spite of the organised resistance of the house proprietors, has materially contributed to reduce the prevalence of typhoid fever. But the most useful example given comes from the energetic action of M. MILLERAND, Minister of Commerce and the Post and Telegraphs. Drastic measures have been taken better to protect the health of the 70,000 postal servants in the employ of the French Government. The prevalence of tuberculosis among letter-sorters has led to the adoption of severe measures to prevent spitting on the floors of the post-offices and for the enforcement of greater cleanliness and the abolition of dry sweeping. Now only moistened dusters are employed. At the same time the position of the postal medical officers was much improved and the staff was increased. We then compared at length the position of the British and the French postal medical officers. The latter are paid in strict accordance with the amount of work that they do, receiving a regular salary for attending at the surgery during certain hours in the week and a separate fee for every visit paid to a patient in his own home. Then there are besides consulting physicians and surgeons for the more severe operations. In England there are no such complications. The club system has been adopted; but the postal medical officer receives 8s. 6d. per head for every employé on his list, instead of 4s. 4d., which is the usual price paid by the clubs and medical aid associations. But there are other indirect advantages that tend to improve the position of British postal medical officers. They have a large association with some 600 members and they have petitioned for the adoption in England of some of the reforms recently introduced in France.

#### THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

Sir WILLIAM SELBY CHURCH, Bart., was for the third time elected President, the practically unanimous vote of the Fellows testifying to their approval of the manner in which he had fulfilled the onerous position of head of the College.

At the meeting of the Comitia held on Jan. 31st the President proposed from the chair the following motion:—

"That this College humbly approach His Majesty the KING and express profound sorrow at the loss which His Majesty and the Royal Family have sustained, and at the same time assure him of our loyalty and devotion to his throne and person."

This having been adopted by the College, on March 20th an address was drawn up and presented by a deputation and a gracious reply was received.

Certain by-laws referring to the third or final examination were altered to render them conformable to the regulations of the Conjoint Board.

The most important discussion of the year took place in respect to the registration of medical students. The General Medical Council requires that no medical student shall be registered until he has passed a preliminary examination as required by the General Medical Council and has produced evidence that he has commenced his medical studies at a university or school of medicine, or at a scientific institution recognised by one of the licensing bodies and approved by the Council. It was to the last phrase that the Royal College of Physicians (and the Royal College of Surgeons) objected. After a prolonged discussion the College maintained their right to select the teaching institutions where elementary scientific studies might be pursued.

As a result of this discussion a motion was adopted to alter certain by-laws which will have the effect that in future proofs of registration by the General Medical Council will no longer be required from candidates for diplomas granted by the Conjoint Board.

Dr. NORMAN MOORE was elected as the representative of

the College on the General Medical Council for a term of five years from May 14th, 1901.

A fear had been expressed that the laboratories at the Examination Hall would have to be closed on account of lack of funds. It was, however, resolved that, provided the expenses were strictly limited to £1300, the College of Physicians would be prepared to bear their share as heretofore in carrying on the work of the laboratories.

A letter was received from Mrs. T. FITZPATRICK offering the sum of £2000 to found a lectureship at the College in the history of medicine in memory of her late husband, a Member of the College. The offer was gratefully accepted.

The Baly Medal was awarded to Dr. F. W. PAVY for his researches on the Physiology of the Carbohydrates: their Application as Foods and Relation to Diabetes. The following lectures were delivered during the year: the Milroy Lectures, by Dr. J. F. J. SYKES, on Public Health and Housing: the Influence of the Dwelling upon Health in Relation to the Changing Style of Habitation; the Lumleian Lectures, by Dr. F. J. PAYNE, on Cancer, especially of the Internal Organs; the Croonian Lectures, by Dr. W. D. HALLIBURTON, on the Chemical Side of Nervous Activity; and the Bradshaw Lecture, by Dr. JUDSON S. BURY, on Prognosis in Relation to Disease of the Nervous System. The Goulstonian Lectures were postponed owing to the illness of Dr. H. HEAD, but were subsequently delivered, the subject being Certain Mental Changes that accompany Visceral Disease. Dr. NORMAN MOORE was the Harveian orator for the year.

#### THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The thirteenth election of members of Council under the new regulations to fill the vacancies caused by the retirement in rotation of Mr. N. C. MACNAMARA, Mr. A. W. MAYO ROBSON, and Mr. W. WATSON CHEYNE was held in July. Mr. MACNAMARA did not apply for re-election, and Mr. MAYO ROBSON, Mr. WATSON CHEYNE, and Mr. CLEMENT LUCAS were elected. There were eight candidates, and 768 Fellows voted, but of these only 18 voted personally.

Mr. H. G. HOWSE was elected President and Mr. T. R. JESSOP and Mr. F. HOWARD MARSH were appointed Vice-Presidents.

The Hunterian Oration was delivered by Mr. N. C. MACNAMARA who took as his subject Craniology. The Hunterian dinner was not held in consequence of the death of Queen VICTORIA.

Mr. T. R. JESSOP delivered the Bradshaw Lecture on Personal Experiences in the Surgical Treatment of Certain Diseases.

The Triennial prize was not awarded, and for the next prize the subject chosen was "The Pathological Conditions Arising from Imperfect Closure of the Visceral Clefts."

The Jacksonian prize was awarded to Mr. W. MCADAM ECCLES for his essay on the Pathology, Diagnosis, and Treatment of the Diseases caused by, and connected with, Imperfect Descent of the Testicle. The subject for the next Jacksonian prize is Fracture of the Skull: its Consequences, Immediate and Remote, including Pathology and Treatment.

The Walker prize was not awarded and rules were framed for the Cartwright prize, which is to be awarded for some subject connected with dental surgery. Two members of 20 years' standing were elected to the Fellowship: Mr. J. PRIESTLEY SMITH of Birmingham and Major RONALD ROSS, late I.M.S., of Liverpool. Mr. THOMAS BRYANT was reappointed Representative of the College on the General Medical Council for a further period of five years. The annual meeting of Fellows was called for July 4th, but the quorum of 30 was not obtained and therefore once more no meeting was held. At the annual meeting of Fellows and Members in November 54 were present and a motion was

carried asking the Council to suggest some method by which the Members might be represented on the Council. Motions were also passed in favour of changes in the Medical Acts and of the election of the representative of the College on the General Medical Council by the Fellows and by Members of 10 years' standing. It was also resolved that the Council was unwise in opposing the action of the General Medical Council in the matter of institutions for the teaching of elementary science. The gross income of the College for the year was £26,104 and the expenditure was £23,989. The secretary of the College, Mr. EDWARD TRIMMER, M.A., resigned early in the year after 42 years' service and was presented with an address by the Council. He was granted a pension in consideration of his long service. The assistant secretary, Mr. SIBERT COWELL, was appointed secretary. The names of all members of the College who were admitted before 1843 have been removed from the Register except in cases where there is evidence of their being still alive. The College has sustained a serious loss in the death of Sir WILLIAM MAC CORMAC, Bart., K.C.B., K.C.V.O., who held the office of President of the College for five years.

#### THE BENEVOLENT AGENCIES OF THE PROFESSION.

##### *Royal Medical Benevolent College.*

This institution continues to carry on its useful work. From the funds of the charity a first-class education with clothing and maintenance is given to 50 foundation scholars, the orphans or necessitous sons of medical men, and pensions of £30 a year are given to 50 aged and distressed medical men or to the widows of those deceased. There are nine "Pugh" pensions of £30; three "Morgan" annuities of £20, for the aged daughters of medical men; and two "Da Silva" pensions of £20 for aged pensioners (in addition to their ordinary pensions); and under the will of the late Mr. FRANCE, who was a warm supporter of the college from its foundation, further pensions will soon be available for medical men, the choice of these being left in the hands of the Council. There are in connexion with the institution 11 presentations to the schools of St. Anne's Society for the daughters of medical men. As may be understood, in the case of an institution dating back about 50 years numerous old friends are lost by death year after year, so that fresh supporters are urgently required in order to maintain the good work. Annual subscriptions of one guinea give voting power, but the council emphasises the fact that small subscriptions are welcome. We are constantly urging the claims of this institution upon our readers, and may once more express the hope that those practitioners who do not now subscribe to the institution will become regular contributors, if only of 5s. a year. The secretary is Mr. J. B. LAMB, 37, Soho-square, W.

##### *British Medical Benevolent Fund.*

In the grant department the income of the British Medical Benevolent Fund has not been sufficient to cover the outlay, and additional subscriptions and donations are urgently needed to meet the constant demands upon this department. Had it not been for a balance brought forward from 1900 several most deserving cases would have been passed over. The income for the year from subscriptions and donations is £1400—a falling off of nearly £300 as compared with 1900—whilst £1614 have been voted for the relief of 155 applicants. The annuity account shows an income from investments of £2402, £2288 of which have been paid to 114 annuitants. Two legacies were received during the year—viz., £21 left by the late Mrs. MACKENZIE of Bury, and £100 by the late Sir EDWIN SAUNDERS.

##### *Society for Relief of Widows and Orphans of Medical Men.*

The grants given by this fund in 1900 amounted to £3034 10s. and the expenses to £244. The receipts totalled

£3388 8s. 6d. 47 widows and 14 orphans were assisted. The number of new members elected amounted to seven, while the society lost 17 members by death or resignation. The funded property is now £98,350. The accounts for 1901 have not yet been made up.

#### THE LANCET Relief Fund.

THE LANCET Relief Fund, which was established in 1889 by the proprietors of THE LANCET for the purpose of affording immediate pecuniary assistance to medical men or their widows and orphans in cases of distress and emergency, by grants of money on loan free of interest or by gifts, has assisted some 37 persons during the past year, involving an expenditure of £383 10s.—the largest sum allotted in any one year since the inauguration of the Fund. As the accounts are not made up till the end of the year there is a probability that these figures may fall short of the actual totals.

#### ANALYTICAL COMMISSIONS OF THE LANCET.

Several investigations involving experimental work in THE LANCET Laboratory were undertaken during the year. First in importance was that which related to the scope of arsenical contamination traceable to impure sulphuric acid. It was shown that the use of sulphuric acid was associated with the production of many articles of food and this fact prompted an experimental inquiry as to the presence of arsenic in many commonly occurring substances. Amongst those examined were tobacco, including cigars and cigarettes, jams, sweetmeats, lemonade, liqueurs, boric acid, oleic acid, soap, blacking, glycerine, effervescent salts, Glauber's salt, alum, fertilisers, lemon juice, lime juice, and grape juice. The results on the whole were reassuring. Arsenic was found in blacking, soap, artificial Carlsbad salts, Glauber's salt, and in artificial fertilisers. No arsenic could be traced in the articles of food examined. Nevertheless, it was pointed out that the lesson of the beer-poisoning epidemic should leave not the shadow of a chance of such a disaster occurring again. The danger involved by the use of sulphuric acid in the manufacture of all compounds intended for human consumption can be obviously avoided by the use of strictly pure sulphuric acid, and some rigid precautions are necessary which shall ensure the supply of arsenic-free sulphuric acid for these special purposes. We have no doubt that the Royal Commission on arsenic will make a strong recommendation to that effect.

In THE LANCET of March 2nd, 1901, we published an analysis of an "anti-rheumatic ring" in which we showed that it could not possibly possess any anti-rheumatic properties whatever. It consisted of metallic iron, and the fact that it formed a slight rust gradually on the moist finger persuaded some people that it effected the elimination of uric acid from the system. In THE LANCET of March 16th we raised an important point in regard to the amount of alcohol which may be normally developed in a natural wine. The question arose on the occasion of some South Australian wines being examined in THE LANCET Laboratory which showed a strength of as much as 29.0 per cent. of proof spirit, or even higher. It is generally laid down that the amount of alcohol produced in a normal fermentation does not usually exceed 12 per cent. by weight, which is equivalent to about 26 per cent. of proof spirit. According to the report of a special commission appointed by the Colonial Government to inquire into the alcoholic strength of South Australian wines the conclusion was that it was possible for a natural wine to contain as much as 38.5 per cent. of proof spirit or even a higher proportion. If this be so a difficulty is presented in raising a presumption as to when a wine is fortified.

In THE LANCET of March 23rd we drew attention to the fact that much of the bottled beer on the market is super-carbonated, not with its own gas, the gas of fermentation, but with artificial gas forced into the liquid in a similar way to that by which soda-water is made.

There is no doubt that beer so treated is dietetically inferior to beer charged with its own natural gas. Moreover, the practice is to be discouraged, as not improbably it may be used to pass off unsound and vapid beer as wholesome. In THE LANCET of April 20th we recorded the fact that sweets had come into our possession which had been liberally sprinkled with glass splinters in order to make them glitter. Our analysis showed the existence of sharp flakes of glass. The sweets were sent to us by a correspondent who thought possibly that they might account for the production of severe abdominal pain in two little children who were under his care. In spite of the fact that our analysis enabled us to say most positively that these glittering particles were glass, members of the confectionery trade were incredulous and were good enough to say that they did not believe our assertion. To do them justice we may add that we have since examined a great number of sweets, but in no other instance have we found glass to be used. We therefore regard the instance as an accident in the course of manufacture, but it might have been a very dangerous one. In THE LANCET of April 27th appeared an analysis of the deposit of the thermal springs at Bath. The deposit was taken from a pipe which had not been opened for 20 years, and since thousands of gallons had passed through the pipe it was thought to be possible that some of the rarer constituents might be found in tangible quantity. The analysis, however, as made in THE LANCET Laboratory showed only the presence of the salts of the alkaline earths, calcium sulphate, calcium carbonate, magnesium carbonate, and iron. There were, however, distinct traces of copper which have been reported to be found in the water in previous analyses by other observers. After all, the rare constituents of the Bath waters are probably soluble and such as would not occur in a deposit. In previous analyses of the water we found distinct evidences of the presence of lithium, strontium, and bromine. In THE LANCET of June 22nd we recorded the results of analyses of several coloured papers used by the London newspapers. Although we found Prussian blue and aniline dyes in the green and pink coloured evening papers there was no evidence of arsenic or other injurious ingredient. As old newspapers are often used as wrappers for food the results were of interest, but, as was pointed out, there can be little doubt that newspapers might easily become tainted with pathogenic germs, and on that account it is desirable that care should be taken to wrap food, not in newspapers which are exposed to all sorts of infective risks, but in paper specially prepared for the purpose.

In a special article in THE LANCET of July 13th a full description was given of an improved form of the Finsen apparatus for the treatment of lupus by light rays.

An analysis was made in THE LANCET Laboratory of an artificial flower and the results were recorded in our issue of July 20th. The flower was supposed to be a carnation and it possessed a scent similar to that of the carnation. A laboratory examination, however, showed that there was not the vestige of a carnation about it. The flower consisted of slices of turnip neatly cut and dyed with acid magenta, the stems and leaves were of twisted cloth dyed a dark green with chromium, the bloom was a very fine starch powder delicately dusted over the stems and leaves, and the support to the whole clever fabric was a concealed iron wire. Lastly, a synthetic amber-coloured oil completed the deception in giving a perfume wonderfully imitative of the genuine carnation. It is satisfactory to add that in spite of this clever deception there was no evidence of the presence of injurious colourings or other substances.

Our Analytical Commissioners took occasion during the hot summer months to secure samples for analysis of ice in

London representing the ice commonly supplied for cooling drinks and for other purposes. It was found that most of the ice supplied in London shops was Norwegian ice and that, moreover, it was of excellent quality, pure and clean. The water which was yielded on melting contained less than a grain per gallon of dissolved mineral matter, no nitrogen in organic or mineral shape, and but a trace of chlorides. This result confirmed the previous results obtained by THE LANCET Special Analytical Sanitary Commission on the Character and Quality of the Ice-supply of London in 1893. One curious fact came to light during the experiments and that was that when pure ice such as Norwegian ice is allowed to melt in a leaden vessel the resulting water will be found to be contaminated with a very appreciable amount of the lead. On another occasion we pointed out the undesirability of exposing food for sale in the streets. In one particular instance a piece of salmon bought at a fishmonger's shop in a street at a time when new "pickled" wooden blocks were being laid down evinced a strong odour and taste of naphthalene, showing how easily articles of food so exposed can become contaminated.

Quite recently some laboratory experiments have been made with a new gas stove known as the Clamond Gas Radiator, the inquiry being more particularly directed to the points of view of heating efficiency and health. We may briefly recapitulate the results. It was shown that this new gas-heating appliance was remarkable in producing radiant heat presenting the appearance of a bright, cheery fire. The consumption of gas in regard to the heating effect upon the air of a room was remarkably small, while no vitiating effect upon the air could be traced. These excellent results may be attributed to the fact that the radiator is constructed with the Kern burner, a burner which produces a very intense atmospheric flame the result of the combustion of five and a half volumes of air with one volume of gas, the exact ratio requisite for complete combustion. It was therefore regarded as a distinct advance on all other gas-heating appliances, being economical, efficient, and healthy. For its efficient working the stove requires, however, a steady gas-supply and constant and sufficient pressure. A number of practical experiments were made, as will be seen from the report which appeared in THE LANCET of Nov. 30th, which we venture to think justified the above conclusions.

The number of specimens of food, drugs, and other articles examined in THE LANCET Laboratory and reported on in our columns was 107, and the number of individual analytical investigations thereby involved was 323. In connexion with special work, some 142 analytical observations were made, bringing up the total to 465.

#### THE HOUSING OF THE POOR.

The fact, possibly, that so many volunteers and recruits have had to be rejected because they did not come up to the military physical standard may, in a measure, account for the increased interest manifested this year in regard to the housing problem. Undoubtedly overcrowded dwellings, especially in populous and large towns, must result in physical degeneration. In the earlier months of the year we gave in a series of articles an account of what both the Metropolitan Board of Works and its successor the London County Council have done and what the latter body is now doing to provide healthier and cheaper dwellings for the working classes. It was no easy matter to give a condensed account of so many and such complicated schemes together with an analysis of the law on the subject. But this work was all the more necessary in consequence of the recent creation of district and town councils and the extensive powers given to them, including the right to purchase land for housing purposes outside of their own boundaries. The application of Part III. of the Act, now much more

general, gives good promise, because it enables local authorities to purchase and to keep land, so that in time they may hope to recoup the outlay which they incur out of the rents that they will receive from their tenants. But, nevertheless, we showed that the law was still far too complicated and its application too costly. Therefore, though a great deal has been achieved and much more is promised, still, so far as London is concerned, the realisation of all the outstanding projects will at best only serve to prevent the present grievances from becoming worse. The number of people to be housed by the County Council only keeps pace with the increase of population. Therefore, unless a good deal more is done than is at present contemplated, matters will remain much as they are, unless, of course, some unforeseen cause were to check the flow of new residents to the metropolis.

#### The Glasgow Congress.

During the Glasgow International Exhibition many congresses met in that city, and we described the lengthy and varied discussions which were then held on this grave problem. The International Congress of Engineers dealt with it at length, and there was an important debate on the subject in one of the sections of the British Association which likewise met at Glasgow. Finally, the Glasgow Town Council conceived the excellent idea of convoking a conference of municipal representatives from all parts of the kingdom to relate what they had done in their respective towns and to debate on the best means of proceeding. A reference to the lengthy descriptions we gave of these discussions<sup>1</sup> will show that throughout there was a dual current of opinion. There were those who were concerned with the deserving poor and there were others who were far more anxious about the undeserving poor. From the sanitary point of view the latter certainly create the most urgent problem. Much has already been done for the deserving poor, and the great fault of all the schemes that have been carried out is that they provide homes for a respectable class of tenants who do not occasion any great danger to the public health. The thriftless and the drunkards, the very filthy and degraded sections of the population still herd together in unspeakable hovels and rookeries, or degrade any better class of property to which they may gain access. To meet this danger a dual system of coercion was proposed. First, the municipalities, it was suggested, should build shelters at the cheapest possible rates, where the rent charged ought not to be more than 1s. per week per room. To these anyone, however disreputable, was to be admitted; but, once within, such tenants were to be severely watched and coerced into living fairly cleanly and healthy lives. Second, once this accommodation had been provided then another resort to coercion was to be made, and this time against all farmers-out of tenements and lodgings who allowed overcrowding and filthy habits on their premises. Many other and very important questions were discussed, but the suggestion just mentioned was the most original that was made during these conferences and congresses.

#### THE ORGANISATION OF THE PROFESSION.

In regard to the work of organisation undoubtedly the meeting of the British Medical Association at Cheltenham was the greatest event of the year. Here a new constitution for the Association was adopted which if carried out in letter and spirit would convert this great Association into a fighting union capable of taking up all the ethical and economic questions and grievances which have troubled the profession for so long. But this proposed change is so sudden, so radical, and so sweeping that it is impossible to avoid the expression of some doubts. The special descriptions which we published of the general meetings where all these mighty changes were adopted cannot be taken as very encouraging.

<sup>1</sup> THE LANCET, Oct. 5th (p. 943) and 19th, 1901 (p. 1081).

The majority of the members of the British Medical Association were lured away by the attractions of numerous garden-parties and only a zealous few remained to inaugurate the most potential alterations. The answer, of course, to these criticisms is that the lukewarm members of the Association who at Cheltenham neglected these business matters were not delegates. It therefore remains to be seen whether on the next occasion a sufficient number of earnest delegates will be elected to accomplish useful work. In the meanwhile we repeat now what we said at the time—namely, that the independent local unions must continue the task which they have taken up and are accomplishing with a considerable measure of success. During the year we have continued to describe the action and history of these organisations. We commenced with the medical unions organised in the counties of Durham and Northumberland, where now a good half of the medical practitioners are associated together so as to defend their economical interests and to create a higher school of ~~•~~unics among the members of the profession. In these counties the chief struggle has been with the medical aid organisations formed among the mining population. For the most part the miners only paid 6*d.* a fortnight for medical aid, and this was doubtless sufficient when the system was first started, some 50 years ago, for in those days the wages earned were much less than they are now. On the other hand, the cost of medical education was not so heavy and a great deal of the work was done by unqualified assistants. The present and altered conditions could, it was felt, only be met by raising the fortnightly subscription from 6*d.* to 9*d.* In many districts this increase has been obtained through the united action of the colliery surgeons and the strength of their unions. But in the towns, as for example Newcastle, Gateshead, South and North Shields, and Sunderland, the grievance in regard to friendly societies, clubs, and insurance companies exists as in the other principal towns of the kingdom. This phase of the question is not neglected, though as yet less has been done for the town practitioners than for the colliery surgeons in these two counties. The movement, however, is still only in its infancy and no complaint can be made as to loss of time. Premature action only courts disaster. It is strongly felt, especially in Northumberland, that every local practitioner must be induced to sign an agreement promising his support before a demand is made. This necessitates an immense amount of negotiation, correspondence, and many personal interviews. The practitioners of Northumberland and Durham are fortunate in having found presidents and committee-men to manage their unions who do not shrink from undertaking this arduous task and who readily incur all the loss of time and the trouble which it entails.

In the latter part of the year we described the formation, history, and action of the Birmingham and District Medical Practitioners' Union, which has now been in existence just two years. It was brought into being by the attempt to create a Consultative Institute at Birmingham and has now become a vigorous body. The consultants as well as the general practitioners came into line to prevent the formation of the proposed institute, and this first effort has proved successful; the institute has ceased to exist. Now the Birmingham practitioners are collecting data and statistics so as to attack other abuses, and in the meanwhile they are standing shoulder-to-shoulder with their fellow practitioners of Coventry who are struggling against the abuses of the Provident Dispensary in that neighbouring town. Taken altogether there has been steady progress all along the line, though an enormous amount of work still remains to be done.

#### HONOURS TO MEDICAL MEN.

The opening year of a new century has been by no means barren of honours for the medical profession, but a gloom is cast over our otherwise pleasing task of recording those

honours by reason of the sudden death in the <sup>last</sup> month of the year of Sir WILLIAM MAC CORMAC, Bart., in whose path more than in that of any other man during the year 1901 honours were strewn with gratifying profusion both to him and to the profession to which he belonged. In addition to the honours which we enumerate below the freedom of more than one of the City companies was bestowed upon him, while America honoured him by electing him a Foreign Associate Fellow of the College of Physicians of Philadelphia, the oldest medical body in America, founded as it was by BENJAMIN RUSH and other distinguished men in 1787, and H.M. the KING of ITALY conferred upon him the degree of Grand Officer of the Order of the Crown of that country.

By far the greater portion of the honours and distinctions which have fallen to our profession have been in connexion with service in South Africa and we are proud to know that three more medical heroes have been added to the roll of the Victoria Cross. Their names and the records of the gallant deeds for which they earned the distinction for valour are as follows:—

Lieutenant E. T. INKSON, R.A.M.C., on Feb. 24th, 1900, carried Second-Lieutenant DEVENISH (who was severely wounded and unable to walk) for three or four hundred yards under a very heavy fire to a place of safety. The ground over which Lieutenant INKSON had to move was much exposed, there being no cover available.

Lieutenant W. H. S. NICKERSON, R.A.M.C., attached to Mounted Infantry, at Wakkerstroom, on the evening of April 20th, 1900, during the advance of the infantry to support the mounted troops, went, in the most gallant manner, under a heavy rifle and shell fire, to attend a wounded man, dressed his wounds, and remained with him till he had him conveyed to a place of safety.

Lieutenant H. E. M. DOUGLAS, R.A.M.C., on Dec. 11th, 1899, during the action at Magersfontein, showed great gallantry and devotion under a very severe fire in advancing in the open and attending to Captain GORDON, Gordon Highlanders, who was wounded, and also attending to Major ROBINSON and other wounded men under a fearful fire. Many similar acts of devotion and gallantry were performed by Lieutenant DOUGLAS on the same day.

These officers have now been promoted to the rank of Captain.

The first Gazette in recognition of the services of officers during the operations in South Africa relating to services up to Nov. 29th, 1900, the day on which Field-Marshal Lord ROBERTS handed over the command, was issued in April. In the Royal Navy it contained the name of Staff Surgeon ERNEST COURTNEY LOMAS, R.N., who was made a Companion of the Distinguished Service Order. In the Army the following Companions of the Military Division of the Most Honourable Order of the Bath were created:—Colonel WILLIAM FLACK STEVENSON, R.A.M.C., Professor of Surgery at the Army Medical School, Netley, principal medical officer on the line of communication in South Africa; Colonel (local Surgeon-General) JAMES FRANCIS SUPPLE, R.A.M.C.; Lieutenant-Colonel (local Colonel) WILLIAM DONOVAN, R.A.M.C., principal medical officer, Cavalry Division; Lieutenant-Colonel (local Colonel) OSWALD GILLESPIE WOOD, R.A.M.C.; Lieutenant-Colonel (local Colonel) ALFRED KEOGH, R.A.M.C.; and Colonel W. D. C. WILLIAMS, New South Wales Army Medical Corps; while Sir WILLIAM MAC CORMAC, Bart., K.C.V.O., consulting surgeon to the forces, received a Knight Commandership of the Order. The following consulting surgeons to the forces received Companionships of the Order:—Sir THOMAS NAGHTEN FITZGERALD, Kt., Sir WILLIAM THOMSON, Kt., Mr. ALFRED DOWNING FRIPP, M.V.O., Mr. GEORGE HENRY MAKINS, Mr. (now Sir) FREDERICK TREVES, M.V.O., Mr. WILLIAM WATSON CHEYNE, Mr. GEORGE LENTHAL CHEATLE, Dr. KENDAL FRANKS, and Dr. JOHN CHIENE. The following

were made Knight Commanders of the Most Distinguished Order of St. Michael and St. George:—Surgeon-General WILLIAM DEANE WILSON, A.M.S., principal medical officer in South Africa; and Colonel THOMAS JOSEPH GALLWEY, C.B., R.A.M.C., principal medical officer of the Infantry Division in South Africa; whilst Companionships of the Order were conferred upon Colonel EDMOND TOWNSEND, C.B., R.A.M.C., principal medical officer, 1st Infantry Division in South Africa; Surgeon-Lieutenant-Colonel HENRY FRANK HENSMAN, retired, late 1st Life Guards; Lieutenant-Colonel (local Colonel) ARTHUR THOMAS SLOGGETT, R.A.M.C.; Lieutenant-Colonel (local Colonel) JOHN FRANCIS WILLIAMSON, R.A.M.C.; Lieutenant-Colonel (local Colonel) PERCY HERBERT JOHNSTON, R.A.M.C.; Major (now Lieutenant-Colonel) WALTER GEORGE AUGUSTUS BEDFORD, R.A.M.C., secretary to the Principal Medical Officer in South Africa; Major GEORGE WASHINGTON BRAZIER-CREAGH, R.A.M.C.; Major FREDERICK SAMUEL HEUSTON, R.A.M.C.; Surgeon-Major (local Lieutenant-Colonel) CHARLES R. KILKELLY, Grenadier Guards; Major WILLIAM RICE EDWARDS, I.M.S.; Major HENRY ALFRED CUMMINS, R.A.M.C.; Surgeon-Lieutenant-Colonel E. B. HARTLEY, V.C., C.M.S.C.; Dr. A. A. SCOT SKIRVING (Yeomanry Hospital); Mr. J. P. BUSH (Princess Christian's Hospital); Dr. D. WALLACE (Edinburgh Hospital); Mr. H. E. CLARK (Scottish National Hospital); Mr. A. A. BOWLBY (Portland Hospital); Dr. H. H. TOOTH (Portland Hospital); and Dr. J. W. WASHBOURN (Yeomanry Hospital). The Distinguished Service Order was bestowed upon Major (now Lieutenant-Colonel) RICHARD WILLIAM FORD, R.A.M.C.; Major (now Lieutenant-Colonel) THOMAS JOSEPH O'DONNELL, R.A.M.C.; Major ROBERT JAMES LEECH FAYLE, R.A.M.C.; Major WILLIAM WATSON PIKE, R.A.M.C.; Captain ERNEST CHESTER ANDERSON, R.A.M.C.; Captain JOHN HAY CAMPBELL, R.A.M.C.; Captain PERCY JOHN PROBYN, R.A.M.C.; Captain ARTHUR WINSMORE HOOPER, R.A.M.C.; Lieutenant JOHN JOSEPH WHITWORTH PRESCOTT, R.A.M.C.; Lieutenant HENRY EDWARD MANNING DOUGLAS, V.C., R.A.M.C.; Major T. H. FIASCHI, New South Wales Army Medical Corps; Captain A. T. DUKA, A.M.C., Queensland Defence Force; Surgeon-Lieutenant (temporary Captain) C. B. KEENAN, Lord Strathcona's Corps; Surgeon-Captain R. C. PERKINS, Brabant's Horse; Surgeon-Major F. A. HOLMDEN, British South Africa Police; Captain J. J. BROWNLEE, Cape Medical Bearer Corps; Surgeon-Major W. F. F. DAVIES, Imperial Light Horse; Captain G. E. HEBERDEN, medical officer, Kimberley Light Horse; Surgeon-Major J. A. J. SMITH, Kimberley Regiment; and Major J. HYSLOP, principal medical officer, Natal Volunteers.

A second Gazette was issued in October and dealt with the same period of services as the foregoing. A Companionship of the Order of the Bath was given to Surgeon-Lieutenant-Colonel JAMES MAGILL of the Coldstream Guards and a Companionship of the Order of St. Michael and St. George to Surgeon-Major WALTER CALVERLEY BEEVOR of the Scots Guards. Companionships of the Order of the Bath were also given to Surgeon-General JAMES ALBERT CLERY, R.A.M.C.; Lieutenant-Colonel ARTHUR PATRICK O'CONNOR, R.A.M.C.; Major (now Lieutenant-Colonel) THOMAS RASHLEIGH LUCAS, R.A.M.C.; and Major (now Lieutenant-Colonel) FRANCIS AUGUSTUS BONNER DALY, R.A.M.C. Companionships of the Order of St. Michael and St. George were conferred upon Surgeon-General WILLIAM HENRY MACNAMARA, R.A.M.C.; Colonel RICHARD EXHAM, R.A.M.C.; Lieutenant-Colonel JOHN COTTER DORMAN, R.A.M.C.; Major (now Lieutenant-Colonel) HENRY JAMES PEARD, R.A.M.C.; Major SAMUEL FOSTER LOUGHEED, R.A.M.C.; Major ALEXANDER FRASER RUSSELL, R.A.M.C.; Major SINCLAIR WESTCOTT, R.A.M.C.; Major ROGER KIRKPATRICK, R.A.M.C.; Major ROBERT JOHN SHAW SIMPSON, R.A.M.C.;

Major THOMAS WILLIAM O'HARA HAMILTON, R.A.M.C.; Major SAMUEL FOSTER FREYER, R.A.M.C.; Major NICHOLAS CHARLES FERGUSON, R.A.M.C.; Major HUGH CHAMPEYNS THURSTON, R.A.M.C.; and Major OLIVER RICHARD ARCHER JULIAN, R.A.M.C. The following received the Distinguished Service Order: Major ROBERT JAMES GEDDES, R.A.M.C.; Major ALEXANDER ARTHUR SUTTON, R.A.M.C.; Captain FREDERICK SMITH, R.A.M.C.; Captain HENRY JULES PARRY, R.A.M.C.; Captain FREDERICK JOSEPH WILLIAM PORTER, R.A.M.C.; Captain HERBERT JOHN MARTIN BUIST, R.A.M.C.; Captain EDGAR MONTAGU PILCHER, R.A.M.C.; Lieutenant (now Captain) CHARLES JOHN O'GORMAN, R.A.M.C.; Lieutenant (now Captain) ROBERT STRICKLAND HANNAY FUHR, R.A.M.C.; Lieutenant GEORGE GOSLETT DELAP, R.A.M.C.; Lieutenant HOWARD ENSOR, R.A.M.C.; and Lieutenant LANGFORD NEWMAN LLOYD, R.A.M.C. Mr. GEORGE STOKER and Dr. JAMES BYRNE COLEMAN, of the Irish Hospital, and Dr. HERBERT JOHANN SCHARLIEB, of Langman's Hospital, received Companionships of the Order of St. Michael and St. George; as did also Major CHARLES STONHAM of the Yeomanry Hospital. Mr. JOHN LYNN THOMAS was made a Companion (Civil Division) of the Order of the Bath, and Mr. ROBERT HERBERT MILLS-ROBERTS a Companion of the Order of St. Michael and St. George. Both these gentlemen were connected with the Welsh Hospital. Companionships of the Order of St. Michael and St. George were also conferred upon Dr. FRANCIS BOYD of the Edinburgh Hospital; Deputy Surgeon-General HENRY CAYLEY, honorary surgeon to the King (late Indian Medical Service), of the Scottish National Hospital; and Dr. JOSEPH ERNEST GOODFELLOW CALVERLEY of the Portland National Hospital. Major W. L'ESTRANGE EAMES (Medical Corps), New South Wales Contingent, was made a Companion of the Order of the Bath. The following members of the Imperial Yeomanry received the Distinguished Service Order: Captain PERCIVAL DAVIDSON, medical officer, 5th Battalion; Captain W. J. NAISMITH, medical officer, 6th Battalion; and Captain ERNEST HOPKINSON, medical officer, 15th Battalion.

For services rendered in the operations in China Colonel J. T. B. BOOKEY, I.M.S., was appointed Companion of the Bath. The following officers were appointed to Companionships of the Order of the Indian Empire for services in the same operations: Lieutenant-Colonel W. J. R. RAINSFORD, R.A.M.C., Major J. J. C. WATSON, R.A.M.C., and Lieutenant-Colonel L. A. WADDELL, I.M.S.

For operations in West Africa the following distinctions were granted: JOHN BINNEY HAY, M.B., C.M. Edin., of the Gold Coast Medical Service, was made a Companion of the Order of St. Michael and St. George in recognition of his services in the siege of Coomassie; and Surgeon-Captain WILLIAM FLETCHER, Militia Medical Staff Corps, received the Distinguished Service Order in recognition of his services in Ashanti.

The new year's list of honours—the last, alas, to be issued by Queen VICTORIA—contained the names of THOMAS BARLOW, M.D., F.R.C.P. Lond., and WILLIAM SELBY CHURCH, M.D. Oxon., F.R.C.P. Lond., who had had baronetries conferred upon them. Among the Knight Commanders of the Order of the Bath was the name of Sir WILLIAM TURNER, M.B. Lond., F.R.C.S. Eng. & Edin., the President of the General Medical Council. In the Order of St. Michael and St. George, MAXIMILIAN FRANK SIMON, M.D. St. Andrews, late principal civil medical officer of the Straits Settlements, was made a Companion, and in the Order of the Indian Empire Major JOHN CRIMMIN, V.C., I.M.S., was made a Companion. Among those who received the honour of knighthood was HUGH ADCOCK, C.M.G., L.R.C.P. Edin., M.R.C.S. Eng., while Colonel JAMES SUTHERLAND WILKINS, I.M.S., and ARTHUR NEVF,

F.R.C.S., L.R.C.P. Edin., were decorated with the Kaisar-i-Hind medal for "public service in India." This last decoration was also conferred upon Major HERBERT EDWARD DEANE, R.A.M.C. Major THOMAS EDWARD DYSON, I.M.S., Lieutenant-Colonel JAMES McCLOUGHRY, I.M.S., and Captain EDMUND WILKINSON, I.M.S., on the KING's Birthday. On the same occasion Sir GEORGE ANDERSON CRITCHETT received his knighthood, and Lieutenant-Colonel G. H. D. GIMLETTE, I.M.S., was appointed a Companion of the Order of the Bath.

During the year the KING appointed Lord LISTER to be Sergeant-Surgeon-in-Ordinary to His Majesty and the late Sir WILLIAM MAC CORMAC, Bart., and Sir THOMAS SMITH, Bart., Honorary Sergeant-Surgeons to His Majesty.

The following appointments in the Royal Victorian Order have been made:—Sir JAMES REID, Bart., K.C.B., Knight Grand Cross; Sir RICHARD DOUGLAS POWELL, Bart., Sir THOMAS BARLOW, Bart., Sir WILLIAM BROADBENT, Bart., Deputy-Surgeon-General H. J. BLANC, Mr. FREDERICK TREVES, C.B., Sir THOMAS SMITH, Bart., and Mr. WILLIAM HENRY BENNETT, Knight Commanders; Mr. DONALD WILLIAM CHARLES HOOD, Mr. JOHN HAMMOND MORGAN, Mr. CHARLES ARTHUR MORRIS, and Mr. ALFRED DOWNING FRIPP, Commanders; and Dr. A. R. MANBY and Dr. W. AUGUSTINE ELLISON, Members of the Fourth Class of the Order.

Miss LILLIE EMMA VAHINE-É-TUA SAVILLE, L.S.A. Lond., M.D. Brux., of the London Mission, received from the KING the decoration of the Royal Red Cross in recognition of services at the International Hospital during the siege of the Legations at Peking.

Sir JAMES GRAHAM, M.A., M.D. Edin., M.B. Sydney, the Mayor of Sydney, was knighted by the Duke of Cornwall and York on May 29th at a *levée* held at Government House, Sydney.

In bringing to a close this list of representatives of the profession of healing who have done noble work in the calling to which they belong we regret—and our regret, we know, is shared by every member of the medical profession—that Surgeon-General J. JAMESON, C.B., the late Director-General of the Army Medical Staff, has not been the recipient of well-deserved honour.

#### OBITUARY.

It is necessary for us year by year to tell the tale of those who are gone from us. The present list is not so heavy as was that for the year 1900—a fact which is mainly due to the change which came over affairs in South Africa after the occupation of Pretoria. Since then we may say that, after a fashion, the war ceased and military operations took its place—namely, guerilla warfare, but there have been few set engagements. Following our usual custom, we have divided the deaths among members of the profession into classes as under.

##### *Royal Navy Medical Service.*

The senior service has lost few by death so far as medical officers are concerned. The first naval name which appears in our obituary columns is that of EDWARD HOMES CREE, M.D. Edin., M.R.C.S. Eng., L.S.A. Lond., who passed away at the advanced age of 87 years, and spent the first half of his professional life in the Royal Navy. He served through the first Chinese war and the Crimean war, and in 1869 he retired from the service with the rank of deputy inspector-general of hospitals. He had five sons, all in the medical profession, two of whom entered the Royal Navy Medical Service and three of whom entered the Army Medical Service.—HENRY PIERS, M.R.C.S. Eng., L.S.A. Lond., was educated at Guy's Hospital and entered the Naval Medical Service in 1846. He served in the Franklin relief expedition which started in 1850 and on his return served in the

West Indies. He finally became Deputy Inspector-General of Hospitals and Fleets and died in his eighty-fourth year.

##### *Army and Indian Medical Services.*

WILLIAM JOHNSTONE FYFFE, M.D. Dub., L.R.C.S. Irel., who died, aged 76 years, on May 17th, entered the Army Medical Department about 1848, and at first served in Jamaica. He afterwards served in the Crimea and later was assistant professor of medicine at Netley. About 30 years ago he retired with the rank of deputy surgeon-general and set up in practice at Clifton, where he became physician to Clifton College.—Lieutenant-Colonel DAVID CHARLES DAVIDSON, L.R.C.P., L.R.C.S. Edin., who died, aged 50 years, on May 2nd, was for some time surgeon to the Dorset County Hospital and in 1887 entered the Indian Medical Service. In 1894 he was made professor of surgery to the Sir Jamsetjee Jejeebhoy Hospital and lecturer in the Grant Medical College.—RICHARD DOMENICHETTI, M.D. Edin., who died on July 12th at the age of 78 years, graduated in medicine at Edinburgh in 1845, entered the army and served first with the 8th King's Regiment and afterwards with the Gordon Highlanders (75th Regiment). He served through the Mutiny and was left in charge of the sick and wounded in the Alum Bagh after the relief of Lucknow. After retiring from the service with the rank of deputy inspector-general he acted for 25 years as medical officer of health at Louth, Lincolnshire. In 1896 he was appointed honorary physician to Queen VICTORIA, and in 1897 he received the Queen's Jubilee medal.—Colonel G. H. FETHERSTON, M.D. Melb., who died at the age of 72 years, settled in Victoria in 1860. He was principal medical officer to the Victorian Military Forces and held in addition some important civil posts.—WILLIAM GEORGE NICHOLAS MANLEY, C.B., V.C., M.R.C.S. Eng., who died on Nov. 16th, aged 60 years, entered the army in 1855. He was sent to the Crimea and remained out there until the fall of Sebastopol. In the New Zealand war of 1864 he served with the Royal Artillery, and it was at the assault on the Gate Pah, in which he took part as a volunteer, that he performed the action—namely, that of trying to save Commander HAY and other wounded comrades—for which he was awarded the Victoria Cross. He served with the British ambulance during the Franco-German war and also through the Afghan war of 1878 and the Egyptian campaign of 1882. He retired from the army in 1884.—Surgeon-General ROBERT HARVEY, C.B., D.S.O., M.D. Aberd., F.R.C.P. Lond., was Director-General of the Indian Medical Service. He was born at Aberdeen in 1842 and received his medical education both at Glasgow and Aberdeen Universities. In 1864 he entered the Army Medical Department, but in 1865 he left this service and entered the Indian Medical Service and was at once set to work by being sent on the Bhutan campaign. After other war services he was made civil surgeon at Simla, and thenceforward held civil appointments until 1890, when he was made principal medical officer at Peshawur. After other commands he was in 1898 made Director-General of the Indian Medical Service.

##### *Hospital Physicians and Surgeons.*

The past year has caused the usual gaps in the ranks of those who serve our hospitals as physicians and surgeons. Very early in the year there died JOHN BAPTISTE POTTER, M.D. Edin., F.R.C.P. Lond., the obstetric physician to Westminster Hospital. He was the son of CIPRIANI POTTER, the well-known musician, and was educated at the Kensington Grammar School and at University College Hospital. He was but 61 years of age at the time of his death.—ARCHIBALD HAMILTON JACOB, M.D. T.C.D., F.R.C.S. Irel., who died on Jan. 12th was a well known Irish practitioner, who was for many years professor of ophthalmology in the Royal College of Surgeons in Ireland. In 1880 he was appointed oculist-in-ordinary to His Excellency the Lord Lieutenant, a

position which he continued to hold until the time of his death.—BOWATER JOHN VERNON, F.R.C.S. Eng., who was educated at Marlborough School, the Sussex County Hospital, and St. Bartholomew's Hospital, was one of the two surgeons appointed to the care of the ophthalmic wards at the latter hospital when they were first opened in 1870. He continued to discharge his duties in this position until the very day before his death. All old St. Bartholomew's men will ever cherish his memory.—LESLIE OGILVIE, M.B., C.M. Edin., M.R.C.P. Lond., who died from acute pneumonia, was in company with a few professional friends the practical founder of the Paddington Green Children's Hospital, of which he was senior physician at the time of his death. He was a man of great charm, a good linguist and devoted to literature and music.—WILLIAM JAMES FLEMING, M.D. Glasg., for many years taught clinical surgery at the Glasgow Royal Infirmary, was lecturer on surgery at Queen Margaret College, and examiner in surgery to Glasgow University. He was also surgeon to the Royal Hospital for Sick Children.—GEORGE STONE, L.R.C.P. & S. Edin., practised for many years as an aural and ophthalmic surgeon in Liverpool, being on the staff of the Liverpool Ear and Eye Infirmary.—Sir EDWIN SAUNDERS, F.R.C.S. Eng., the well-known dental surgeon, was for some 50 years dental surgeon to Queen VICTORIA. He was practically the founder of the Dental Hospital of London.—WILLIAM MOORE, M.D. Dub., F.R.C.P. Irel., who died, aged 75 years, was one of the foremost of his profession in Ireland. In 1885 he was made physician-in-ordinary to the Queen in Ireland and on Her Majesty's death he was appointed to the same post in His Majesty's household.—JOHN CAVAFY, M.D., F.R.C.P. Lond., was of Greek descent. He was educated at Brighton, University College, London, and St. George's Hospital. Besides many other appointments held at various times he was senior physician to St. George's Hospital, a post which he resigned on account of failing health in 1898.—JAMES GRIFFITH HALL, M.R.C.S. Eng., J.P., was a well-known practitioner in Swansea. At the time of his death he was consulting surgeon to the Swansea Hospital and had been for a long period surgeon to Swansea Gaol.—THOMAS BOND, F.R.C.S. Eng., will go down to posterity as a great expert in the medico-legal aspect of criminal cases. He was surgeon to the A Division of police and to Westminster Hospital.—CARSTEN HOLTHOUSE, F.R.C.S. Eng., who died at the ripe age of 91 years, was formerly senior surgeon to Westminster Hospital. At the time of his death he was senior of the very few surviving original Fellows of the Royal College of Surgeons of England. RICHARD CHARLES SHETTLÉ, M.D. St. And., M.R.C.S. Eng., practised for many years in Reading, where he was physician to the Royal Berkshire Hospital. Besides his more purely professional work he was deeply interested in electricity.—JULIUS St. THOMAS CLARKE, M.D., M.S. Lond., F.R.C.S. Eng., was senior surgeon to the Leicester Infirmary. Some eight months before his death he was shot through the sacrum by a homicidal maniac.—DAVID FRANCIS SITWELL CAHILL, M.D. Edin., carried on an extensive practice in the Border district and was consulting physician to the Berwick Dispensary.—JOHN GRIFFITH, F.R.C.S. Eng., who died at the early age of 35 years, was senior clinical ophthalmic assistant at St. Mary's Hospital and assistant surgeon to the Royal Westminster Ophthalmic Hospital.—ALFRED EDWARD AUST LAWRENCE, M.D. Aberd., who died very suddenly, was a prominent practitioner in the West of England and at the time of his death was consulting physician-accoucheur to the Bristol General Hospital.—WILLIAM LAKE ROBERTS, M.R.C.S. Eng., practised in Bradford for some 30 years and was senior honorary surgeon to the Bradford Royal Infirmary.—THOMAS VINCENT JACKSON, F.R.C.S. Edin., J.P., received his medical education at University College Hospital

and afterwards settled in Wolverhampton, where he became surgeon to the Wolverhampton and Staffordshire General Hospital.—EDWARD HARRIMAN DICKINSON, M.D. Edin., F.R.C.P. Lond., received his medical education at Edinburgh University and at St. George's Hospital. He settled in Liverpool and was physician to the David Lewis Northern Hospital for over 30 years.—ROBERT HEPBURN, L.D.S.R.C.S. Eng., who died at the age of 92 years, had a large practice as a dentist and was instrumental with Sir EDWIN SAUNDERS in founding the Dental Hospital of London.—HENRY SUTHERLAND, M.D., M.A. Oxon., who died at the age of 59 years, came of a long line of psychological physicians. He received his medical education at St. George's Hospital and at Addenbrooke's Hospital, Cambridge, as well as at Oxford where he graduated in medicine. After working under Dr. (now Sir) JAMES CRICHTON BROWNE at the Wakefield West Riding County Lunatic Asylum he came to London and was appointed lecturer on Psychological Medicine to the Westminster Hospital. He was also physician to the St. George's, Hanover-square, Dispensary. Apart from his professional work, he was a prominent Freemason and in his younger days a well-known fencer.—WILLIAM RICHARD ROGERS, M.D. Heidelb., M.R.C.P. Lond., was born in 1817. He was for 24 years physician to the Samaritan Hospital and was also consulting surgeon to the Grosvenor Hospital for Women and Children.—JAMES MANN WILLIAMSON, M.D. Edin., was educated at Shields and Edinburgh. He commenced his medical practice as resident physician to the Royal National Hospital for Consumption at Ventnor, and became in succession honorary surgeon and eventually physician to that institution. Ever since his student days he had suffered from cardiac troubles owing to rheumatic fever, and morbus cordis was the final cause of his death.—JOHN PALMER WAY, M.R.C.S. Eng., began his professional life as an apprentice to Mr. PIERCY of Portsmouth. He entered at St. Thomas's Hospital, and became M.R.C.S. in 1863. He served in the Royal Navy as assistant surgeon for three years and then settled in Portsmouth, where for some years he held the appointment of surgeon to the Royal Portsmouth Hospital.—ARCHIBALD CAMPBELL CLARK, M.D. Edin., who died on Nov. 28th, received his medical education at the University of Edinburgh. He took a special interest in psychological medicine, and was for some time at Mornington Asylum under Dr. T. S. CLOUSTON. He was next appointed medical superintendent of the Glasgow District Asylum at Bothwell, and finally he was elected superintendent of the new asylum for the county of Lanark which was to be built at Hartwood. This building was erected and equipped under his personal supervision. Dr. CLARK wrote a good deal upon the subject of insanity, his chief work being "A Clinical Manual of Mental Diseases," published in 1897.—By the death of Sir WILLIAM MAC CORMAC, Bart., K.C.B., K.C.V.O., F.R.C.S. Eng. and Irel., &c., who passed away quite suddenly at Bath upon Dec. 4th, the profession of medicine loses one of its foremost members. Sir WILLIAM MAC CORMAC's career has been so recently set forth in our columns that we need not recapitulate it here. He held the post of President of the Royal College of Surgeons of England for the unprecedented period of five years in succession.

#### *State and Municipal Officials.*

Of medical men who served the State in other capacities than a purely professional one we may mention CHARLES KEARNS DEANE TANNER, M.D. R.U.I., M.P. Dr. Tanner, who was born in 1850, was educated at Winchester School, Paris, Queen's College, Cork, and the Universities of Leipzig and Berlin. He was for some time physician to several of the Cork hospitals, but practically retired from practice upon taking up politics. His behaviour in the House of Commons was much to be regretted, for in private life he was a most

kindly companion and was popular among his friends. He sat first as a Nationalist and afterwards as an Anti-Parnellite for the Mid-division of county Cork.—JAMES AITKEN MYRTLE, M.D. Edin., was a well-known practitioner of Harrogate. He was educated at Winchester School and Edinburgh University, where he graduated M.B. in 1882. He settled in Harrogate and took a great interest in local politics, being on the town council for five years, while at the time of his death he was serving his second year of office as mayor.—Sir JAMES WILSON AGNEW, M.D. Glasg., was a notable practitioner of Hobart. From 1877 to 1881 he was a member of the Legislative Council of Tasmania, while from 1886 to 1887 he was Premier and Chief Secretary.—JOHN EDWIN SCOWCROFT, M.D. St. And., J.P., studied medicine at the Manchester and Liverpool schools of medicine and commenced practice in Bolton. He had always taken a deep interest in municipal matters and was Mayor of Bolton at the time of his death and a magistrate for the county borough.—JOHN SAMUEL SLATER, M.R.C.S. Eng., J.P., was educated at St. Thomas's Hospital. He commenced practice in Evesham in 1872, was elected a member of the town council in 1879, and in November, 1899, he was elected as mayor.—HENRY WILLIAM LIVETT, M.R.C.S. Eng., J.P., who died at the age of 87 years, was educated at St. Bartholomew's Hospital and at Paris. He was a prominent practitioner and citizen of Wells, in which town he twice filled the office of mayor.

#### *Distinguished Foreign Medical Men.*

Among eminent medical men belonging to other nationalities than our own we must mention the name of the greatly loved and esteemed Professor POTAIN. He died quite suddenly, at the age of 75 years, on Jan. 5th, and scarcely six months after he had delivered his last lecture at the Charity Hospital in Paris. His death is an irreparable loss to the Paris Faculty of Medicine, and few of our profession have been held in greater honour or been more loved.—Professor W. H. HEINEKE, who died in June, was a prominent German surgeon. He had held the chair of Clinical Surgery at the University of Erlangen for 33 years.—Germany also sustained a bitter loss by the death of Professor MAX VON PETTENKOFER, which occurred in Munich on Feb. 10th. His hygienic work is known to all the world.—Hungarian medicine has to mourn the death of Professor JOSEPH FODOR, M.D., of Budapest. He was born in 1843 and was a follower of VON PETTENKOFER, whose ideas upon sanitation he introduced into Hungary.—Italy is the poorer by the death of Professor BIZZOZERO, Professor of General Pathology in the University of Turin. He was a pupil of VIRCHOW, who used to call him, "My best pupil." He died on March 19th owing to the effects of an injury to his leg and a subsequently necessary amputation.

#### *Civilians.*

THOMAS TAYLOR, M.R.C.S. Eng., who died on Dec. 23rd, 1900, was born in 1819, and was one of the few practitioners left who began their professional careers under the old apprenticeship system. When 15 years of age he was apprenticed to Mr. HESTER of Abingdon and afterwards he entered at St. Bartholomew's Hospital. He qualified in 1842 and soon after settled down in practice at Bocking. He was local secretary of the Royal Medical Benevolent College, and apart from his profession took a deep interest in gardening.—CHARLES ROBERTS, M.R.C.S. Eng., who died very suddenly in Victoria Station, London, on Jan. 7th, was educated at St. George's Hospital, and was for many years a prominent practitioner in Uxbridge.—JAMES EDWARD PRICHARD, M.B. Oxon., M.R.C.S. Eng., was a son of the late AUGUSTIN PRICHARD of Clifton. JAMES PRICHARD was educated at Oxford and at University College Hospital, London. He practised in Bristol and at the time of his death was surgeon

to H.M. prison at Horfield.—BARON ALFRED RUGG, L.R.C.P. Lond., M.R.C.S. Eng., was educated at University College Hospital. In 1875 he settled down at Wood Green and was surgeon to the Wood Green Cottage Hospital.—JAMES NICOL, M.D. Glasg., J.P., was born in 1815 and had practised at Llandudno since 1858. Of this place he was medical officer of health for some 20 years and made a special study of the climate and meteorology of the district.—JAMES HOOPER, M.R.C.S. Eng., who died in his ninety-sixth year, was educated at Eton College, where he was a contemporary of W. E. GLADSTONE. He was present at the funeral of GEORGE III. and studied medicine at University College Hospital. He practised at Ford and later at Marshfield, near Bath, at which place he continued to work until he was 90 years of age.—The Rev. RICHARD PRIOR WINTLE, M.R.C.S., was a son of Dr. F. T. WINTLE of Headington. He was educated at St. George's Hospital, but only practised the medical profession for a few years, being admitted to Holy Orders in 1880. He died in his sixty-first year.—GEORGE HANBY DE'ATH, L.R.C.P. Lond., M.R.C.S. Eng., was educated at Westminster School and at Guy's Hospital. He qualified in 1884 and on the sudden death of his father in 1886 succeeded to his practice in Buckingham. He was coroner for the Winslow division of Bucks and medical officer of health of the borough of Buckingham. He was a good public speaker and an admirable amateur actor.—JOHN CONNELL, M.D., F.R.C.P. Edin., was for many years a prominent and popular practitioner on Tweedside. He commenced practice at Melrose, but moved after a few years to Peebles. He was a fluent speaker and held many appointments, such as surgeon to the county gaol, medical referee under the Workmen's Compensation Act, and local medical officer to the Board of Health. He was a good scholar and took a special interest in education. Among others of those who have passed away we must mention the names of IVOR AJAX LEWIS, M.R.C.S. Eng., J.P., of Porth; JOHN ARCHIBALD LORIMER, M.R.C.S. Eng., of Farnham, who met his death through a carriage accident; CHARLES HITCHMAN BRADDON, M.D. St. And., of Manchester; JOHN DAVID WILLIAMS, M.D., C.M. Edin., of Cardiff, who died from typhoid fever at the early age of 36 years; HENRY LLEWELLYN WILLIAMS, M.D. Edin., a well-known practitioner in Kensington; EDMUND DE LA CHEROIS, M.D. Dub., who, like his fellow practitioner JOHN LORIMER, died from the result of a carriage accident; FRANCIS WILLIAM WARRINGTON, M.D. St. And., J.P., of Congleton; HERBERT RICHARD BRACEY, M.R.C.S. Eng., of Birmingham; THOMAS LIVINGSTONE, M.D. Glasg., J.P., who practised at Stanhope, co. Durham, and was chairman of the school board; CHARLES DAGNALL CLARK, M.B. Lond., of Sydney, N.S.W.; EUGÈNE GODDARD, M.D. Durh., who died at the age of 60 years from acute peritonitis and who was well known as a practitioner in the north of London; JOHN HALLILAY, M.R.C.S. Eng., who practised in Leeds for nearly 50 years; ALFRED HUTCHISON SMEE, M.R.C.S. Eng., chief medical officer of the Gresham Life Assurance Society; ROBERT BARBOUR MCKELVIE, M.D. Glasg., of Oban, who for 26 years lived the laborious life of a medical practitioner in the West Highlands, and was the donor of the McKelvie Isolation Hospital to Oban; DAVID RITCHIE PEARSON, M.D. Edin., M.R.C.S. Eng., served for two years in India with the Rifle Brigade, settled in Kensington in 1863, and was one of the founders of the Kensington Dispensary; JENKIN LLOYD, M.B., C.M. Glasg., who died on Nov. 20th after a few hours' illness, practised at Bethesda, Carnarvonshire, and was a good Welsh scholar and an excellent bard.

The war against sickness and death has many points comparable to that of the war now being waged in South Africa against the King's enemies. Of the many pathetic incidents which have occurred there few can compare with that at

Brakenlaagte. Colonel BENSON lay dying with WOOLLS-SAMPSON, his brother-in-arms, bending over him. "Good-bye, old boy," said BENSON, "no more night marching now; it's all day." So may the weary practitioner who has fought his last fight say. "No more night work now; it's all day."

## Annotations.

"Ne quid nims."

### THE PRINCE OF WALES'S HOSPITAL FUND FOR LONDON.

At the distribution meeting of the Council of this Fund which was held on Dec. 21st, at York House, St. James's, S.W., when the Prince of Wales occupied the chair, Mr. J. W. Craggs, in the absence of Lord Rothschild, presented the financial statement which showed that the total receipts for 1901 up to Dec. 16th were about £53,000. The expenditure was £1530, showing a net balance of something like £51,470. The balance from last year being £174,225 3s. 7d., the grand total for the year 1901 is therefore more than £225,000. These figures are exclusive of the sums received for the coronation gift. The League of Mercy has this year contributed £7000, an increase of £1000 over last year. The sum recommended for division among hospitals is £50,000, being £1000 more than the previous year. £1000 will also be distributed among convalescent homes.

### SMALL-POX "CONTACTS" IN ST. PANCRAS.

At a meeting of the St. Pancras Borough Council held on Dec. 18th the Public Health Committee presented a report from Dr. J. F. J. Sykes, the medical officer of health. The report dealt with the outbreak of small-pox. Since Oct. 6th all cases of chicken-pox have had to be compulsorily notified. During a period of nine weeks 115 cases were notified as chicken-pox and of these 115 cases two were subsequently found to be cases of small-pox. The report considered the cases of "contacts" to be a matter most difficult to deal with. "Contacts" spread the disease both by their persons and clothing. They were dangerous if not rendered immune, but even in their case the liberty of the subject was not lightly to be disregarded. The methods open to adoption were four: (1) liberty; (2) exclusion; (3) seclusion; and (4) quarantine. Of these, liberty of a person who had been in contact with small-pox could only be allowed with safety after the person had been carefully washed, including his hair and nails, had had all his personal clothing removed and steamed in a disinfecting chamber, had been revaccinated, and had undertaken to report his condition daily for a fortnight. Baths and disinfection apparatus available for such cases existed, having been provided by the Marylebone Borough Council under the Cleansing of Persons Act, 1897. No compulsion could be exercised over a "contact." Exclusion simply from offices or other business premises fell hardly on small wage-earners, and as "contacts" might associate with other persons elsewhere the public was in no way benefited. Seclusion at home varied in degree according to the amount of separation available for persons and families. The whole house might have to be secluded even though many families, only one of which was infected, occupied it. Quarantine implied a quarantine station in which "contacts" might be isolated. The report did not make any definite recommendation as to which of these four methods should be employed, but it evidently implied that the two last-mentioned were the most valuable, although "liberty" appeared to be safe if the "contact" would submit to the regulations. At present no compulsion could be exercised over

"contacts," but on Nov. 27th the borough council resolved that a representation should be made to the President of the Local Government Board asking him to introduce into Parliament with all expedition a Bill authorising the sanitary authorities to exercise compulsion over the persons and clothing of infected vagrants; they would then be treated either by seclusion or by quarantine. The report, we are glad to say, was adopted. The question of compulsion is an exceedingly difficult one with which to deal. The Englishman is quite accustomed to compulsion which only deals with his pocket. He is grumblingly ready to pay compulsory rates even for objects of which he does not approve—as, for instance, the school board rate in the case of some, or the war taxes in that of others. But any compulsory regulation which affects his person would meet with grave disapproval. Compulsion, however, is an excellent thing to have ready and if persuasion will not do, although in the vast majority of cases we think it will, we hope that Parliament will grant the necessary powers for other steps to be taken.

### A CASE OF ABNORMAL ERUPTION OF A MANDIBULAR CANINE.

In the current issue of the *Journal of the British Dental Association* Mr. Dencer Whittles records a case of abnormal eruption of a mandibular canine. The patient, a girl, at the age of six years suffered from an acute suppurative periodontitis in connexion with the right mandibular deciduous incisors and canine. A sinus resulted which opened under the chin. Six months subsequently a sequestrum was removed through the sinus, and the wound healed, leaving a depressed scar. At the age of 10 years the right mandibular canine erupted through the scar and was eventually removed. The root of the tooth was considerably distorted, owing probably to some displacement of the tooth sac at the time of the primary trouble. A similar case to the above was recorded by Mr. C. Truman in the St. Thomas's Hospital Reports, 1893. In this patient a canine and a premolar made their way through the track of the sinus and appeared under the chin.

### THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Mauritius received at the Colonial Office on Dec. 20th states that for the week ending Dec. 19th there were 46 cases of bubonic plague, of which 21 were fatal. As regards Egypt, during the week ending Dec. 15th only one case of plague has been reported throughout all Egypt. It occurred at Zeftah in the person of a native who had been isolated on Dec. 7th.

At the Central Criminal Court on Dec. 20th Frank and Edith Jackson were convicted under the Criminal Law Amendment Act and sentenced—the male prisoner to 15 years' penal servitude and the female to seven years'. The forensic, psychological, and moral aspects of this case being remarkable it may be our unpleasant duty to return to the subject.

THE death is announced of Sir J. Henry Gilbert at Harpenden, Herts, at the age of 84 years. The veteran agricultural chemist has thus outlived his great partner in research, Sir John Bennet Lawes—whose death was announced in THE LANCET of Sept. 8th, 1900—by 15 months.

THE death is announced of Mr. H. G. Madan, Senior Fellow of Queen's College, Oxford. He was for some time chemistry master at Eton College, and was a most admirable teacher.

GIFT TO AYR COUNTY HOSPITAL.—The sum of £140, the proceeds of the Ayr Charity Cup football competition of last season, has been paid to the Ayr County Hospital

## Looking Back.

FROM

THE LANCET, SUNDAY, DEC. 28, 1823.

### TABLE TALK.

*Musical Phenomenon.*—Paris at this moment possesses a real phenomenon, in a young Hungarian, aged eleven years, named Leist. This child already displays talents of the first order as a pianist; but the execution of young Leist is not only distinguished for rapidity of fingering, which is what is admired in a number of performers; he unites to a perfection of lightness and firmness of hand, an expression which has been wanting in other performers, whose reputation is, nevertheless, very high. This, however, is what is least astonishing in the talents of this extraordinary child. He composes in the style of the greatest masters, and he improves on lessons given him with a facility so much the more marvellous as the force and grace of ideas never fail him. Since Mozart, who astonished several Courts of Europe at the age of eight years, the musical world has certainly witnessed nothing so surprising as young Leist. We must not forget to notice a characteristic feature, which completes his fame as a real prodigy, which is, that having only recently begun to learn the French language, he already expresses himself in it with a distinctness and sometimes with an elegance which would do credit to many youths of 16 or 18 years of age.—*Paris Paper.*<sup>1</sup>

### TO CORRESPONDENTS.

We have received several letters from Students belonging to the class of Mr. Charles Bell, complaining of the noisy and childish behaviour of some of the pupils during lecture; so great has been the annoyance, that Mr. Bell, twice in the last week, was obliged to address the gentlemen on the subject. If this interruption should be repeated, Mr. Bell, in justice to his *intelligent* hearers, is called upon to take the most decisive measures to abate what has now become an intolerable nuisance. The Student who can be inattentive to a lecture delivered by Mr. Charles Bell, can have but little regard for either his professional character, or intellectual improvement.

## THE PLAGUE IN INDIA.

BY ALEX. GRAHAM-SIMPSON.

### III.—PLAGUE DUTY AND WHAT IT MEANS.<sup>2</sup>

"PLAGUE duty" is a very wide and a very vague term. Beyond a hazy notion that the officers, medical, military, and civil, who are engaged in it have in some way to grapple with the scourge which has afflicted India for four years few people know what it means. And they would be little likely to find out unless they cared to go some day with a *plague walla* on his rounds. Take, for example, the work of the district officer, the *burra sahib* of a ward. He has to advise all below him and must report cases of insanitary buildings and drains to the district health officer. His duties, generally speaking, consist in making himself thoroughly acquainted with the area under his control and seeing that his establishment is sufficient and is duly distributed. He must organise local committees, see

to the distribution of work among members so that the whole of his district is kept under regular observation, and arrange for periodical committee meetings to hear grievances and discuss difficulties. He must make notes of the work done by each committee member and watch that no committee is neglecting its work. Immediate information has to be obtained by him through his organisation of all plague cases. He must make, or cause to be made, a register of every house in his ward. In this book every death is registered. If from plague the entry is made in red ink and in black ink when due to other causes. This is most important and special attention has to be paid to it. The cause of death as shown in the cemetery returns is often unreliable, so when a particular house or street is registered with an unusual number of deaths close attention is directed to the case and in nine cases out of ten it is shown that a considerable amount of the extra mortality is due to plague. Information for this sombre record has therefore to be gathered not only from the cemetery returns but from local committees and from information obtained from the district and health department staffs. Then, too, the district officer has to watch the mortality among rats. Directly an increase of the vermin occurs in any quarter he must see that every effort is made to destroy them.

#### *Work of Disinfection.*

Any place in which dead rats are discovered has to be disinfected at once. Nor does that end the list of tasks in what is known as "plague duty." He who would be worthy of his pay must see that patients with their relatives and dependents are removed from infected dwellings. Infected houses have to be disinfected. When a death is known to be due to plague there is no hesitation in disinfecting; but when the cause is doubtful care has to be taken that whatever error there be is on the side of safety. The *plague walla* has to see that disinfectants are properly used in such cases and that no locality is left uncared for in which the germ, lying dormant, may spring up afresh when conditions prove more favourable. The camps in his ward must be supervised and watched lest they become insanitary. He has to advise on questions of caste, to see that proper passes are given to people going up-country, to watch that all returns are punctually made, and forward to headquarters a weekly report of progress.

#### *At the Central District Office.*

All this he is expected to do. Now as to the manner in which he does it. A drive more or less long in his own vehicle or a *tacca gharry* some time before seven o'clock in the morning brings him to his central office, probably a *chuppar* (mat) shed to which the reports of the volunteers assisting him have been sent, and where a clerk has taken the record of all the cases of death from plague, or from what is suspected to be plague, in the district. These particulars may also have been furnished by the police or by the cemetery authorities. When received they are divided into sub-districts, and to each of the volunteers who have been put in charge of these subdivisions is given by the clerk a slip with addresses to which visits must be paid. There may be only three or four houses on a list, but rounds are long, as a rule, and four may be a hard morning's work, especially for the volunteer who has his private business to attend to afterwards.

#### *A Morning Round.—The Start.*

Let us accompany the plague officer on the round which he has selected. A drive from the central office through narrow streets, shaving past lethargic bullocks drawing cumbrous overloaded wagons, nearly running down hens and pariah dogs, never to speak of the superabundant juvenile population that persists in wandering into the middle of the road, brings us at last to our destination. It is in a small street where the houses are low and dark and close together. The inhabitants turn out to see us and the *plague Walla* hails them cheerfully, for they must be kept in good humour. The house sought is closed and the people, probably before it has been reached, protest that all the occupants have gone away. There is such earnestness in their manner that suspicion is aroused in the breast of him who hears. He asks how the occupants departed, when they departed, and whether they took all their possessions with them. "Yes," he is informed; "the case was assuredly plague and the relatives thought it best to leave the premises. They have gone up country"—to "their own country," as it is broadly defined—"but they did not take all their things

<sup>1</sup> The above interesting extract undoubtedly has reference to Liszt, concerning whom there appears in "Blackie's Modern Cyclopædia," vol. v., a biographical note as follows:—

"*LISZT, ABRE FRANZ*, distinguished pianist and composer, was born in Hungary in 1811, and died in 1886. He made his first public appearance in his ninth year; studied in Vienna and Paris; produced an opera in 1825, and became director of the Court Theatre at Weimar in 1849. This gave him the opportunity to introduce the music of Wagner, Berlioz, Schuman, and the writers of what is known as 'the music of the future.' In 1861 he took up his residence in Rome, where he joined the priesthood. In 1870 he became director of the Conservatory of Music at Pest. His chief works are the *Faust* and *Dante* symphonies and the oratorios *St. Elizabeth* and *Christus*."

<sup>2</sup> Nos. I. and II. were published in THE LANCET of Dec. 14th (p. 1692) and Dec. 21st (p. 1753), 1901.

with them." The officer gently, but firmly, says that he must get into the house, and that, after he has been in, he must close it so that no one else shall enter.

#### *Argument and its Effect.*

He explains for the thousandth time the why and the wherefore of it all and when the people look sulky at his *zoolum* (tyranny) he asks if they think that he comes down there for the pleasure of annoying them—if they think there is any joy in ferreting round their evil-smelling district. This has its effect. The faces of the crowd—and it is marvellous how large a crowd can appear from half a dozen houses on such an occasion—brighten wonderfully. He has appealed to a degree of their reason that can be reached. They admit that, after all, there cannot be pleasure in it even for him, and, having admitted so much, they wonder what other reason if not for their good he can have in coming among them. Presently, just before the rickety lock is forced, the owner comes forward from the crowd. He does not want his lock spoiled and offers the aid of a key. The crowd, who had so far assisted him, now chaff him because of the failure of the *ruse* and he himself enters into their fun. He is not afraid of plague, he says, "he cannot get it." The man walks with a stick. On his legs and arms are what appear to be deep-seated tuberculous eruptions. His wife helps him as he walks. After some conversation with the neighbours—"Full of syphilis," says the officer, "and he's learnt, somehow, that he is immune." A couple of men by this time have entered the house, and, following their chief, they sprinkle carbolic liberally. Some rags—the owner calls them *kupra*, or clothing—are found in the place. These are taken out and burned, kerosine being used to aid in their destruction. Compensation to the extent of several annas is given to the syphilitic one, and, being now in a good humour, with a little persuasion he and his people go off to a segregation camp.

#### *Down among the Fisher-folk.*

On the address slip the next place to be visited is possibly down among the fisher-folk, so thither we go. To the right there, where the sea comes rippling up to the *charls*, they live. We might know that they were fisher-folk by the smell, if there were no nets and broken oars and bits of rotten rope to tell us of it. They wear a cap like a fez without the tassel on top. It comes down well on their shaven heads. Above the brow a piece has been taken out. Someone says that they are the descendants of the pirates of former days. Very likely it is true. They still retain a certain self-possession and bold carelessness of manner that may be the gift of their bold ancestors or may be the natural outcome of their occupation in the free air away from the hovels where on shore they dwell. They have got used to the *plague walla* by now and they will talk and jest with him, though at one time they were troublesome. Look at them—a thick crush for so small an area; but they are nevertheless content with their lot.

#### *A Vain Search.*

We wander round, asking first one person and then another where the specified individual is to be found. The sun begins to be very hot, and in these narrow, ill-smelling lanes it is reflected again and again from the white walls of the houses. The head man—said to be very rich, though there is no outward and visible sign of his wealth beyond the amplitude of his presence—is called upon and he declares that there is no such person in the locality. As for numbers he knows nothing about them. So twenty minutes or half an hour is wasted and we decide to proceed to the next place of call. But that is worse. A cluster of huts stands on the slope of a creek from which the water has retreated and the muddy basin is noisome in the extreme. Several of the little, low buildings have been vacated. If we had not seen it with our own eyes we would scarcely have believed it possible that any human being could have lived in them—dark, filthy dens as they are, with scarcely a rat-hole for light and ventilation and the rooms not eight feet square.

#### *The Benefit of Plague.*

Plague has not been an unmitigated evil in India if it has caused such places as this to be cleared. We proceed through passages which must be traversed sideways. Our heads hit against hard things and are only saved by the

strength of an Elwood *topee*. Our faces graze some filthy rag that seems as if the germs of all disease had harboured upon it. Through a door we crouch to enter. Two figures can dimly be seen, one prostrate, the other bending over it. When our eyes grow accustomed to the light we see that the prone figure is that of a girl in the last stage of disease. We retire and the medical man who has been following goes in to the sufferer. When he emerges he declares the disease to be plague and tells us, what we already suspected, that ere many hours the patient will be dead. Plague hospitals can do nothing for her now—the case has been concealed too long. Afterwards the people in the place will be given the alternative of segregation or inoculation. In all probability they will choose the latter, for to them this dungeon is, after all, their home. Their forefathers never had light and air fit to breathe—why should they? What was good enough for those gone before is surely good enough for them. No amount of argument will change their view.

#### *Real and Ideal.*

Once more in the street and we press on to another house some five minutes' drive from the scene of the last visit. Like most places in the East it would look exceedingly well in a picture. To the observer in a poetical mood it might even suggest the Arabian Nights. But on the spot it is impossible to be poetical. Close contact with the lower strata of native life will not permit any flights of fancy. So we pass gingerly over the open gutter in a damp yard to which a diminutive door admits us. In reply to questions carefully asked the people state that there is a sick man upstairs. Upstairs we go with handkerchiefs close pressed to our noses. Sure enough, in a room—a closet—lies a man attended by his wife. The light is not so scarce that we cannot see he is ill—very ill. We stand over him. The plague officer stoops low to make inspection. "Looks queer," he remarks; "The doctor will be here in a minute. Let us wait." While waiting he talks kindly to the woman who watches with the keenest suspicion and apprehension our every movement. By-and-by the doctor puts in an appearance. Going down on his knees he examines the patient. "This is not plague," he remarks on rising, "it is small-pox."

Before the morning round is completed we have discovered typhoid fever and cholera and probably breathed more genuine disease-laden air than the average Londoner will take into his lungs in the course of his existence. Health reports and plague blue-books look so simple and unattractive—it is wonderful how much lies behind them.

## Pharmacological Notes.

### THE ALKALOIDS OF IPECACUANHA.

Paul and Cownley<sup>1</sup> have summarised the results of their chemical investigation of ipecacuanha. They have examined the official or Brazilian root, also the Carthagena or New Granada root, and in each case they have isolated three alkaloids—viz., emetine, cephaeline, and psychotrine. The relative proportion of these alkaloids found in the different roots is of importance on account of their physiological effects. Both emetine and cephaeline have a powerful emetic action, but it has been shown by Dr. R. B. Wild that the emetic dose of emetine is double that of cephaeline; in other words, cephaeline is the stronger emetic. It is given in doses of from five to 10 milligrammes. Cephaeline, however, nauseates twice as much as does emetine. Emetine is a better expectorant than cephaeline. In acute fever and catarrh, where vomiting is not required, emetine in small doses is likely to prove of considerable value; it may be given as an emetic in doses of from 10 to 20 milligrammes when a more depressing action is required. The total quantity of alkaloid in the two varieties of drug is about 2 per cent., or rather more in the Carthagena root, but it is of the utmost importance to note that the proportions of emetine and cephaeline are so different that the drugs cannot be considered as interchangeable. The figures given are in

<sup>1</sup> American Journal of Pharmacy, vol. lxxiii., p. 57 et seq.

percentages and so represent the proportions of each alkaloid present in 100 parts of the total alkaloid.

Alkaloid.	Brazilian (official) root.	Carthagena root.
Emetine ... ..	72.14	40.5
Cephaeline... ..	25.87	56.8
Psychotrine ... ..	1.99	2.7

The stem of the Brazilian ipecacuanha contains approximately the same proportions as the root; the percentages are 65.6, 32.8, and 1.6 respectively of the alkaloids in the order named. There is a preparation on the market known as "de-emetinised" ipecacuanha. Paul and Cownley have found it to contain as much as 0.5 per cent. of total alkaloids. They have also found that ipecacuanha contains a crystalline saponin-like constituent of the nature of a glucoside, which in doses of 0.25 gramme has no emetic action.

#### APPLICATIONS FOR SURGEONS' HANDS.

The following hints for the treatment of surgeons' hands, taken from an Austrian source,<sup>2</sup> may prove useful. To protect the hands against the action of corrosive disinfectants—e.g., carbolic acid and corrosive sublimate—washing with water is not enough. After using carbolic lotion it is best to wash with alcohol, and after sublimate with solution of common salt, in each case soaping the hands thoroughly afterwards. It is a good plan to mix a teaspoonful of borax with the lather and after the hands are dry to rub in a little hydrous wool-fat. Unpleasant smells, as of iodoform, creasote, guaiacol, and similar odorous drugs, are removed by washing with linseed meal, or mustard-meal, and water. Other substances also are recommended for this purpose—e.g., coffee, turpentine, tar-water, and ethereal oils. In the case of iodoform the smell can be easily removed by washing with powdered ergot of rye. Chapped hands are avoided by rubbing with a mixture of glycerin and rose-water, or glycerin, boric acid, and soft petroleum. The following application is suggested for healing cuts: menthol, 0.75 part; salol, 1.5 parts; olive oil, 15 parts; hydrous wool-fat, 45 parts.

## SICK AND OBSTETRIC NURSES BILL.

THE following is the text of Dr. A. McCook Weir's Sick and Obstetric Nurses Bill:—

Whereas it is expedient to abolish the practice of midwifery by ignorant and incompetent persons calling themselves midwives, and to protect poor parturient women and their infants from such persons, and to make better provision for the nursing of the sick and parturient poor and their children in England and Wales:—

*Be it enacted, &c.,*

1. This Bill shall be known and cited as the "Sick and Obstetric Nurses Bill, 1898."

2. On and after the First day of January, Eighteen Hundred and Ninety, this Act may be adopted by any duly constituted local authority, such as boards of guardians, county, district, and parish councils, or by voluntary nursing associations acting independently of, or in conjunction with, any of the aforesaid authorities who shall have power individually and collectively to enforce the provisions of this Act in their respective districts.

3. On and after the date of the passing of this Act and its adoption by any of the authorities herein named, it shall be unlawful for any person (male or female) to assume the title of midwife, or to practise as such, or to act as a sick or obstetric nurse, for gain or otherwise, without the supervision and control of a fully-qualified and registered medical practitioner. Any person infringing this provision and neglecting or refusing to send for medical or surgical aid at or immediately after a confinement shall be liable to a fine of £10 or imprisonment for a month in default.

4. On the adoption of this Act by any of the authorities herein specified it shall be incumbent upon them to employ a sufficient number of sick and obstetric nurses to meet the requirements of the poor and working-class population of their respective districts, and no woman already in practice as a midwife, sick, or monthly nurse shall be eligible for employment by any authority herein named unless she can produce a certificate of competence from a duly recognised teaching authority that she is proficient in the art of sick and obstetric nursing. And any attempt to evade this provision shall be deemed an offence against this Act, and the person so offending shall be liable to a fine of £5, or to a month's imprisonment in default, in a court of summary jurisdiction.

5. Any of the authorities named in Clause 2 of this Act, and who adopt the same, shall be held responsible for its due administration to the Lords of the Council or the Local Government Board, provided the

latter have already jurisdiction and authority in that behalf, and *tate* *ally* every adopting authority shall (a) keep a register of such nurses easily accessible at all times to the public, and (b) shall provide for the payment of their nurses either by means of the public rates or by voluntary subscriptions and donations, and by the contributions of the beneficiaries under this Act, or in part by these and by grants in aid from the funds administered by these respective authorities; and (c) in order to make due provision for the sick and parturient poor and their children it shall be incumbent upon boards of guardians in default of other authority to adopt and carry out the provisions of this Act in their respective unions and to vote the necessary funds, or to make grants in aid to voluntary nursing associations to meet the expenses of the provisions of this Act. The medical fees under this section to be the same as under Section 8 of this Act.

6. It shall be the duty of any of the adopting authorities to keep a complete list (to be revised from time to time) of the medical men practising midwifery in their respective districts, and in the case of Voluntary Nursing Associations adopting this Act it shall be incumbent upon them not only to keep a complete list of the medical men but to invite them to join their associations and their executive committees. And every woman shall have the right under this Act to choose her own medical man, whether she contribute to the funds of the association or not, and any sick or obstetric nurse trying to influence any patient under her charge in favour of any particular medical man shall be deemed to be guilty of an offence under this Act and shall be reprimanded by the administrative authority for a first offence and dismissed their service for any subsequent repetition of the offence. And for any offence by any member of the medical staff of the administrative authority, or of a voluntary nursing association, the medical officer shall be suspended until due inquiry shall be made into the case by the General Medical Council, provided always that such offence be of the nature of neglect or maltreatment of any given patient, or of making a false or unjustifiable charge against any sick or obstetric nurse or member of the medical staff. And it shall be a further duty of the adopting authority or voluntary association to take steps by advertisement or otherwise to make known the benefits of the association to the poor of the district, and, if necessary, to employ and pay a secretary to collect patients' subscriptions, and to canvass for contributions and donations to the funds of the association.

7. It shall be an offence under this Act for any woman, whether acting as sick or obstetric nurse, and registered as such or otherwise, to advise or prescribe or to administer a noxious drug<sup>1</sup> or to use any surgical instrument beyond those necessary to her calling as a sick or obstetric nurse, on any patient (whether man, woman, or child) under her care, or to sign any death certificate or certificate of still birth, or of illness for any club or benefit society, under any pretence whatever, and if convicted of any breach of this provision shall be adjudged guilty of a misdemeanour and shall be liable to imprisonment for a period of three months without the option of a fine and to dismissal by the administrative authority under which she is acting. Proceedings may be taken under this section by the police, the registrar of births and deaths, and the Registrar-General, as well as by the administrative authority under this Act before any court of petty sessions in the district where the offence was committed.

8. Where it is incumbent upon boards of guardians to adopt and carry out the provisions of this Act, their relieving officers must make themselves acquainted with the poor women in their respective districts who shall require the assistance of the medical officer and the obstetric nurse, and shall submit a list of all such women, together with a statement of their own and their husband's earnings, to their respective boards, who shall consider the same and forthwith grant orders on their medical officers, or on any other duly qualified and registered medical man within their jurisdiction, always having due regard to the patient's convenience; and in the event of great poverty, short of actual destitution, the Board shall authorise their relieving officer to grant confinement orders on both doctor and nurse; and in the case of those whose income is precarious, or who are in temporary difficulties, to grant confinement orders "on loan" until such time as the parties can refund the same. And the issue and the acceptance of these orders shall be no bar to the exercise of their social and political rights and privileges by the recipients. All fees payable under this section by boards of guardians, or by the authorities named in Section 5 of this Act, shall be in accordance with the consolidated orders in reference to Poor-law midwifery practice, together with mileage beyond the distance of one mile from the residence of the medical man or their medical officer, as the case may be.

9. Sick nurses shall in all cases act independently of and in no case undertake the duties of obstetric nurses as laid down in the schedule hereto, but shall be otherwise subject to the same supervision and control as obstetric nurses.

*Schedule A. Clause 2.*—For the adoption of this Act it will suffice to give notice for three weeks in the columns of the local press and written notice to the central authority by the clerk or secretary to the authorities named in this clause.

*Schedule B. Clause 3.*—The prosecuting authority in this shall be the same as in Clause 7, and the court, the police-court, or petty sessional court of the district in which the offence was committed.

*Schedule C. Clause 4.*—All sick nurses under this Act must have at least six months' training in medical and surgical nursing in a recognised metropolitan or provincial general hospital, and must hold a certificate from the teaching staff setting forth that the person named therein is competent to undertake the nursing of medical and surgical cases according to modern methods, and that she has been examined both theoretically by written papers as well as practically at the bedside, not only in the subjects named, but also in cooking for and feeding the sick, according to instructions laid down in that behalf by her examiners. Nurses with three years' 18 months, and six months' training respectively shall be certified after examinations as *first, second, and third grade*, and the position and pay of each grade shall be according to the following scale:—

First grade nurses, salary £100 per annum, to wear full dark-blue costume, as worn by Jubilee nurses.	
Second " " " £80 " " to wear grey costume.	
Third " " " £60 " " to wear plain dress, with nurse's head-dress.	

<sup>2</sup> *Zeitschrift des Allgemeinen Oesterreichischen Apotheker-Vereines, Band liv., p. 1156.*

<sup>1</sup> Vide appendix.

Sick nurses must not accept fees, gratuities, or extra remuneration from any patient, or relation, or friend, or husband of the same. Their outfit to be determined and supplied by the administrative authority under this Act.

An obstetric nurse under this Act must have at least three months' training in a recognised metropolitan or provincial lying-in hospital, and be examined theoretically by written papers and practically at the bedside, and must show herself competent to act in cases of emergency, such as in sudden labour, alarming hæmorrhage, and threatened death of the mother or child until the doctor engaged to attend arrive, or, in the event of his absence, until the arrival of a properly qualified and registered substitute. In addition to a practical knowledge of modern antiseptic midwifery and the general management of lying-in women and newly-born infants she must have a practical acquaintance of domestic duties and be able to do plain cooking for her patient and, if necessary, for her husband and family, and she must be prepared to do the necessary washing for mother and child in cases of extreme poverty, and she must be provided with a change of linen and undergarments for both mother and child, whether they may be required or not, and in no case shall she accept fees, gratuities, or remuneration from the patient, or her husband, or any relative or friend. For salary of obstetric nurses see schedule to Clause 5. Obstetric nurses must be neatly and cleanly dressed, but need not necessarily wear costume, and their outfit must in all cases be supplied and determined by the administrative authority under this Act. And the travelling expenses of both sick and obstetric nurses beyond a mile from their residence (which must be central) are in all cases to be defrayed, and in accordance with a scale to be fixed, by the administrative authority. And in addition to the direct and immediate supervision by the members of the medical staff there must be a general supervision of the nurses by the secretaries of those authorities, who shall report neglect of duty and delinquencies to their governing authority.

*Schedule D. Clause 5. Sub-clauses b and c.*—Practical illustration of the income and expenditure of a voluntary nursing association employing a sick and obstetric nurse in a parish of 7000 inhabitants, with three resident doctors. Take average births at 180, and for comparative purposes divide these into three sixties, as follows:—

1st 60,	wages 30s. to 40s. per week,	to contribute 15s.
2nd 60,	" 20s. to 30s. "	" 10s.
3rd 60,	" 20s. and under "	" 5s.

An honorarium of 5s. to be added to each of the above contributions, making doctor's fees 20s., 15s., and 10s. respectively, or an average of 15s. each.

#### CASH ACCOUNT.

Dr.	£	Dr.	£
Income from woman's contributions ... ..	90	Doctor's fees ... ..	135
Subscriptions, donations, &c. ... ..	180	Sick nurse ... ..	60
		Obstetric nurse ... ..	60
		Incidentals ... ..	15
Total ... ..	£270	Total ... ..	£270

A "grant in aid" under this Act of £25 to the above credit account would enable a voluntary association adopting this Act to employ a "second grade" sick nurse, and of £50 a "first grade" sick nurse. In order to encourage the adoption of this Act by the authorities named therein, and especially to encourage and facilitate the establishment of voluntary nursing associations, "grants in aid" to be made conditional on the subscriptions and donations and the women's contributions attaining a fixed standard, which might be two-thirds at least of the required income, based on the birth-rate and financial capabilities of the parish or district. The medical fees scheduled herein are to be exclusive of mileage as provided for in clause 8.

*Schedule E to Clause 9.*—The rules regulating the conduct and duties of sick and obstetric nurses shall be drawn up by a committee of the adopting authority or voluntary association, and no rule shall be made in the absence of the members of the medical staff, and if no member of the medical staff be present, the committee must adjourn, and due notice be given to each member of committee, including the medical members, so that all or as many as possible may be present at the adjourned meeting. And the rules and regulations shall conform so far as possible to the local circumstances of the parish or district, and if any dispute arise in reference to the adoption of any proposed rule or regulation, and if any nurse or member of the medical staff feel aggrieved by the action of the managing committee, or by their rules and regulations, he or she may summon a general meeting of the subscribers by giving seven days' notice to the secretary, who must thereupon issue notices for the meeting to be held at the earliest possible date, and the decision of the meeting shall be final, always provided that in matters affecting the professional conduct of the medical staff, or any member of it, the appeal must be to the General Medical Council.

## ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

THE annual election meeting of the College was held on Dec. 6th, 1901, when the following office-bearers were elected for the ensuing year:—President: Dr. T. R. Fraser. Vice-President: Dr. J. Andrew. Council: the President, the Vice-President, Dr. John Wyllie, Sir John Batty Tuke, Dr. T. S. Clouston, Dr. G. A. Gibson, and Dr. D. Berry Hart.—An extraordinary meeting of the College was held on Dec. 17th, Dr. Fraser, the President, being in the chair: The secretary reported that the following office-bearers had been elected by the Council for the ensuing year:—Treasurer: Dr. Peter A. Young. Secretary: Dr. R. W. Philip. Librarian: Dr. George W. Balfour. Curator of research laboratory: Sir John Batty

Tuke. A report was submitted by Dr. Graham Brown to the effect that he had the honour of presenting in person to Professor Virchow on his eightieth birthday the address of the College and that Professor Virchow, in thanking the College, had paid a pleasing compliment to the College and its laboratory. The College unanimously re-appointed Dr. Andrew and Dr. Young to be its representatives on the Board of Management of the Royal Infirmary.

## THE SERVICES.

### ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Fleet Surgeon C. Pearson to the *Grafton*. Surgeons: E. G. E. O'Leary and J. Stoddart to the *Grafton*.

### ROYAL ARMY MEDICAL CORPS.

Major James McM. Bolster retires on retired pay. Dated Dec. 21st, 1901.

### ARMY MEDICAL RESERVE OF OFFICERS.

The undermentioned officers having resigned their commissions in the Volunteer Forces cease to belong to the Army Medical Reserve of Officers: Surgeon-Major S. H. Moore and Surgeon-Captain C. E. R. Bucknill.

### MILITIA MEDICAL STAFF CORPS.

Surgeon-Lieutenant J. Davies to be Surgeon-Captain.

### IMPERIAL YEOMANRY.

Sussex: Edward Stewart, late Surgeon Middlesex Imperial Yeomanry, to be Surgeon-Captain.

### VOLUNTEER CORPS.

*Artillery:* 2nd Kent: Surgeon-Lieutenant-Colonel R. Gooding resigns his commission, with permission to retain his rank and to wear the uniform of the corps on retirement. 2nd Sussex: Harry Edward Hewitt to be Surgeon-Lieutenant. *Electrical Engineers:* Cecil Huntington Leaf to be Surgeon-Lieutenant. *Rifle:* 4th Volunteer Battalion the King's (Liverpool Regiment): Brigade-Surgeon-Lieutenant-Colonel W. J. Fleetwood resigns his commission, with permission to retain his rank and to wear the uniform of the battalion on retirement, vacating at the same time his appointment as Senior Medical Officer to the Mersey Volunteer Infantry Brigade. 3rd (Dumfries) Volunteer Battalion the King's Own Scottish Borderers: Surgeon-Major W. D'O. Grange resigns his commission, with permission to retain his rank and to wear the uniform of the battalion on retirement. 1st (Oxford University) Volunteer Battalion the Oxfordshire Light Infantry: Surgeon-Lieutenant W. T. Brooks to be Surgeon-Captain. 2nd Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment): Herbert Shipton to be Surgeon-Lieutenant.

### VOLUNTEER MEDICAL STAFF CORPS.

The Manchester Companies: Walter Reginald Norman Smithard to be Surgeon-Lieutenant; Claude William Scott Saberton to be Surgeon-Lieutenant. The Woolwich Companies: Surgeon-Lieutenant M. Taylor is borne as Supernumerary whilst serving with the Royal Army Medical Corps in South Africa.

### SOUTH AFRICAN WAR NOTES.

Lieutenant-Colonel T. P. Woodhouse, R.A.M.C., and Civil Surgeons Cleary, Dickson, Ritchie, and Keenan are on passage home.

### THE VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

At the headquarters of the Artists Rifle Volunteers, Duke-street, Euston-road, on Dec. 11th, Colonel Sir Thomas Gallwey, K.C.M.G., C.B., R.A.M.C., principal medical officer of the Home District, inspected the present classes of the Volunteer Ambulance School of Instruction and distributed the prizes. Among the other officers present were Brigade-Surgeon-Lieutenant-Colonel P. B. Giles, V.D., senior medical officer of the school; Major Maclure, late of the London Scottish Volunteers, president of the school; and Major W. H. P. Lewis, and Lieutenant L. F. Forbes Winslow, R.A.M.C. examiners; Surgeon-Major R. R. Sleman, late C.I.V., and Surgeon-Lieutenant Hudson and Surgeon-Lieutenant R. Roche. Any efficient member of the Yeomanry or Volunteers may join the school and receive instruction. In the advanced class the best team

proved to be four members of the 1st Cadet Battalion of the King's Royal Rifles, while the best man was Private P. H. Freeman of the same battalion. In the new class a team of the 1st Cadet Battalion, King's Royal Rifles, also took first place, winning the Hamilton Challenge Bowl, a team of the 3rd Volunteer Battalion the Queen's being second. Private G. L. Paxton of the London Rifle Brigade and Private F. Couling, 21st Middlesex Rifle Volunteers, obtained prizes for individual good work. The victory of the cadets is all the more creditable to them as they have to meet in competition some of the best corps of the Home District, including the Honourable Artillery Company, the London Rifle Brigade, the London Scottish, the Artists, the 2nd Volunteer Battalion Royal Fusiliers, and the Queen's Westminster Volunteers. Colonel Gallwey, addressing the class after inspection, said that in the war now waging in South Africa perhaps no branch of the army wanted aid more than the medical branch did. By assisting the sick and wounded they were doing as much as any other soldiers in the field. He had taken part in the war and could speak in high terms of the service which the medical branch had rendered to the sick and wounded. At the conclusion of Colonel Gallwey's address a considerable number of the men stepped forward and volunteered for active service in South Africa with the Royal Army Medical Corps. Up to the present time Brigade-Surgeon Giles has sent over 100 non-commissioned officers and men for duty with the corps, a considerable portion of whom are still serving abroad. The next class for the training of regimental stretcher-bearers will be held at the London Scottish headquarters, James-street, and will commence early in February.

#### LIGHT RAILWAY AMBULANCES IN WEST AFRICA.

The Liverpool Chamber of Commerce has sent to the Secretary of State for the Colonies, Mr. Chamberlain, a design with drawings for a corridor train for the British West African railway services by Lieutenant-Colonel J. J. Lamprey, I.M.S. The carriage has accommodation for 30 persons, 12 lying down, 12 seated, and six attendants. It can be utilised at a junction or at a siding as a temporary field hospital as it will be complete in every equipment—drugs, instruments, and dressings, a kitchen, with a store-room and a medical-comfort box, water-tank, larder, and pantry. Lieutenant-Colonel Lamprey claims that his car will not only do for a corridor train, but will act as a general purpose saloon for railway service on the West Coast of Africa. Wire-wove seats and cots will add greatly to the comfort of invalids and travellers. At present the sick and wounded are placed on stretchers resting across the backs of the seats in open railway carriages—a practice which, apart from the agony of jolting and the discomfort to the patient, is primitive and not without danger to the health of the traveller. All who may have recently returned from visiting Lagos, the Gold Coast, and Sierra Leone are of opinion that light railway accommodation should be made as convenient and as comfortable for West African railway services as they are in India or other tropical countries, especially for invalids.

#### ST. JOHN AMBULANCE BRIGADE AND RECRUITING.

The Inspector-General of Recruiting has issued the following circular memorandum to general officers commanding districts:—"Many instances having recently been brought to notice in which men of the St. John Ambulance Brigade and others applying for enlistment in the Royal Army Medical Corps for service during the war in South Africa, under Army Orders 86 and 159 of 1901, have not found every facility afforded them by the recruiting authorities, the attention of officers commanding recruiting areas is drawn to the fact. Every step possible should be taken to facilitate the enlistment of such men, as the greatest difficulty is experienced in providing for the continual drafts of the Royal Army Medical Corps requisitioned for service in South Africa."

The Imperial Yeomanry Hospitals Committee has decided to support the scheme proposed by Major-General Eaton and approved by Lord Pirbright of utilising the Bisley Homes for children of soldiers who have died in the war in South Africa. The surplus Yeomanry Hospital Funds will be accordingly devoted to the maintenance of one of the homes, accommodating 16 children, for the orphans of Imperial Yeomanry men.

## Correspondence.

"Audi alteram partem."

### THE PERSONAL FACTOR IN TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—The profession owes you a debt of gratitude for reproducing, in THE LANCET of Nov. 9th. p. 1250, the address by Sir Dyce Duckworth on "The Personal Factor in Tuberculosis." In strong contrast to the special pleading with which the advance guard of the National Association for the Prevention of Consumption and Other Forms of Tuberculosis has made us familiar, we have here the calm, judicial summing up of the case in the interests of truth, the whole truth, and nothing but the truth.

Sirs, we are living in critical times. The present attitude of some of the accepted leaders of our profession compels the conclusion that the royal patronage of science is little less than a national misfortune, if not a world calamity. It may be that the heading up of so-called "popular" movements and the stump oratory by means of which the dissemination of their propaganda is brought about, can be justified to some conceptions of the ethical code, but nothing can justify the absurd pretensions that are being put forward as to the extraordinary, if not miraculous, cures which result from "treatment" in sanatoriums. The fact that the "cured" of certain belauded places are dying on all hands, and the knowledge that over the door of the sanatorium is written, "Abandon hope, all ye that enter here," to patients with physical signs, does not appear to damp the ardour of these enthusiasts. There has, however, been a considerable climb down recently. Instead of the conversion, within the space of three months, of people with "crushed-in chest walls" into "great broad-shouldered men" we are now informed that the chance of complete cure is almost confined to first-stage cases—a new definition of first-stage having been evolved from the exigencies of the situation. At the International Congress this stage was defined as "a man takes cold (*sic*) and has a cough, which is neglected"—sufficiently elastic, it will be granted, to ensure the success of any institution of the kind and to make visitors inquire "Where are your patients?" as well as to afford a reasonable explanation as to how it comes to pass that so many of the "cured" are engaged at the present time in beating the tom-tom of the sanatorium. Now I should like to ask three questions: 1. Is any scheme devisable by means of which the aspirations of the National Association can be attained? 2. Judged by their own theories of disease causation, does the aggregation of cases of consumption in sanatoriums recommend itself to ordinary common-sense? 3. Are these extraordinary efforts being directed in the true spirit of disease prevention?

Dealing with the first question, let me point out that for the 10 years 1881-90 the average number of deaths each year from consumption in England and Wales was 66,526; of these, 43,832 were those of persons between the ages of 15 and 65 years—the wage-earning period of life. Now let us take a glance at the length of time which is considered necessary for a so-called cure. Mr. Braine-Hartnell of the Cotswold Sanatorium says: "If a patient has no physical signs, no temperature, no cough or expectoration, and *if he keeps up this condition for two or three years*, then and then only can he be called cured." Again, "The man who can live in a sanatorium for 12 months and then spend the rest of his life as a country gentleman must necessarily stand a better chance," &c. Dr. Clifford Allbutt tells us that "to bring about obsolescence in phthisis, even of the first stage, we need, in my opinion, two winters and one summer at least, and in saying this I am astonished at my own moderation. In many cases three winters and two summers will be needed"; and he adds some words which invalidate all his arguments in favour of sanatorial treatment when he concludes: "But how many, even in the easier classes, can sacrifice this time without breaking up their careers and abandoning their ties of home?"

It becomes perfectly evident, then, that should the Government or the municipalities of this country ever make the effort to carry the sanatorium treatment to its legitimate conclusion the very earliest discovery that would be made

would be that the financial problem alone was absolutely insoluble.

Does the aggregation of cases of consumption recommend itself to ordinary common sense? We have been taught that consumption is an infective disease. If this theory of infectivity be not the invention of public-health enthusiasts brought out for the purpose of panic-striking the world into the acquiescence in compulsory notification and compulsory isolation—if it can be regarded as a sober, workable theory that may be expected to stand the strain of reasonable tests, can it be contended that the best way to treat phthisical patients is to secure their constant exposure to the very organism which forms the *causa vera* of their trouble? The aggregation of the infective sick is bad at all times and under all conditions. It has been shown that phthisical patients during the acts of coughing and speaking fill the air not only in front but laterally and behind with tubercle bacilli. Is it really contended that a line of treatment which insists on the exposure of one's patient to this bacillus-contaminated atmosphere, that compels association with others who are compassed about with what Professor Koch describes as the *circulus vitiosus*, that ensures the constant inhalation and ingestion of the very organism which forms the *causa causans* of their disease, has any rag of scientific sanction? Outside the walls of the sanatorium healthy people are taught that a barbarous ostracism of their kith and kin is only a justifiable measure of precaution, and are we to understand that the patient of the sanatorium who is in the "first stage" of the disease and who may have anything or nothing the matter with him and the man in whom "hereditary predisposition" has prepared the soil for the reception of the tubercle bacillus are in any less danger than healthy people outside?

In THE LANCET of Nov. 30th, p. 1515, Dr. Louis C. Parkes argues that the principle involved in the isolation and treatment of consumptives in sanatoriums is the same as that involved in the isolation and treatment of scarlet fever and diphtheria and as a measure to safeguard the public. What have been the fruits of aggregation in these diseases? Secondary infection and the creation of a mixed infections disease more deadly than either scarlet fever or diphtheria—namely, post-scarlatinal diphtheria. As to the protection of the public, if the creation of endemic fever can be so designated, the public is well protected indeed. Keeping in mind the length of detention in sanatoriums for consumptives nothing is more certain than this—that if secondary infection does not take place there is something desperately wrong with the infection theory, which is extremely probable. Public health enthusiasts have worked this theory for all it was worth and a little more, indulging the vain hope that this long route to disease prevention would be taken by the governments and municipalities of the civilised world. From London to York the distance, as the crow flies, is 200 miles or 24,000 miles—it all depends on the direction you take. The "scientists" of the present day prefer the longer route.

This brings us to a consideration of the third question: "Are these extraordinary efforts being directed in the true spirit of disease prevention?" The answer to this question may be sought in the experience of the past. In the days when science was the systematisation of knowledge and not a guessing competition under the patronage of emperors and kings a mighty work had been accomplished in these lands. The death-rate from consumption had been diminished by 50 per cent. How had these great results been achieved? They had been brought about, not by notification, isolation, inspection, and compulsion, but by works of sanitation carried out on common-sense lines. Herein are the ways and means of preventing disease, which are several times more advantageous to the community than curing it even if this could be accomplished.

What are the causes of consumption? The two chief causes are want of cubic space and defective drainage. Of course, this is rank heresy; but let it pass. What happens when so-called infected areas are drained and cubic space is increased? Let us see. Hueppe—who of all modern scientists is less severely bitten by the modern craze to make the individual the scapegoat to bear the sins of us all—says clearly that we must look to drainage and to works of sanitation generally for the accomplishment of the ends we have in view. Dr. Buchanan showed that great diminution in the deaths from phthisis followed the laying of main drains in the following towns, among others: Salisbury (49 per cent. of its previous rate),

Cheltenham (26 per cent.), and Bristol (12 per cent.). Dr. W. H. Symons, medical officer of health of the city of Bath, declares that "the consumption death-rate may be a measure of the sanitary condition of the town or district." Dr. Arthur Ransome points out that "the death-rate from consumption amongst the English troops quartered in Canada was 23 per 1000, against 10 per 1000 of their compatriots stationed at home. After the barrack had been properly drained and ventilated the mortality had sunk from 23 per 1000 in 1865 to 9.5 in 1872 and 6 in 1874." Again, Dr. Guy's investigations led him to the conclusion that the cause of the disease was insufficient cubic space. "Of 104 men having less than 500 cubic feet of air, 13 suffered from blood-spitting and 13 from catarrh. Of 115 who had 500 feet to 600 feet five suffered from the former and four from the latter. Of 101 men having more than 600 feet only four suffered from blood-spitting and two from catarrh." Once more Dr. Parkes relates how in the badly-ventilated prison, the Leopoldstadt of Vienna, the death-rate from consumption was, 1834-1847, 51.4 per 1000, while in the well-ventilated House of Correction in the same city only 7.9 per 1000 died from phthisis.

It is quite clear, then, that we must look to works of sanitation and not to sanatoriums for the accomplishment of the ends we have in view. The sanitary engineer, working slowly yet surely, must displace the medical enthusiast who, with a light heart, is prepared to advise the incurring of another national debt for the purpose of covering the country with his so-called cure-houses.

Against the determination to add consumption to the long list of specialised subjects I enter an earnest protest. Dr. Clifford Allbutt declares that he looks "with little confidence to the treatment of phthisical patients by a physician unused to the practice of the sanatorium." Again, "It is not too readily to be admitted that the treatment can be carried out elsewhere than in a sanatorium." If this is not a claim that a "corner" has been established in fresh air—which commodity "cannot be obtained at any other house in the trade"—it is nothing. The contention of Sir Dyce Duckworth that there is a danger that the personal factor may be ignored and that the disease and not the patients will be treated "like so many ninepins turned off the same lathe out of one block of wood" is met by a declaration of Dr. Clifford Allbutt that "it is no paradox to say that in the congregations of the sanatorium we have learnt individual treatment." What! with one physician to 50, 60, or 70 patients? I say that it is a very considerable paradox. I say that "the thralldom of routine and the grosser temptations of the hotel-keeper" are set dead against individual treatment. The suggestion of Dr. Parkes that sanatoriums should be established "as safeguards to the public health" means nothing less than that they should be used as prisons in which consumptives shall be compulsorily detained. That this is the aim and object of many public health officials we have been made aware, but that Englishmen will ever consent to take such a toll of humanity is not believable.

I am, Sirs, yours faithfully,

Nottingham, Dec. 10th, 1901. EDWARD DEAN MARRIOTT.

## EXCESS OF SALT IN THE DIET A PROBABLE FACTOR IN THE CAUSATION OF CANCER.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 7th I read with great interest Dr. Braithwaite's article on the Causation of Cancer. In a semi-popular book entitled, "Fads of an Old Physician," Dr. George Keith gives expression to a theory which is practically the same as Dr. Braithwaite's, though he endeavours to substantiate it more from the therapeutic point of view. In Chapter vii. of this book Dr. Keith says: "I had long known that high living, that is, the use of wine and other stimulants, and of strong animal food, aggravated in an extraordinary manner all the symptoms arising from this terrible disease." I am sure that the whole chapter will prove of interest in connexion with Dr. Braithwaite's theory.

I am, Sirs, yours faithfully,

H. CRICHTON MILLER, M.B. Edin.

San Remo, Italy, Dec. 15th, 1901.

## NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

*The Plague Epidemic.—Commissions to Plague Medical Officers.—The Soldier's Beer.—The Water-supply of Rangoon.—Interesting Points in the Treatment of Rabies.*

ALTHOUGH the virulence of the plague epidemic seems to be abating in the worst districts of the Bombay Presidency the disease is spreading and developing in other parts. For the week ending Nov. 23rd there were 8431 deaths from plague throughout India, as compared with 8710 deaths for the previous seven days. The decrease in the Bombay Presidency was from 6859 to 5980 and in Bengal there was a reduction in the number of deaths from 258 to 173. On the other hand, the Punjab returned 1220 deaths as against 851, and the Lahore district has for the first time become infected. The Mysore State reported 447 deaths as compared with 416 during the previous week. The most serious development has occurred at Poona. The whole place has now become infected and large numbers of rats have been found dead and dying in several quarters. This recrudescence at Poona was foreshadowed several weeks ago, but the people there imagined that they were going to escape and the outbreak is described as a hidden rising. A meeting has only recently been held to concert plans for abating it. Had the authorities studied the history of outbreaks they would have known what to expect. In Calcutta there are already signs that another outbreak may be expected. There have only been a few more deaths from plague reported, but the total mortality, which has for some time been below normal, has steadily increased. It may be several weeks before the recrudescence distinctly shows itself, but that it will come there can be little doubt. In Bombay the weekly return of deaths from plague continues at about 170 or 180—the rate of general mortality being about 52 per 1000. In Madras there is also a very high death-rate, the last return giving it at 60·5 per 1000 as compared with the average of 39 per 1000, but the deaths here are chiefly due to cholera, bowel complaints, and "fever."

The Secretary of State has decided to offer 22 commissions in the Indian Medical Service to the medical men who were engaged to combat the plague. Those who accept will be ranked under the forthcoming batch of candidates from Netley. Only those who were within the prescribed age when they commenced plague duty will be selected. For the junior men this may be an advantageous offer, but even for them it would be better to go home and to compete in the usual way. Those who accept the proffered commissions will always be "marked" men, and it is doubtful whether they will ever get the same standing as their regular colleagues.

Following the scare of poisoned beer in Lancashire it has been ruled by the military authorities in India that all beer issued to troops, whether country-brewed or imported, shall be periodically subjected to chemical analysis under arrangements to be made by the sanitary officer of the command.

Rangoon has for some time past been troubled about its water-supply. Experiments have been made ever since 1894 to find out whether tube wells would solve the difficulty. In a recent report by the sanitary engineer it was shown that the wells which have been made are altogether unsatisfactory and that the cost of increasing them would be prohibitive. Moreover, the supply and nature of the water cannot be depended upon. The conclusion come to is that tube wells in Rangoon are only suited for mills and factories. The waterworks scheme which I have previously reported upon will therefore probably be proceeded with.

The returns of the Pasteur Institute at Kauli are of more than passing interest. During the past year the failures in treatment have been only 1 per cent. and no failures occurred among the European patients. The extraordinary virulence of the poison from the fangs of a mad jackal are not sufficiently recognised. Forty natives were bitten by one jackal, of whom six died, but in three of the deceased the disease set in within 14 days of the completion of treatment. Natives delay in attending for treatment. The usual incubation period when the virus is implanted on a rabbit's brain is 14 days. It has been made clear that special measures are necessary when the jackal's virus has to be dealt with and the usual course must be accelerated. The mortality from bites of mad jackals averages 85 per cent. where no treatment is given. Since this batch of 40 cases there have been 15 cases of jackal bite treated by a more intensive method

and not a single failure has been reported. In connexion with the Pasteur treatment for rabies it is interesting to note the custom of centuries ago in Egypt. The people then took out the rabid animal's brain and spinal cord which they rubbed thoroughly, like oil, into the skin of the patient. How often this was done I have not seen recorded, but it is quite possible that through abrasions in the skin, perhaps through the wound itself, the virus was introduced and immunised the patient against the usual subsequent development of the poison.

Nov. 29th.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

*The Liverpool University Scheme.*

At a meeting of the Liverpool University Committee held on Dec. 17th Principal A. W. W. Dale, of University College, being in the chair, the executive committee presented their report, in which they recommended that efforts be made to raise an additional capital sum of £330,000 and a further income of £9000 a year. Of the above capital sum, which it is hoped may be provided by the gifts of Liverpool citizens and others interested in higher education, £130,000 would be required for the erection and equipment of additional buildings and for the purchase of more land. The balance of £200,000 would supply an endowment for the professional chairs and lectureships most urgently needed and the organisation of a department for commercial education in its highest branches. The report will in due time be submitted to the council of University College, and in the event of approval the Lord Mayor will be asked to convene a town's meeting to consider the subject of founding a university for the city of Liverpool.

*Presentation to Dr. T. R. Glynn.*

In the early part of the year Dr. T. R. Glynn's colleagues at the Royal Infirmary and other medical friends, on the occasion of his retirement from the office of honorary physician to the Royal Infirmary, determined to mark their appreciation of his long and devoted services to that charity by presenting him with his portrait painted in oils. The picture, which was painted by Mr. R. E. Morrison, a well-known local artist, is now in the Liverpool autumn exhibition, where it has been universally admired as a most striking likeness. The surplus amount of the subscriptions collected for the purpose was utilised in adding the portrait of Mrs. Glynn to that of her husband. On Dec. 18th the portraits were presented to the esteemed couple at a dinner given by the subscribers to the testimonial. The gathering, which took place at the Adelphi Hotel, was a large and representative one and was graced by the presence of ladies. After the usual loyal toasts had been honoured Dr. Richard Caton, the chairman, proposed "The Guest of the Evening" in cordial terms. He referred to Dr. Glynn's long services to the Royal Infirmary and the immense value of his work as a physician and teacher of medicine, and told him how much he was missed by the patients, the students, and his late colleagues at the Royal Infirmary. On behalf of the subscribers he begged Dr. and Mrs. Glynn to accept the portraits. Dr. Glynn made a suitable reply, which was received with enthusiasm. Mr. Rushton Parker proposed Mrs. Glynn's health in a humorous speech which caused much merriment, and to the delight of everyone present Mrs. Glynn made a happy response on her own behalf. Sir William Banks paid a high tribute to Mr. R. E. Morrison's skill and success as a portrait painter, remarks which were suitably acknowledged by Mr. Morrison.

Dec. 22nd.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

*A Medical Divorce.*

ANOTHER medical drama, played out, however, in the law-courts and not on the stage, has just been presented to the public. A medical man sued for a divorce against his wife, and the wife, in order to get some counter-evidence against her husband, employed a detective agency to watch and to report to her. She even laid a trap for him as follows. She suborned a woman to consult him, and this woman asked him to come to her house. When he arrived there he in

the course of his examination proceeded to auscultate her chest, and at the moment when he was listening to her heart from behind, with his ear close against her back, a whole troop of persons burst into the room—including his wife, her father and her mother—who all screamed in concert and declared that the auscultation was nothing but a pretence. The persecuted physician has accordingly sued everyone concerned, including the detective agency, for 100,000 francs damages.

Dec. 23rd.

## Medical News.

UNIVERSITY OF LONDON.—The following candidates have been successful in the examinations indicated:—

### M.S. EXAMINATION.

Joseph Faulkner Dobson, Yorkshire College and General Infirmary, Leeds; Arthur Henry Evans, Westminster Hospital; Hugh Mallinson Rigby, London Hospital; and Philip Turner, Guy's Hospital.

### M.D. EXAMINATION.

**Medicine.**—Frederick Holgate Atkinson, Charing-cross Hospital; Arthur Stanley Barnes, B.Sc., Birmingham University; Edward Vipont Brown, St. Bartholomew's Hospital and Owens College; Stanley Arthur Bull, Westminster Hospital; Joseph E. Goodfellow Calverley, B.Sc., St. Bartholomew's Hospital; Harold Selwyn Capper, University College; Arthur Stanbury Cobbedick, B.Sc., St. Bartholomew's Hospital and Bristol Medical School; Maurice Were Coleman, St. Bartholomew's Hospital; Albert Ruskin Cook, B.Sc., St. Bartholomew's Hospital and Cambridge University; Percy Robert Cooper, B.Sc., Owens College, Manchester Royal Infirmary, and St. Bartholomew's Hospital; Frank Sherwill Dawe, B.Sc., St. Mary's Hospital; John Thomas Dunston, B.Sc., Herbert Lightfoot Eason, B.Sc., and William Norwood East, Guy's Hospital; Joseph George Emanuel, B.Sc., B.Sc., Birmingham University; William Layard Griffiths, B.Sc., University College; John Grimshaw, London Hospital; George Henry James Hooper, Charing Cross Hospital; Charlotte Elizabeth Hull, B.Sc., and Mary Muriel Griffin Iles, B.Sc., London (Royal Free Hospital) School of Medicine for Women; Frank Harwood Jacob, King's College; Harriett Minnie Levick, B.Sc., London (Royal Free Hospital) School of Medicine for Women; Donald Johnstone McGavin, Queen's Hospital, Birmingham, and Birmingham University; Brian Melland, Owens College and Manchester Royal Infirmary; Julius Moore, Guy's Hospital; Winifred S. Patch, B.Sc., B.Sc., London (Royal Free Hospital) School of Medicine for Women; Arthur Robert George Pocock, University College; George E. J. A. Robinson, B.Sc., King's College and Dublin University; \*Lewis Albert Smith, London Hospital; Mabel Geraldine Stevenson, B.Sc., London (Royal Free Hospital) School of Medicine for Women; Walter Henry Maxwell Telling, B.Sc. (Gold Medal), Guy's Hospital and Leeds General Infirmary; Harold John Van Praagh, St. Mary's Hospital; Ethel Miller Vernon, B.Sc., London (Royal Free Hospital) School of Medicine for Women; William Bertram Watson, St. Mary's Hospital; Eliza Turner Watts, B.Sc., London (Royal Free Hospital) School of Medicine for Women; and William Henry Willecox, B.Sc., St. Mary's Hospital.

**State Medicine.**—Francis Seymour Lloyd, St. Mary's and Guy's Hospitals.

\* Obtained the number of marks qualifying for the Gold Medal.  
N.B.—The foregoing lists, published for the convenience of candidates, are provisional only, and are not final until the reports of the Examiners shall have been confirmed by the Senate.

UNIVERSITY OF CAMBRIDGE.—At the third examination for medical and surgical degrees, Michaelmas term, the following candidates were successful:—

### PART II.

**Medicine.**—R. G. Abercrombie, B.A., Caius; A. G. Bate, King's; F. H. Beckett, B.A., H. Selwyn; A. P. Bowdler, B.A., Sidney Sussex; F. G. Bowen, B.A., Caius; C. de L. Carey, B.A., Emmanuel; E. I. Claxton, B.A., King's; J. G. Cooke, B.A., Sidney Sussex; G. W. Deeping, B.A., Trinity; A. B. Dunn, B.A., Queen's; A. J. Fairlie Clarke, B.A., Emmanuel; A. C. Hudson, B.A., Trinity; E. B. Leech, B.A., Christ's; D. J. Morgan, B.A., and J. S. S. Perkins, B.A., St. John's; J. W. Pettinger, B.A., H. Selwyn; H. V. Pryce, B.A., and J. W. Rob, B.A., St. John's; R. Rolfe, B.A., Clare; F. Sanger, M.A., St. John's; A. de W. Snowden, M.A., Christ's; J. Stirling-Hamilton, B.A., Jesus; E. J. D. Taylor, B.A., Caius; G. L. Tuck, B.A., Emmanuel; E. G. Wales, B.A., Downing; H. H. Weir, B.A., Trinity; J. Wharton, B.A., St. John's; M. Wilson, B.A., Trinity Hall; and F. E. Wood, B.A., Downing.

SOCIETY OF APOTHECARIES OF LONDON.—At examinations held in December the following candidates passed in the subjects indicated:—

**Surgery.**—J. W. W. Adamson (Section I.), St. George's Hospital; A. A. E. Baptist, Calcutta; R. O. Bennett, University College Hospital; L. Courtauld (Section I.), Cambridge and Middlesex Hospital; W. P. A. Hardwicke, Durham; D. V. Muller (Section II.), Charing Cross Hospital; F. A. Paterson (Section II.), Royal Free Hospital; W. G. Rogers (Sections I. and II.), Cardiff and Charing Cross Hospital; C. W. Smith (Sections I. and II.), Sheffield; W. Thorp (Sections I. and II.), Royal Free Hospital; and C. Watson (Sections I. and II.), Dublin and Westminster Hospital.

**Medicine.**—W. Alcock (Sections I. and II.), Sheffield; T. J. M. Clapperton (Sections I. and II.), King's College Hospital; J. T. Crowe, St. Mary's Hospital; J. M. King (Sections I. and II.), University College Hospital; C. A. Lower (Section II.), Guy's Hospital and Bristol; D. V. Muller (Section II.), Charing Cross

Hospital; W. G. Rogers (Sections I. and II.), Cardiff and Charing Cross Hospital; C. W. Smith (Sections I. and II.), Sheffield; W. Thorp (Sections I. and II.), Royal Free Hospital; S. C. Wilkinson (Sections I. and II.), Leeds; and J. H. Williams London Hospital.

**Forensic Medicine.**—T. J. M. Clapperton, King's College Hospital; W. T. Colyer, Cambridge; G. Cross, St. Thomas's Hospital; J. T. Crowe, St. Mary's Hospital; W. G. Rogers, Cardiff and Charing Cross Hospital; C. W. Smith, Sheffield; and W. Thorp, Royal Free Hospital.

**Midwifery.**—J. H. Clements, University College Hospital; K. A. Dawson, Royal Free Hospital; A. Dewar, McGill and Westminster Hospital; G. Dewick and B. M. Dunstan, St. Thomas's Hospital; H. J. Gater, D. R. T. Griffiths, and G. W. C. Hollist, Guy's Hospital; A. Holroyde, Leeds; C. H. Pring, Westminster Hospital; W. G. Rogers, Cardiff and Charing Cross Hospital; C. J. Taylor, Bristol; and W. Thorp, Royal Free Hospital.

The Diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery: J. T. Bennett, T. J. M. Clapperton, G. Cross, J. T. Crowe, C. A. Lower, D. V. Muller, F. A. Paterson, W. G. Rogers, C. W. Smith, and W. Thorp.

### FOREIGN UNIVERSITY INTELLIGENCE.—Graz:

Dr. O. Drasch has been promoted to a full Professorship of Histology and Embryology.—*Königsberg*: Dr. Scholtz has been recognised as *privat-docent* of Dermatology.—*Marsailles*: Dr. Boinet has been appointed Clinical Professor of Medicine.—*Rio de Janeiro*: Dr. Miguel Couto has been recognised as *privat-docent* of Surgical Anatomy.—*Rome*: Dr. Ambrogio Cuneo has been recognised as *privat-docent* of Surgical Anatomy and Operative Medicine.—*Strasbourg*: Dr. Karl Adrian has been recognised as *privat-docent* of Dermatology.—*Vienna*: Dr. Heinrich Albrecht has been appointed Extraordinary Professor of Pathological Anatomy.

**SUPERANNUATION.**—At the meeting of the Exeter Board of Guardians held on Dec. 17th Dr. John Woodman, who has recently resigned the post of medical officer to the city workhouse after 35 years' service, was granted a superannuation allowance of £64 per annum. A motion of appreciation of the services of Dr. Woodman was unanimously passed.

**ROYAL UNITED HOSPITAL, BATH.**—At the meeting of the committee of this hospital held on Dec. 16th it was stated that Mr. Richard J. H. Scott and Mr. Frederick K. Green, senior surgeons to the institution, had resigned their appointments. The resignations were accepted with great regret, both gentlemen having been connected with the Royal United Hospital for over 20 years.

**THE LATE PROFESSOR ALFRED HUGHES.**—The committee appointed in connexion with the proposed memorial to the late Professor Alfred Hughes have collected the sum of £1800, inclusive of £1000 given by Mrs. Hughes. This amount is to be handed over to the Cardiff College Council to provide an "Alfred Hughes Memorial Medal" to be awarded annually in the class of anatomy at the college and also to endow the anatomical museum of the college.

**FREEMASONRY.**—*Cheselden Lodge, No. 2870.*—At a meeting of this lodge held at the Trocadero, Piccadilly-circus, on Monday, Dec. 16th, the W.M. Bro. Thomas Wakley, jun., being in the chair, Mr. J. G. Wainwright, Treasurer of St. Thomas's Hospital; Mr. C. A. Ballance, M.S. Lond., F.R.C.S.; the Rev. Gilbert Weigall, Chaplain of St. Thomas's Hospital; Mr. F. C. Abbott, M.S. Lond., F.R.C.S.; and Mr. H. C. Jonas, M.R.C.S., L.R.C.P. Lond., were initiated into Freemasonry.

**GREAT ORMOND-STREET HOSPITAL FOR CHILDREN.**—On Jan. 15th, 1902, a grand children's fancy-dress ball will be held in the concert-room of the Crystal Palace in aid of the Great Ormond-street Hospital for Children. Among the patrons of the ball are the Duchess of Teck, the Duchess of Newcastle, the Marchioness of Londonderry, the Marchioness of Waterford, the Countess of Bradford, the Countess of Essex, the Countess of Lonsdale, the Countess of Pembroke, the Countess of Warwick, Lady Brassey, and Lady Howard of Glossop.

**BACTERIOLOGICAL EXAMINATIONS.**—At the meeting of the Keynsham Rural District Council held on Dec. 17th a communication was read from the Local Government Board with reference to the payment by the council of fees for bacteriological examinations in suspected cases of diphtheria. It stated that it appeared to the Board that a district council might legally pay such fees, but it would be a matter for the decision of the district auditor. The Board advised the council that in bacteriological examinations a single negative result could not be regarded as decisive and was therefore of far less value than a positive result. One bacteriological examination in a given case of

disease would not invariably yield evidence of the presence of the particular bacillus in the material, and it would be for the medical officer of health to give a caution to this effect to the medical practitioners attending the patients in cases which, though clinically suspicious, did not on a single test furnish sufficient evidence to warrant their being classed bacteriologically as diphtheria.

**DEATH OF A CENTENARIAN.**—Mrs. Agnes Groves of Lymouth died on Dec. 14th, aged 100 years and 14 days.

**NOTIFICATION OF WHOOPING-COUGH.**—At the meeting of the Budleigh Salterton District Council held on Dec. 17th it was decided to omit whooping-cough from their list of diseases to be notified under the Infectious Diseases Notification Act.

**THE NEW HOSPITAL FOR CONSUMPTION AT NORWOOD.**—The foundation-stone of the country branch of the Mount Vernon Hospital for Consumption, Norwood, will be laid in May, 1902, by Princess Christian. Mr. E. Steinkopff has given £500 towards the £3000 required to complete the hospital at Hampstead.

**THE Director-General of the Army Medical Department** has written to Surgeon-Major J. J. de Z. Marshall, 3rd Volunteer Battalion East Surrey Regiment, on behalf of the Secretary of State for War, a letter of thanks for valuable services rendered in medically treating the wives and children of soldiers serving in South Africa and men invalided from the seat of war who have resided in the neighbourhood of Teddington.

**DONATIONS AND REQUESTS TO HOSPITALS.**—The late David McCosh, I.M.S., by his will bequeathed the following amongst other legacies:—Edinburgh Royal Infirmary, £50,000; the Sick Children's Hospital and the Longmore Hospital for Incurables, £100 each.—The Italian Hospital, Queen-square, London, W.C., has been promised anonymously £500 towards the £2500 required for the purpose of opening closed beds and to meet hospital expenses.

**ROYAL COLLEGE OF SURGEONS IN IRELAND.**—THE LATE SIR WILLIAM MAC CORMAC, BART., K.C.B., K.C.V.O., F.R.C.S. Irel.—At a meeting of the Council of the College held on Dec. 19th the following motion was unanimously adopted:—"That the President, Vice-President, and Council desire to convey to Lady MacCormac their profound sympathy with her in her great bereavement and at the same time to give expression to their appreciation of the irreparable loss which the science of surgery has sustained by the death of their distinguished fellow-countryman, her illustrious husband."

**OPENING OF WHITWORTH HALL.**—The expected visit of the Prince of Wales to Owens College in March next to open the Whitworth Hall is looked forward to with great interest. The foundation-stone of the hall was laid by the Duke of Devonshire in June, 1898, and it is the handsomest as well as the latest addition to the buildings of the College. It is to the generosity of the late Mr. R. C. Christie, as one of the legatees of the late Sir Joseph Whitworth, that this addition to the college is due. He devoted upwards of £50,000 to the purpose, only stipulating that the name of Whitworth should be associated with the new buildings. Mr. Christie did not live to see the finish of the work, and thus there is something pathetic in the letter announcing his intention: "Having regard to what I know to have been his most cherished designs in the disposition of his fortune, I believe I shall be acting in accordance therewith, and shall be effectually furthering the cause of higher education in Manchester and neighbourhood, in offering the bulk of this balance to the Owens College for the erection of a hall for the public gatherings of the College and, so far as the amount available will extend, for the completion of the College buildings."

#### BOOKS, ETC., RECEIVED.

BAILLIÈRE, TINDALL, AND COX, 8, Henrietta-street, W.C.

A Handbook of Pathological Anatomy and Histology. By Francis Delafield, M.D., LL.D., of New York, and T. Mitchell Prudden, M.D., LL.D., of New York. Sixth edition. Price 21s. net.  
Manual of the Diseases of the Eye. For Students and General Practitioners. By Charles H. May, M.D., of New York. Second edition, revised. Price 8s. 6d. net.

The Estivo-Autumnal (Remittent) Malarial Fevers. By Charles F. Craig, M.D. (Yale). Price 10s. 6d. net.  
On the Composition of Dutch Butter. By Dr. J. J. L. van Ryn, Director to the Royal Agricultural Experimental Station at Maastricht. Price not stated.

CHURCHILL, J. & A., 7, Great Marlborough-street, W.

Reports of the Society for the Study of Disease in Children. Volume I. Session of 1900-1901. Edited by the Hon. Secretaries: Sydney Stephenson, C.M., George Carpenter, M.D., London; Theodore Fisher, M.D., Provincial. Price 12s. 6d.

DAWBARN AND WARD, LTD., 6, Farringdon-avenue, E.C.

Practical Radiography. A Handbook for Physicians, Surgeons, and other users of X-Rays. By A. W. Isenthal, F.R.P.S., and H. Snowden Ward, F.R.P.S. Third edition. Published for the Photogram, Ltd. Price 6s.

GREEN, WILLIAM, AND SONS, St. Giles-street, Edinburgh.

Encyclopedia Medica. Under the general editorship of Chalmers Watson, M.B., M.R.C.P.E. Volume IX. Osteo-Arthropathies to Pregnancy (Physiology). Price not stated.

HAZELL, WATSON, AND VINEY, LTD., 52, Long-acre, W.C.

Hazell's Annual for 1902. A Cyclopædic Record of Men and Topics of the Day. Edited by W. Palmer, B.A. Lond. Price 3s. 6d. net

HIRZEL, S., Königsstrasse, 2, Leipzig.

Schmidt's Jahrbücher der in und ausländischen gesammten Medicin. Herausgegeben von P. J. Möbius und H. Dippel in Leipzig. Band 268. Jahrgang 1901. Heft 2. Ausgegeben am 15. Februar, 1901. Price: single part, 4 marks; year's issue (12 parts), 36 marks.

HÖPPLI, ULRICO, Milan, Italy.

Le Malattie del Sangue. Manuale d'Ematologia. By Dr. Emilio Rebuschini. L3.50.

HURST AND BLACKETT, LTD., 13, Great Marlborough-street, W.

Mexico as I Saw it. By Mrs. Alec. Tweedie (née Harley), author of "Through Finland in Carts," "George Harley, F.R.S.," &c. Illustrated from photographs by the author. Price not stated.

WILLIAMS AND NORGATE, 14, Henrietta-street, W.C.

Epitome of the Synthetic Philosophy of Herbert Spencer. By F. Howard Collins. With a Preface by Herbert Spencer. Fifth edition. (The Philosophy completed and in part revised.) Price 21s.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

CHRONNEL, JAMES, M.R.C.S., L.R.C.P. Irel., has been appointed Medical Officer of Health to the Hindley Urban District Council, Lancashire, vice Joseph E. Parker, resigned.

DONSON, MARGARET B. AUSTIN, M.B. Lond., has been appointed a Medical Officer at the Lincolnshire County Asylum at Bracebridge. FORSYTH, R., M.D. Glasg., has been re-appointed Medical Officer of Health for Birstall.

GEDGE, A. S., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer for the Fifth District of the Devises Union.

JAMES, HERBERT, L.R.C.P. Lond., M.R.C.S., has been appointed Resident Medical Officer to the Swansea General and Eye Hospital.

MACGREGOR, G., M.D. Aberd., has been re-appointed Medical Officer of Health to the Bingley Urban District Council.

MOWAT, GEORGE, M.B., Ch.B. Aberd., has been appointed Senior House Surgeon to the Royal Infirmary, Wigan, vice Harry Holmes, resigned.

OWEN, EDMUND, F.R.C.S. Eng., Surgeon to St. Mary's Hospital, has been appointed Consulting Surgeon and Surgeon-in-Chief to the French Hospital in the place of the late Sir William MacCormac.

PORTER, CHARLES, M.D. R.U.I., Medical Officer of Health to the Salop County Council, has been appointed Medical Officer of Health to the Johannesburg Municipality, South Africa.

PRESTON, L. L., M.B., B.S. Durh., has been appointed Medical Officer of Health for St. Helens, Lancs.

ROBERTSHAW, W. M., M.B., M.S. Edin., has been re-appointed Medical Officer of Health to the Stocksbridge Urban District Council.

ROBINSON, G. A., M.B., B.S. Durh., has been appointed Junior Surgeon at the Samaritan Hospital for Women.

RUSSELL, R. HAMILTON, F.R.C.S. Eng., has been appointed Surgeon to In-patients at the Alfred Hospital, Melbourne, Victoria.

SANDILAND, DIGBY S., M.R.C.S., L.R.C.P. Lond., has been appointed Junior Resident Medical Officer to the West Ham Hospital, Stratford.

STANSFIELD, H., M.B. Vict. Univ., has been appointed Medical Officer for the district of Clayton, Yorkshire.

TOD, HUNTER, F., M.A., M.B., B.C. Cantab., F.R.C.S. Eng., has been appointed Assistant Aural Surgeon to the London Hospital.

WILKINSON, W. A. H., M.B., Ch.B. Vict., has been re-appointed Medical Officer of Health for Gainsborough.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

**BRADFORD ROYAL INFIRMARY.**—Dispensary Surgeon, single. Salary £100 per annum, with board and residence.

**CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST,** Victoria-park, N.—Second House Physician for six months, with board, washing, and residence. Salary at the rate of £30 per annum.

**DEVONSHIRE HOSPITAL,** Buxton, Derbyshire.—House Surgeon and Assistant House Surgeon. Salary, House Surgeon £100 per annum, Assistant £50 per annum, with apartments, board, and lodging.

**DURHAM COUNTY ASYLUM.**—Junior Assistant Medical Officer. Salary £140, rising to £160, with board, laundry, and attendance.

**GLASGOW ROYAL INFIRMARY.**—Superintendent. Salary £500 per annum, with board, residence, &c.

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST,** Brompton.—Resident House Physicians for six months. Honorarium of £25.

**KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.**—House Surgeon. Salary £140 (increasing to £170), with rooms and attendance.

**LANARK COUNTY ASYLUM,** Hartwood, Glasgow.—Third Assistant Medical Officer and Pathologist. Salary £120 per annum, with fees, board, washing, and residence.

**NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY,** Douglas, Isle of Man.—Resident House Surgeon. Salary £32 per year, with board and washing free.

**NORFOLK COUNTY ASYLUM,** Thorpe, Norwich.—Junior Assistant Medical Officer, single. Salary £120 per annum, with board, lodging, and washing.

**NOTTINGHAM GENERAL HOSPITAL.**—Assistant House Surgeon. Salary £100, with board, lodging, and washing.

**ROYAL INFIRMARY OF EDINBURGH.**—Pathologist. Salary £400 per annum.

**SOUTHPORT INFIRMARY.**—Resident Junior House and Visiting Surgeon (unmarried), for six months, renewable. Honorarium at rate of £60 per annum, with residence, board, and washing.

**STOCKTON AND THORNHAY HOSPITAL,** Stockton-on-Tees.—House Surgeon. Salary £250 per annum.

**ST. OLAVE'S UNION CHILDREN'S HOMES.**—Dentist. Salary £30 per annum.

**SUNDERLAND INFIRMARY.**—House Surgeon. Salary £100, increasing, with board and residence.

**UNIVERSITY OF LONDON.**—Examiners.

**VICTORIA HOSPITAL FOR CHILDREN,** Queen's-road, Chelsea, S.W.—House Surgeon for six months. Honorarium of £25 per annum, with board and lodging.

**WESTMORLAND CONSUMPTION SANATORIUM.**—Resident Medical Officer, single. Salary £150, all found.

**WHITECHAPEL UNION INFIRMARY,** Vallance-road, N.E.—First Assistant Resident Medical Officer. Salary £130 per annum, rising to £150, with rations, apartments, coal, gas, and washing.

**WORCESTER COUNTY AND CITY ASYLUM.**—Junior Assistant Medical Officer, single. Salary £140, rising to £160, and all found.

## Births, Marriages, and Deaths.

### BIRTHS.

**NASH.**—On Dec. 16th, at Oakfield House, Accrington, Mary Monica, wife of Elwin H. T. Nash, M.R.C.S., L.R.C.P. Lond., of a son.

**SUTHERLAND.**—On Dec. 17th, at George-square, Edinburgh, the wife of L. R. Sutherland, M.B., M.S. Glasg., Professor of Pathology, University of St. Andrews, of a daughter.

**TENNYSON-SMITH.**—On Dec. 18th, at The Birches, Orpington, Kent, the wife of A. Tennyson-Smith, M.D. Aberd., of a daughter.

### MARRIAGES.

**BOUSFIELD—HUTCHINSON.**—On Dec. 17th, at St. Margaret's, Lee, Stanley Bousfield, M.A. Cantab., M.R.C.S., L.R.C.P. Lond., to Jessie Mary, younger daughter of Thomas Hutchinson.

**BROUGHTON—DAVIES.**—On Dec. 17th, at the parish church, Batley, by the Rev. T. Bolton, vicar of Staincliffe, Dr. Alfred G. S. Broughton, M.B., Ch.B., eldest son of Dr. A. W. Broughton, L.F.P.S.G., of Batley, to Mary, eldest daughter of the Rev. Canon Davies, vicar of Batley.

**DYKES—TRAVERS.**—On Dec. 14th, at St. Andrew's Church, Silchar, India, Lieutenant Campbell Dykes, I.M.S., M.B. Lond., B.Sc. Edin., to Lillian Ethel, youngest daughter of the late Otho William Travers.

**JACKSON—PAGET.**—On Dec. 17th, at St. Andrew's Church, Derby, Richard Houlton Jackson, M.R.C.S., L.R.C.P. Lond., to Rose May, eldest daughter of the late Arthur Paget, Loughborough.

**MARTIN—ROLFE.**—On Dec. 21st, at St. Mary's, Bryanston-square, John Middleton Martin, B.A., M.B., B.C., D.P.H. Cantab., to Louisa Margaret, youngest daughter of the late Robert Holmstedt Rolfe.

### DEATH.

**COOK.**—On the 16th inst., at 6, Albert-terrace, Bedford, Lieutenant-Colonel Henry David Cook, I.M.S., retired, in his 55th year. Indian papers please copy.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## Notes, Short Comments, and Answers to Correspondents.

### MEDICAL AID ASSOCIATIONS AND THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—Is it not time that some little common sense was instilled into the General Medical Council and their methods of improvement of the status and pay of general practitioners? By the way, is there on the Council a *bond fide* general practitioner or a member qualified by experience to minister to the general practitioner's wants? Their whole scheme of legislation is destructive instead of being constructive, and the tendency of their work, instead of being to help, is to handicap as seriously as possible the already hard-pressed general practitioner. Take the unqualified assistant. What good did the stringent rule as to his suppression do?—turned adrift, in some cases a man with a practical knowledge of medicine, to make a questionable use of it, or in the case of the more influential practitioner no change has been made—the unqualified man is retained and will be. The Midwives Bill—as if any sensible man wishes to see midwives registered. Are there not enough nurses with an obstetric training, both amateur and professional? What medical man wishes to hand over all his straightforward cases and with them his guineas, to a midwife and retain only the difficult ones—at the same fee, I presume—because they, the difficult ones, are interesting? Interesting, forsooth! The average medical man cares more about the fee than the nature of the confinement. I can at least speak for myself. I do; and the man who says that he does not is either a liar or a fool unless he be independent of his profession for his livelihood. Now they attack the Medical Aid Association. I can tell of many men in good practice who do not scorn to avail themselves of the pecuniary assistance of these societies, and those that do are, in my experience, men who are, fortunately for themselves, too busy with a more lucrative class of work and to whom this attempt at suppression—this sacrifice at the shrine of professional dignity—does not touch in their vital part—the pocket. I could also tell of men, who now have large practices and who are amongst the bitterest opponents of medical aid associations, who, when they started, were only too glad to avail themselves of their help. Why not start with the head of the profession? Why should not a young medical man, poor, struggling, with no means of keeping up his professional knowledge except by frequenting the wards of a large hospital and being patronised by the staffs—why should not he avail himself of this medical aid association work and thereby obtain the practice, advertisement, and experience, and, at the same time, the small and welcome remuneration? And there are many who could say how welcome, if they only had the moral courage, if the consultant may do the same thing for nothing. The consultant has his two or three days a week free under the guise of a large institution and of charity, so why should the general practitioner be struck off the Register if he does the same? Where is the difference? At the same time, the consultant is welcome to his. I for one do not want a free day, but I want the nearest thing obtainable of the same kind, I want the practice and the small remuneration—I want the Medical Aid Association work at present. Who suffers by the abolition? Does the consultant? No. Does the general practitioner in good practice? No; but the young and struggling general practitioner does; and although his superiors are ready and willing to dock his small income in that way they are not equally ready to help him out of the fulness of either their purse or practice. And who gains? Why, of course, being as they—Medical Aid Association cases—usually are, trivial, they do not go to the family medical man and pay their 2s. 6d. or 3s. 6d., but they pay their 1s. or less and support the consulting chemist. Leave the Medical Aid Association alone. Those who do not want it can do without it, and there are plenty who want it and cannot do without it, more especially at first starting but do so afterwards, and why should they, even if they wish, be allowed to kick away the ladder by which they have climbed when it has served its purpose and by which others might follow if not prevented? No! Let the General Medical Council find some method of helping the starting practitioner before they try to take away even the least of his few and paltry supports.

I am, Sirs, yours faithfully,

Harrogate, Dec. 17th, 1901.

HARRY CLOUGH.

### WANTED—A SPA.

To the Editors of THE LANCET.

SIRS,—I am a sufferer from chronic gastritis with septic nasal and buccal cavities accompanied by phosphaturia. Can any of your readers recommend an English spa to suit my case and name a hydropathic or hotel there?

I am, Sirs, yours faithfully,

Nov. 27th, 1901.

ASSAM, L.R.C.P., &c.

### A QUESTIONABLE PUNISHMENT.

To the Editors of THE LANCET.

SIRS,—“What is sauce for the goose is sauce for the gander” is an old yet true adage. If I, who am a lowly L.S.A., prescribe an overdose of strychnine, I—not the dispenser—should be answerable for the consequences. He is not supposed to fathom the rationale of

my prescriptions. Yet if my patient died no one would seek to mitigate my error. Then why should my more distinguished brother escape his censure?

Stockport, Dec. 21st, 1901.

I am, Sirs, yours truly,

J. GOOD.

T. D. has raised some new points, but seems hardly to understand the situation. The practitioners in question were risking penalty from the law, and the General Medical Council could not countenance their action. The law may be wrong, but that is not the Council's fault.

D.—We are of opinion that it will conduce to harmony if the selection of the nurse is left to the matron, but the house committee might well lay down limitations as to wages, experience, age, &c., for the matron's guidance.

Mr. E. H. Stulton writes of a position of affairs that has been called attention to over and over again in our columns.

## Medical Diary for the ensuing Week.

### OPERATIONS.

#### METROPOLITAN HOSPITALS.

**MONDAY (30th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopaedic (2 P.M.), City Orthopaedic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

**TUESDAY (31st).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Free (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**WEDNESDAY (1st).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

**THURSDAY (2nd).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

**FRIDAY (3rd).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopaedic (2.30 P.M.).

**SATURDAY (4th).**—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.) At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

### SOCIETIES.

**WEDNESDAY (1st).**—OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. W. F. V. Bonney, Dr. Lewers, Dr. Lea, and others. Paper:—Dr. Lockyer: A Case of Chorio-epithelioma with Pulmonary Metastases.

**THURSDAY (2nd).**—RÖNTGEN SOCIETY (20, Hanover-square, W.).—8.30 P.M. Paper:—Mr. C. E. S. Phillips.

**HARVEIAN SOCIETY OF LONDON** (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Clinical Cases will be shown by Mr. E. Roughton, Dr. L. Guthrie, Mr. F. Jaffrey, and others.

**FRIDAY (3rd).**—WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith-road, W.).—8.30 P.M. Adjourned Discussion on Mr. T. R. Atkinson's paper on Small-pox, opened by Dr. Dobson with a paper on Glycerinated Calf-Lymph. A proposal will be moved in the following terms: "That the time has come when the Government should exercise control in the manufacture and sale of vaccine lymph and should endeavour to maintain a definite standard of purity and strength."

### LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

**FRIDAY (3rd).**—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chancery-street, W.C.).—4 P.M. Dr. H. Tilley: Clinique. (Throat.)

## EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed exclusively "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the

Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

## MANAGER'S NOTICES.

### THE INDEX TO THE LANCET.

THE Index and Title-page to Vol. II. of 1901, which is completed with the issue of to-day, will be given in the next number of THE LANCET.

### VOLUMES AND CASES.

VOLUMES for the second half of the year 1901 will be ready shortly. Bound in cloth, gilt lettered, price 18s., carriage extra.

Cases for binding the half-year's numbers are now ready. Cloth, gilt lettered, price 2s., by post 2s. 3d.

To be obtained on application to the Manager, accompanied by remittance.

### TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid and not to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or on any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and Agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

Communications, Letters, &c., have been  
received from—

- A.—Mr. E. Aylward, Tenby; A. B. S.
- B.—Mr. C. Braine-Hartnell, Stroud; Mr. A. Boyd, Pollokshields; Messrs. J. Bell and Co., Lond.; Birmingham Children's Hospital; Messrs. Burroughs, Wellcome, and Co., Lond.; Messrs. J. L. Bullock and Co., Lond.; Messrs. Boulton and Paul, Norwich; Mr. Haydn Brown, Lond.; Dr. F. Bushnell, Plymouth; Mr. J. G. Braden, Reading; Mr. R. C. Bartlett, Romsey; Dr. E. F. Buzzard, Lond.; Messrs. Bayliss, Thomas, and Co., Lond.
- C.—Miss Cooper, Lond.; Messrs. J. and A. Churchill, Lond.; Cortland Wagon Co. Lond.; Messrs. A. H. Cox and Co., Brighton; Dr. E. O. Cleft, Leeds; Mr. L. Culleton, Lond.
- D.—Dr. J. W. Dalglish, Bloemfontein, South Africa; Derby County Asylum, Clerk of; Messrs. Down Bros., Lond.; Mr. E. Darke, Lond.; Mr. F. Deas, Lond.
- E.—Messrs. Evans, Lescher, and Webb, Lond.; Dr. C. R. Elgood, Windsor.
- F.—Herr J. Fohn, Nagyvarad, Hungary; Mr. H. Frowde, Lond.; Messrs. Fairchild Bros. and Foster, Lond.; Fellows Medical Manufacturing Co., Lond.
- G.—Mr. J. Good, Stockport; Glasgow Southern Medical Society, Editorial Secretary of.
- H.—Messrs. Hamilton and Co., Lond.; Dr. H. Holmes, Wigan; Mr. R. Hall, Tunbridge Wells.
- I.—International Plasmon, Lond.
- K.—Messrs. P. S. King and Son, Lond.
- L.—Mr. H. K. Lewis, Lond.; Messrs. R. and S. Livingstone, Edinburgh; Dr. A. Latham, Lond.; Messrs. Lee and Nightingale, Liverpool; Mr. C. B. Lockwood, Lond.
- M.—Herr A. Mezci, Budapest; Medical Graduates' College, &c., Lond.; Secretary of; Myosin Albumin Meat Extract Co., Lond.; Messrs. Macmillan and Co., Lond.; Messrs. Manlove, Allott, and Co., Nottingham; Mendip Hills Sanatorium, Hill Grove, Resident Physician of; Mr. J. J. de Zouche Marshall, Teddington; Dr. Hector Mackenzie, Lond.; Dr. H. V. Munster, Croydon; Messrs. J. Maythorn and Son, Biggleswade; Messrs. Mather and Crowther, Lond.
- N.—Mr. H. Needes, Lond.; Noble's Isle of Man Hospital, Douglas, Isle of Man; National Telephone Co., Lond.; Nottingham General Hospital, Secretary of.
- P.—Mr. Y. J. Pentland, Edinburgh; Mr. J. M. Peay, Newburn, U.S.A.; Protene Co., Lond.; Mr. F. E. Potter, Lond.; *Practischeski Vrach*, St. Petersburg; Mr. F. F. Paul, Liverpool.
- R.—Messrs. Roberts and Co., Lond.; Rotherham Hospital, Secretary of; Messrs. Rebman, Lond.; Dr. G. E. Richmond, Elandsfontein; Major Ronald Ross, Liverpool; Royal College of Physicians, Edinburgh, Secretary of.
- S.—Mrs. Shackleton, Moone; Messrs. Spiers and Pond, Lond.; Scholastic, Clerical, &c., Association, Lond.; St. Mary's Hospital

Medical School, Lond., Secretary of; Southport Infirmary, Secretary of; Messrs. T. and H. Smith and Co., Edinburgh; Messrs. W. B. Saunders and Co., Lond.; Messrs. Scott and Bowne, Lond.; Mr. E. H. Stutter, Lond.; Messrs. G. Street and Co., Lond.; Society of Apothecaries of London, Secretary of.

T.—Dr. R. S. Thomas, Exmouth.

W.—Mr. C. J. Walker, Lond.; Monsieur H. Welter, Paris; Worcester County Asylum, Powick, Medical Officer of; Western Union Telegraph Co., Lond., General Manager of; Dr. Hugh Walsham, Lond.; Wills, Ltd., Lond.

Letters, each with enclosure, are also  
acknowledged from—

- A.—Dr. V. Alberti, Sale, Italy; A. M. G.
- B.—Mr. J. Bradford, Cambridge; Mr. William Bubb, Powick; Mr. C. H. Beck, Charlbury; Messrs. Battle and Co., Neuilly-sur-Seine, France; Burton-on-Trent Infirmary, Secretary of.
- C.—Dr. J. F. Cash, Aberdeen; Mr. G. W. Clark, Aldershot; Croydon Corporation, Borough Accountant of; Chalcot, Liscard; Messrs. J. W. Cooke and Co., Lond.; Croydon General Hospital, Secretary of.
- D.—Dr. F. C. Dwyer, Dublin; Dr. S. Delépine, Manchester; Messrs. H. Dawson and Co., Lond.; D. A. S.
- E.—Dr. D. S. Evans, Llanon.
- F.—Mr. A. T. Ford, Stroud.
- G.—Glasgow University, Secretary of.
- H.—Dr. J. Highet, Pretoria; Mr. J. Heywood, Manchester; Mr. J. V. Hartley, Queenstown; Mrs. Hogarth, Lond.; Mr. A. G. Herbert, Paris.
- K.—Dr. R. G. Kirton, Port Elizabeth, South Africa.
- L.—Mr. J. Lacayo, Manchester;
- Dr. J. C. H. Leicester, Bombay, India.
- M.—Dr. F. Morris, Ceres, South Africa; Manchester Ear Hospital, Secretary of; Messrs. C. Mitchell and Co., Lond.; M. J.; Mr. A. Mitra, Kashmir.
- P.—Dr. L. L. Proksch, Krantzskop, South Africa; Messrs. J. Patterson and Sons, Liverpool.
- R.—Mr. R. T. Richmond, Salisbury; Dr. C. H. Reissmann, Lond.; Rochdale Infirmary, Secretary of; Messrs. C. Richter and Co., Lond.
- S.—Mr. C. H. Sers, Lond.; Miss Stevenson, Lond.; Stockton and Thornaby Hospital, Secretary of; Mr. D. Sen, Purnea Lines; Mr. G. H. Sieveking, Hamburg.
- V.—Monsieur J. M. Vores, St. Servan, France.
- W.—Mr. W. Wilkins, Croxeth; Dr. E. Walker, Heckmondwike; Mr. L. Wallis, Lond.; W. O. C.; Mr. C. Wilts, Whitecross; Miss Webb, Haslemere; Mr. R. G. W. Wilson, Newcastle-on-Tyne; Dr. A. T. Tucker Wise, Montreux; Weir Hall, Upper Edmonton; Messrs. W. Watson and Co., Lond.

EVERY FRIDAY.

THE LANCET.

PRICE SEVENPENCE.

SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only reads a ready means of finding any notice but is in itself an additional advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

ADVERTISING.

Books and Publications	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application.

Agent for the Advertisement Department in France—J. ASTIER, 8 Rue Traversière Américaine, Paris.







UNIVERSITY OF CALIFORNIA LIBRARY

Los Angeles

This book is DUE on the last date stamped below.

MAR 24 1965

BIOMED

NOV 12 '86

NOV 03 1986

MAR 9 RECD

REC'D

MAR 17 1965

SEP 2 RECD

DEC 12 1988

Interlibrary Loans  
Due one week from receipt  
Non-renewable *Ranches*

JAN 24 1967

DEC 12 1988

JAN 26 RECD

BIOMED APR 10 '76

APR

REC'D

BIOMED LIB.

FEB 03 RECD

BIOMED FEB 10 '78

0-1300-7-56 (C8244) 444



3 1158 00180 4748

